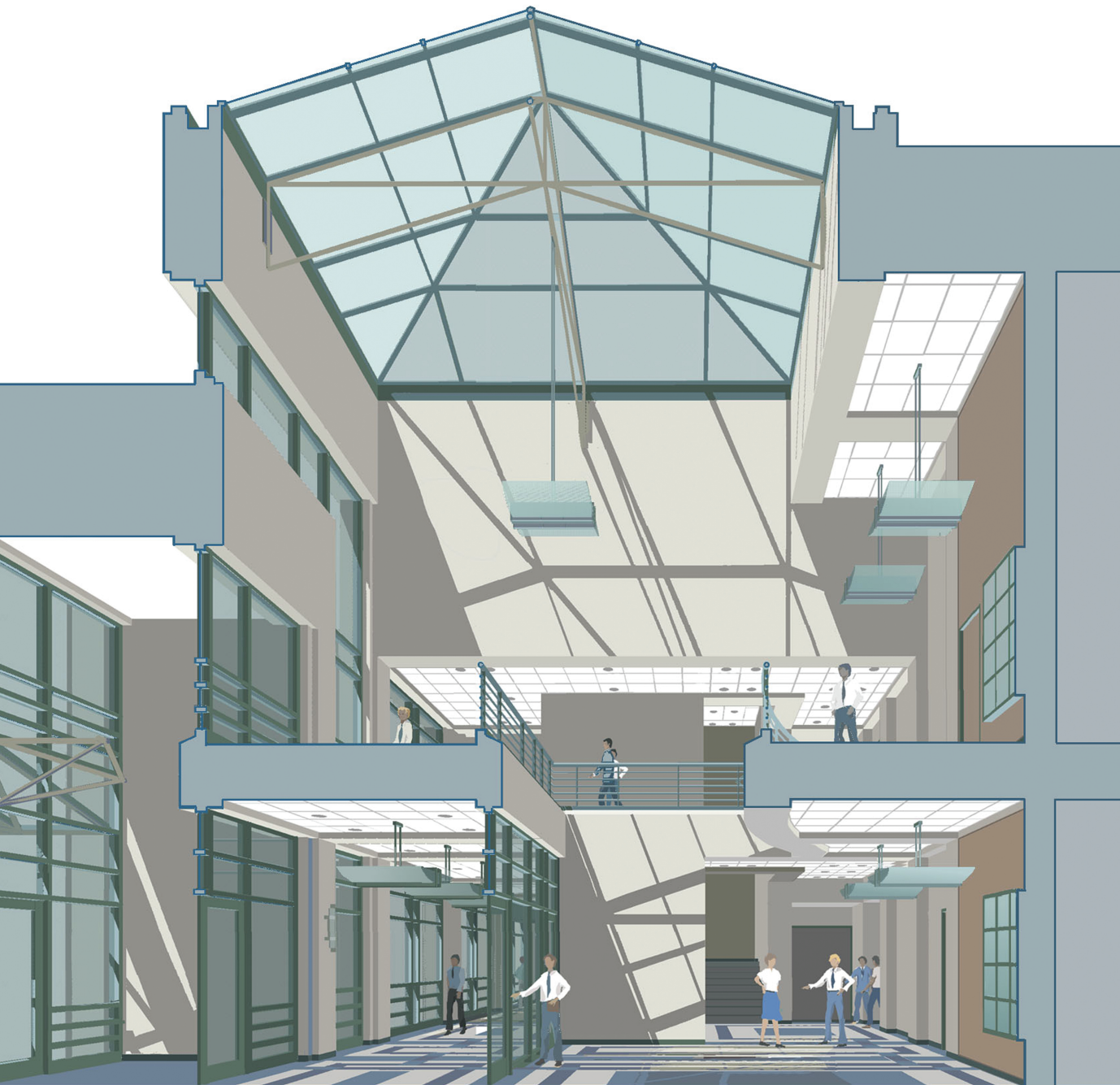


NAVAL WAR COLLEGE REVIEW

Summer 2006

Volume 59, Number 3



Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 2006	2. REPORT TYPE		3. DATES COVERED 00-00-2006 to 00-00-2006		
4. TITLE AND SUBTITLE Naval War College Review, Summer 2006, Volume 59, Number 3			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval War College,,686 Cushing Rd.,,Newport,,RI,02841			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 170	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Cover and Title Page

The cover image is a cross section looking west through the dramatic main lobby of McCarty Little Hall at the Naval War College. Shown are the glass canopy leading to the second-floor main entrance, the lobby vestibule, the connection to Conolly Hall, and the lobby. As built, the main entrance (where the figure in the white shirt stands) features an automated security turnstile. At the lower right is the entrance to the auditorium; above it is the balcony overlook. The Boston-based architectural firm of Shepley Bulfinch Richardson and Abbott designed the building to complement the existing Naval War College academic complex in siting, massing, rhythmic expression, color, and materials. In particular, McCarty Little Hall takes many of its architectural cues from the center building of that complex, Conolly Hall, to which the building is connected by an enclosed bridge.

The title page image is an aerial view of McCarty Little Hall, focused on the main entrance plaza. This, in the architectural concept, terminates the dignified approach for visiting game participants and prominent visitors from the on-axis entry drive. The symmetrical building is organized around four corner towers that flank the four distinctive facades; they facilitate the grade change from the two visible floor levels on the south and east facades to the three visible levels on the north and west facades. The slate-blue roof serves as a distinctive “fifth facade” and landmark, particularly when viewed from the Newport Bridge.

Both images courtesy Shepley Bulfinch Richardson and Abbott, which designs facilities for education, health care, science, and civic institutions. The firm also designed the research library at the U.S. Marine Corps University in Quantico, Virginia.

NAVAL WAR COLLEGE REVIEW

Summer 2006

Volume 59, Number 3



NAVAL WAR COLLEGE PRESS
686 Cushing Road
Newport, RI 02841-1207

NAVAL WAR COLLEGE PRESS ADVISORY BOARD

Professor Inis L. Claude, Jr.
Dr. Norman Friedman
Professor Colin Gray
Captain Wayne P. Hughes, Jr., *U.S. Navy, Ret.*
Professor Paul M. Kennedy
Professor James R. Kurth
The Honorable Robert J. Murray
Professor George H. Quester
Lieutenant General Bernard E. Trainor,
U.S. Marine Corps, Ret.
The Honorable G. William Whitehurst

NAVAL WAR COLLEGE REVIEW EDITORIAL BOARD

Col. James Conklin, USMC, *Naval War College*
Audrey Kurth Cronin, *Oxford University*
Peter Dombrowski, *Naval War College*
Stephen Downes-Martin, *Naval War College*
Derek S. Reveron, *Naval War College*
Col. Theodore L. Gatchel, USMC (Ret.),
Naval War College
Dennis Mandsager, *Naval War College*
William C. Martel, *The Fletcher School*
Mackubin Owens, *Naval War College*
Peter M. Swartz, *The CNA Corporation*
Scott C. Truver, *Anteon Corporation*
Karl F. Walling, *Naval War College*
James J. Wirtz, *Naval Postgraduate School*

PRESIDENT, NAVAL WAR COLLEGE

Rear Admiral Jacob L. Shuford, *U.S. Navy*

PROVOST AND DEAN OF ACADEMICS

Dr. James F. Giblin, Jr.

ACTING DEAN OF NAVAL WARFARE STUDIES

Robert C. Rubel

Dr. Carnes Lord, *Editor*
Pelham G. Boyer, *Managing Editor*
Phyllis P. Winkler, *Book Review Editor*
Lori A. Almeida, *Secretary and Circulation Manager*
Frank Uhlig, Jr., *Editor Emeritus*

EDITORIAL OFFICES

Naval War College Review
Code 32, Naval War College
686 Cushing Rd., Newport, RI 02841-1207
Fax: 401.841.1071

DSN exchange, all lines: 948
Website: www.nwc.navy.mil/press

Editor, Circulation, or Business
401.841.2236
press@nwc.navy.mil

Managing Editor
401.841.4552
managingeditor@nwc.navy.mil

Newport Papers, Books
associateeditor@nwc.navy.mil

Essays and Book Reviews
401.841.6584
bookreviews@nwc.navy.mil

Other Naval War College Offices
401.841.3089

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

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

Contributors

Please request the standard contributors' guidance from the managing editor or access it online before submitting manuscripts. The *Naval War College Review* neither offers nor makes compensation for articles or book reviews, and it assumes no responsibility for the return of manuscripts, although every effort is made to return those not accepted. In submitting work, the sender warrants that it is original, that it is the sender's property, and that neither it nor a similar work by the sender has been accepted or is under consideration elsewhere.

Permissions

Reproduction and reprinting are subject to the Copyright Act of 1976 and applicable treaties of the United States. To obtain permission to reproduce material bearing a copyright notice, or to reproduce any material for commercial purposes, contact the editor for each use. Material not bearing a copyright notice may be freely reproduced for academic or other noncommercial use; however, it is requested that the author and *Naval War College Review* be credited and that the editor be informed.

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

ISSN 0028-1484



CONTENTS

From the Editors 5

Preparing to Prevent Crises 7
Senator Dick Lugar

President’s Forum 17

Japanese Maritime Thought: If Not Mahan, Who? 23
Toshi Yoshihara and James R. Holmes

Postwar Japan is a case study in strategy making without a larger theoretical framework. Imperial Japan’s attachment to Mahanian strategic theory did not outlive World War II. Japan’s break with Mahanian thought, however, is occurring at a moment in history when China’s ambitions could usher in a new age of Mahan.

Maritime Medicine

Medical Command and Control in Sea-Based Operations 53
*Captain Arthur M. Smith, MC, U.S. Navy Reserve (Retired),
and Captain Harold R. Bohman, MC, U.S. Navy*

Today, in attempting to transform itself to meet twenty-first-century requirements, the Navy is emphasizing not only increased readiness but also the ability to deploy naval forces quickly in response to crises and conflicts around the world, notwithstanding homeland defense needs. One element of that transformation is likely to be the joint “sea base.” If so, a series of questions will need to be answered from a medical perspective.

**U.S. Coast Guard Health Services Responders
in Maritime Homeland Security** 73
Captain Arthur J. French, MD, USPHS, Joe DiRenzo III, and Chris Doane

In the Coast Guard’s superb search-and-rescue response to Hurricane Katrina, there was a noticeable absence of Coast Guard medical personnel. The U.S. Coast Guard’s health services are not prepared for the operational role that will be forced upon them by a maritime mass-casualty incident, whether terrorist attack or accident—on a vessel, in a harbor, or on the waterfront. Organizational and cultural change will be required to achieve all-hazards first-response preparedness.

Naval History

**Geography, Technology, and British Naval Strategy
in the *Dreadnought* Era 89**

Jon Tetsuro Sumida

Alfred Thayer Mahan and Admiral Sir John Fisher disagreed about capital-ship design and the utility of history as a guide to formulating naval policy, but the main difference between their ways of thinking about strategy was over the best means of defending the British empire in a maritime war. Where Mahan called for concentration at the center, Fisher contended that defense could be achieved at the periphery.

**The Attack at Taranto
Tactical Success, Operational Failure 103**

Lieutenant Colonel Angelo N. Caravaggio, Canadian Forces

The 1940 British air attack on the Italian battle fleet at Taranto Harbor has rightly been celebrated. However, measuring the success gained against the objectives assigned, the attack can be assessed only as a limited tactical victory with limited operational impact—a priceless opportunity lost.

**Night Session of the Presidium of the Central Committee,
22–23 October 1962 129**

Alexander Fursenko

translated by Yuri M. Zhukov

A Russian historian of the 1962 Cuban missile crisis argues from archival evidence that while authority to use tactical nuclear weapons was never delegated to local Soviet commanders, it was only with difficulty (and the assistance of the Navy commander in chief) that hard-liners were prevented from pushing through a potentially dangerous policy.

In My View 141

**Review Essay
How the Japanese Lost the Battle of Midway 145**

Shattered Sword: The Untold Story of the Battle of Midway,
by Jonathan B. Parshall and Anthony P. Tully

The Unknown Battle of Midway: The Destruction of the American Torpedo Squadrons,
by Alvin B. Kernan

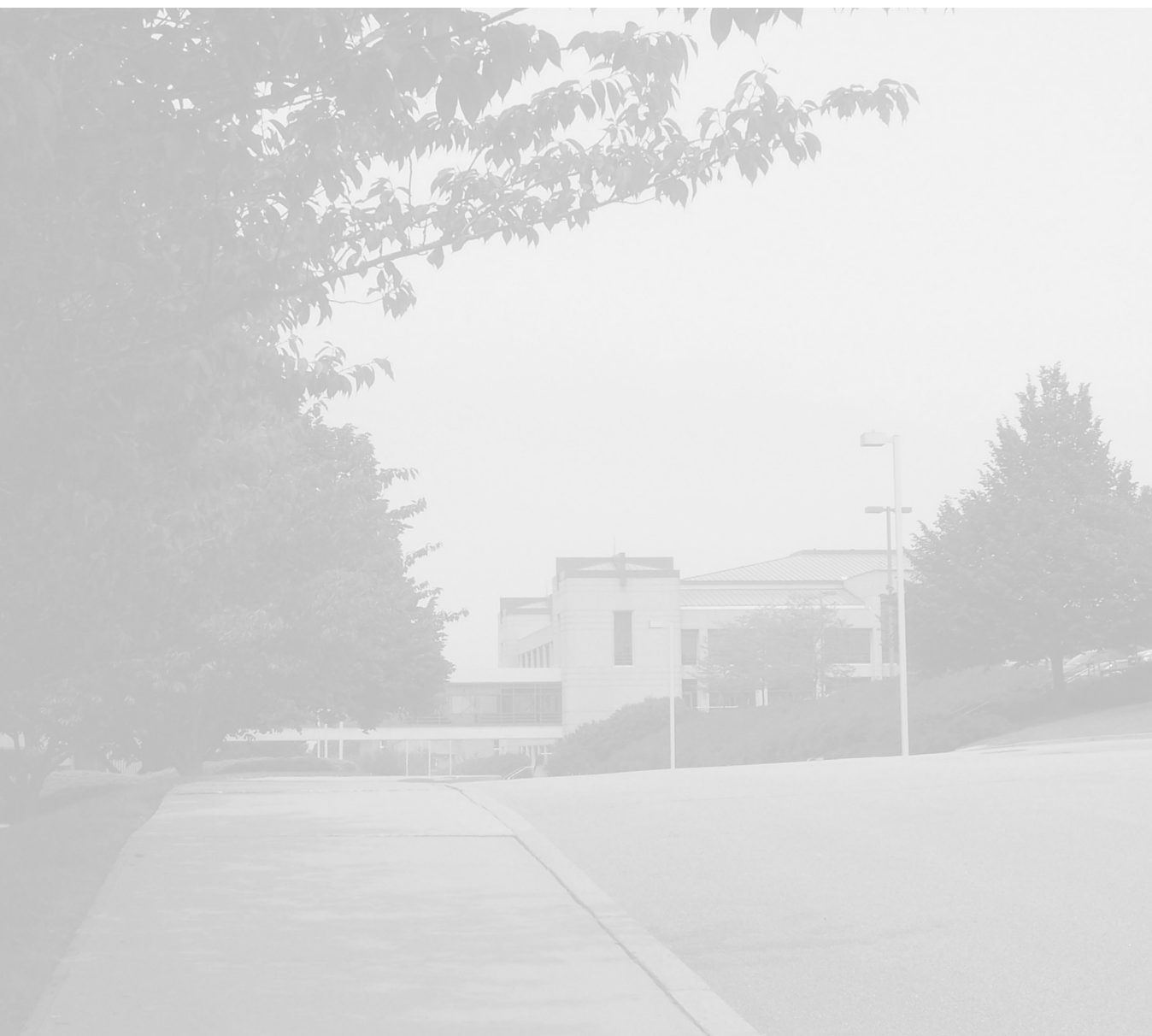
reviewed by Thomas Wildenberg

Book Reviews

- Protecting Liberty in an Age of Terror*,
edited by Philip B. Heymann and Juliette N. Kayyem
reviewed by Jane G. Dalton 149
- South Africa's Weapons of Mass Destruction*,
by Helen E. Purkitt and Stephen F. Burgess
reviewed by Jonathan Stevenson 150
- Imperial Grunts: The American Military on the Ground*, by Robert D. Kaplan
reviewed by Zygmunt F. Dembek 151
- The Submarine: A History*, by Thomas Parrish
reviewed by William S. Murray 152
- Forging the Shield: Eisenhower and National Security for the 21st Century*,
edited by Dennis E. Showalter
reviewed by Douglas Kinnard. 154
- Making Waves: Politics, Propaganda, and the Emergence
of the Imperial Japanese Navy, 1868–1922*, by J. Charles Schencking
reviewed by S. C. M. Paine. 155
- The British Seaborne Empire*, by Jeremy Black
reviewed by John B. Hattendorf 156
- Her Majesty's Spymaster: Elizabeth I, Sir Francis Walsingham,
and the Birth of Modern Espionage*, by Stephen Budiansky
reviewed by John R. Arpin. 157
- A Call to the Sea: Captain Charles Stewart of the USS Constitution*,
by Claude Berube and John Rodgaard
reviewed by Charles Brodine 158

Books Received 161

In the Journals 163



FROM THE EDITORS

The lead article in this issue of the *Review* continues our exploration of contemporary developments in the maritime domain in Asia. James Holmes and Toshi Yoshihara, in their tour d'horizon of Japanese naval thinking from the late nineteenth century to the present, offer an intriguing contrast between the decline of Mahanian navalist theory in Japan following World War II and the theory's recent rise in the People's Republic of China, and they challenge the Japanese military leadership to face up to the implications of the current lack of a broad strategic concept governing Japan's approach to regional maritime threats.

Alfred Thayer Mahan is a recurring point of reference in these pages. In his discussion of the relationship between the thought of Mahan and the strategy of Admiral Jackie Fisher of the Royal Navy prior to World War I, Jon Tetsuro Sumida usefully reminds us that this giant of American (and not only American) maritime strategy was often seriously misunderstood in his own time and that the problematic relationship of theory and practice in naval and military affairs, reflecting as it does the shifting interplay of history and technology, is part of what makes strategy formulation hard.

Strategy is also hard, of course, because of the bureaucratic and cultural divides too frequently separating military strategists from political decision makers. During the Cuban missile crisis of 1962, as discussed here by Alexander Fursenko, Soviet leader Nikita Khrushchev's ignorance of naval matters might have proved fatal had it not been for a decisive and hitherto unknown intervention by the head of the Soviet Navy, Admiral Sergei Gorshkov. Fursenko's paper, based on research in newly opened Soviet archives, was originally presented at a conference on "The Cold War at Sea," sponsored by the Center for Naval Warfare Studies in May 2004.

This issue of the *Review*, it will be noticed, introduces a new feature. "In the Journals" will bring to our readers' attention on a regular basis a small selection of what in our judgment constitute the most original or significant articles on national security matters appearing in the latest issues of English-language foreign affairs and defense-oriented journals. Readers are invited to make their own nominations for inclusion in this feature, with a brief explanation of the significance of the particular article. To do so, please contact our book review editor, Ms. Phyllis Winkler, at bookreviews@nwc.navy.mil.

KOREA: THE EAST ASIAN PIVOT

Korea: The East Asian Pivot, edited by Jonathan D. Pollack as the second in the Policy Studies Series of the Naval War College Press, extends the focus on East Asia evident in the first volume of this series, *Strategic Surprise? U.S.-China Relations in the Early Twenty-first Century* (2003), also edited by Dr. Pollack. The papers in the volume, by an international and highly distinguished group of scholars and analysts, were first presented at the Naval War College's Asia-Pacific Forum of August 2004. They examine from a variety of perspectives how, nearly sixty years after the establishment of rival states on the 38th Parallel and fifteen years after the end of the Cold War, "the ground is shifting in Korea." This book is a groundbreaking contribution to the study of contemporary Northeast Asia and to the wider debate on fundamental issues of national strategy and policy. The book is available from the U.S. Government Printing Office; visit its online bookstore at bookstore.gpo.gov/.

NEWPORT PAPER 24

Professors and other instructors of university courses touching on naval, maritime, and national security matters may want to consider our twenty-fourth Newport Paper—*Naval Power in the Twenty-first Century*, edited by Peter Dombrowski and issued in July 2005—as a reading. This anthology of recent articles originally printed in the *Review* "that particularly deserve a second or third look" (as Professor Dombrowski suggests in his foreword) addresses the changing security environment, the emerging roles and missions of the Navy, and naval transformation. Copies are still available, free of charge while they last. Ask the editorial office for an examination copy or visit the Newport Papers page of our website.

PREPARING TO PREVENT CRISES

Address delivered at Naval War College graduation ceremonies on 16 June 2006, by Senator Dick Lugar

It is an honor to celebrate the graduation of another remarkable class from the Naval War College. I congratulate you on the hard work that has led to this day. This is a high moment in the lives of our graduates and in the lives of all who have given inspiration and support to them. We are especially appreciative of the families of the graduates. The work the graduates have done in the past and will do in the future is sometimes dangerous and often personally consuming. It requires patience, courage, and love from family members. Their sacrifices have made this day possible, and they are an indispensable element of our national security.

I am excited to be with so many individuals who have dedicated their lives to protecting our country and building international order. Since its establishment in 1884, the Naval War College has been a prolific contributor to the intellectual inquiry and skill development that our government and our military need to advance peace in the world. It has brought together representatives from all the military branches and numerous civilian agencies, as well as students from every corner of the globe, for shared studies and discussion.

Around the United States during the last two months, ceremonies have commemorated the graduation of students from institutions of higher learning. But few graduates, if any, are poised to have as much impact as you on our world in a historic moment of need. We are now sending you back into a geopolitical climate that is uncertain and dangerous. We are asking you to take on burdens that will weigh heavily on you and your families. We are asking you to perform extraordinary acts of leadership on a routine basis.

Seeking Global Transformations

In May, I had the pleasure of delivering a graduation address at St. Joseph's College, a small liberal arts college in Rensselaer, Indiana. It was a picturesque and memorable occasion—though far more landlocked than today. The class consisted of 150 bright graduates, mostly twenty-one- and twenty-two-year-olds

from the Midwest. It would be difficult to pick two more different graduating classes to address in the same year. In fact, some of you may have children who have graduated from college or will soon do so. But despite the differences in your ages and circumstances, my message to you today has some similarities to what I said to them—namely, that the world is never far from transformational events. In your world, this means that no matter how many threats appear on the horizon or how intractable our national security problems appear, we should not rule out transformations that change the fundamental circumstances of the world order. We should be planning for these transformational events, and indeed, even attempting to make them happen. A nation such as ours that led alliances to victories in two world wars, helped rebuild Western Europe and Japan after World War II, won the Cold War, and expanded NATO to include twenty-six nations should not see any transformation as beyond the realm of possibility.

Political leaders and military planners continually attempt to foresee dangerous contingencies involving nations with whom we have current differences or whose fundamental interests may conflict with ours in some future scenario. This planning is a normal and necessary part of protecting our national security, and no institution has done it better than the Naval War College.

In a world as dangerous as ours, with terrorist groups and rogue states seeking weapons of mass destruction, it is natural to fix on the most imminent and dangerous of these problems. But we must always guard against defining foreign policy solely as a response to negative contingencies.

Much has been made of President Bush's rhetorical flourish in his January 2002 State of the Union Address that identified an "axis of evil" made up of Iran, Iraq, and North Korea. There is no doubt that these three countries each presented grave foreign policy dilemmas requiring concentrated attention. That continues to be the case.

But to the degree that the American military and foreign policy establishment responded by defining foreign policy as a campaign to address the threats posed by these three small to midsized nations, we subordinated strategic thinking to a set of standing crises. Crisis decision-making tends to compress options and often fails to allow for broader strategies that might require more time. Ironically, if we define U.S. foreign policy primarily in terms of crisis management, we usually make solving crises more difficult.

Often we need to pause to remember that the practice of foreign policy is not defined by a set of crisis decisions. Unfortunately, reporters, politicians, and even most historians portray foreign policy as a series of great diplomatic events. This perception is reinforced by books and movies about dramatic moments in diplomatic history, such as the Cuban missile crisis or the Berlin airlift. These

events capture our imagination, because we relive the struggles of leaders during times of great risk as they weigh the potential consequences of their actions. We ask whether presidents and prime ministers were right or wrong in adopting a particular course.

But crisis decision-making is a very small slice of a nation's foreign policy. A successful foreign policy depends much more on how well a nation prepares to avoid a crisis. When a nation gets to the point of having to make tactical choices in a time of peril, it almost always faces a choice between a bad option and a worse option. Crisis decision-making is to foreign policy what a surgeon is to personal health. Whether a body will resist disease depends on good nutrition, consistent exercise, and other healthy preparations much more than the skill of a surgeon employed as a last resort after the body has broken down. The preparation for good health and for a strong foreign policy is the part that we can best control, and it is the part that must receive most of our energies and resources.

No amount of skillful decision making can make up for a diminishment of the core strength of U.S. foreign policy. Maintaining this core strength is painstaking work. It can be measured in alliances, trading partners, diplomatic capabilities, exchange programs, international agreements, global respect, and numerous other factors. With this in mind, each of you should think how you can contribute to the retooling of U.S. foreign policy. And you should think about how we can undertake broad diplomatic offensives based on that core strength, which will achieve transformational outcomes. The United States must be ambitious at working with other nations to shape the world, because this is what will prevent crises in the future.

India Nuclear Agreement

Let me discuss with you a current debate before the Congress and our country. I believe it is critical that the U.S. Congress come to conclusions about President Bush's proposed civilian nuclear agreement with India. The India agreement represents the most important strategic diplomatic initiative undertaken by President Bush, and it represents a fundamental departure from the crisis-management mentality that has dominated foreign policy in both the executive and legislative branches in recent years. By concluding this pact and the far-reaching set of cooperative agreements that accompany it, President Bush has embraced a long-term outlook that seeks to enhance the core strength of our foreign policy in a way that will give us new diplomatic options and improve global stability. With this agreement, the president and Secretary of State Condoleezza Rice are asking Congress to see the opportunities that lie beyond the horizon of the current presidential term.

As such, a congressional rejection of the agreement—or an open-ended delay—risks wasting a critical opportunity to begin to expand beyond our Cold War alliance structures to include dynamic nations with whom our interests are converging.

Many members of Congress, including myself, have been studying the implications of the nuclear pact on nonproliferation policy. India has not signed the Nuclear Nonproliferation Treaty, and it has developed and tested nuclear weapons. The U.S.-India agreement would allow India to receive nuclear fuel, technology, and reactors from the United States—benefits that were previously denied to it because of its status outside the treaty. We should be concerned about the precedent set by this action, and we must ensure that this agreement does not undercut our own responsibilities under the Nonproliferation Treaty.

But I believe that we can do that satisfactorily. Both houses of Congress are working through language that would guide our policy toward India. I believe that we can help solidify New Delhi's commitments to implement strong export controls, separate its civilian nuclear infrastructure from its weapons program, and place civilian facilities under International Atomic Energy Agency (IAEA) safeguards. This agreement also would be a powerful incentive for India to cooperate closely with the United States in stopping proliferation and to abstain from further nuclear weapons tests. These outcomes could represent important advancements for nonproliferation policy.

The administration's declaration that we would welcome India's advancement as a major economic and political player on the world stage represents a strategic decision to invest political capital in a country with a vibrant democracy, rapidly growing economy, and increasing clout. With a well-educated middle class that is larger than the entire U.S. population, India can be an anchor of stability in Asia and an engine of global economic growth.

It can also be a key partner in countering global extremist trends. Both of our countries understand the importance of opposing violent movements through the promotion of religious pluralism, tolerance, and democratic freedoms. As a country with well entrenched democratic traditions and the world's second-largest Muslim population, India can set an example of a multireligious and multicultural democracy in an otherwise volatile region.

India's growing energy demand—likely to double within twenty years—makes global energy security an integral part of our strategic dialogue and provides important opportunities for cooperation. I introduced S. 1950, the "U.S.-India Energy Security Cooperation Act," last November to take advantage of these opportunities to cooperate with India on reducing global oil dependence. The bill, which has been passed by the Senate Foreign Relations Committee, promotes and authorizes funding for joint research and development of alternative energy

sources and clean coal technologies. It is essential that we elevate our energy dialogue with India and work together to increase the availability of clean energy and help stabilize world energy markets.

We already are beginning to see strategic benefits from developing closer relations with India. For instance, India's votes at the IAEA on the Iran issue last September and this past February demonstrate that New Delhi is able and willing to adjust its traditional foreign policies and play a constructive role on international issues. While acknowledging that India prizes its strategic autonomy, it will have increasing incentives to use its influence to help sway debates and events in other areas that serve stability and global economic progress.

Building on Our Relationship with China

Whenever discussions of the strategic vision behind the India nuclear agreement occur, inevitably the subject of China arises. Some analysts contend that India's ability to act as a counterweight to China is the primary strategic benefit of the deal. Though I understand the impulse behind this thinking, it oversimplifies global relationships in the twenty-first century, and it underestimates the broader value of engaging India as a partner in a changing world. Both India and the United States have reason to be vigilant about the growth of Chinese military power, but it is far from clear how a U.S.-Indian partnership of the type envisioned by the agreement would contain China or why India would participate with the United States in such a containment regime.

We should not see India as a card to play in balance-of-power games. Alliances based on shared dangers can have a long shelf life if the threat is intense enough, but they are rarely transformational. We need more from India than security cooperation. We need a partner that sits at the intersection of several strategic regions and that can be a bulwark for stability, democracy, and pluralism.

Seeing India as merely a counterbalance to China also makes the mistake of presuming that China is destined to be an enemy. Even as the United States must speak forthrightly about our current differences with China over numerous issues, we should not assume that we cannot build a foundation of mutual interests with China that will support a positive relationship with that nation over time. In fact, we have been doing this for several decades, with varying degrees of success. China is our third-largest trading partner and our fourth-largest export market. U.S.-China trade has increased from just five billion dollars in 1980 to \$285 billion in 2005. China has become an enormous stakeholder in the international economy.

The scope of our relationship with China is circumscribed by that nation's lack of democracy and its troubling human rights record. But few problems in Asia are going to be addressed without the cooperation of China. Beyond trade

and investment, we have mutual interests in regional stability, combating diseases that know no borders, and developing new energy sources that relieve our dependence on fossil fuels.

The New Energy Realism

It is no coincidence that the future of our relations with India and China intersect heavily with energy. Although a consumer cartel is probably not a viable response, fossil-fuel-dependent nations can forge agreements that further energy technology and conservation.

The transformational goals about which I have spoken argue against expecting any nation to be an enemy perpetually into the future. But though we may not have inevitable enemies, we do have inevitable vulnerabilities. Chief among these is our dependence on oil. This institution understands better than almost any other what it means to plan for securing the oil lifeline from the Middle East. But military responses to our energy vulnerability will have decreasing relevance in a world where the price of oil is determined by leaders of national governments and spare oil production capacity exceeds daily world oil consumption by a safety margin of less than 2 percent.

The United States consumes 25 percent of the world's oil, even though we account for less than 5 percent of its population. If oil prices averaged just sixty dollars a barrel through 2006, we would spend about \$320 billion on oil imports this year. Most of the world's oil is concentrated in places that are either hostile to American interests or vulnerable to political upheaval and terrorism. And demand for oil will increase far more rapidly than we expected just a few years ago. Within twenty-five years, the world will need 50 percent more energy than it does now.

The potential scarcity of energy supplies and the imbalances that exist among nations create grave threats to global security and prosperity. Up to this point in history, the main concerns surrounding oil and natural gas have been how much we pay for them and whether we will experience supply disruptions. But in decades to come, the issue may be whether the world's supply of fossil fuels is abundant and accessible enough to support continued economic growth, both in the industrialized West and in large rapidly growing economies such as China, India, and Brazil. When we reach the point that the world's oil-hungry economies are competing for insufficient supplies of energy, fossil fuels will become an even stronger magnet for conflict than they already are.

In the short run, dependence on fossil fuels has created a drag on the economic fortunes of households around the world, as higher oil prices have driven up heating and transportation costs. In the long run, this dependence is pushing the world toward an economic disaster that could mean diminished living standards, increased risks of war, and accelerated environmental degradation.

Increasingly, energy supplies are the currency through which energy-rich countries leverage their interests against energy-poor nations. Oil and natural gas infrastructure and shipping lanes remain targets for terrorism. The bottom line is that critical international security goals, including countering nuclear weapons proliferation, supporting new democracies, and promoting sustainable development, are at risk because of overdependence on fossil fuels.

These factors require what I have called “the new realism” of energy policy. Pro-oil advocates have long claimed to be the realists in the energy debate. They argued that alternatives to fossil fuels were not abundant enough or applicable enough to our energy infrastructure to relieve us in a meaningful way from our dependence on oil. The pro-oil commentators maintained that the primacy of fossil fuels was a choice of the marketplace, and they asserted that our government could and should do little to change this. Advocates of energy alternatives were considered to be unrealistic dreamers who did not understand how the world worked.

But the rapidly rising price of oil, its increasing concentration in the hands of state-owned entities, and the threat that energy will be used as a weapon by petro-superpowers have changed the balance of realism. We have entered a different energy era that requires a much different response than in past decades. What is needed is an urgent national effort to ensure that American ingenuity and resources are fully committed to this problem.

I believe that we can develop alternative sources of energy and the means to distribute them. But this will require national commitment, leadership at the highest levels of our government, and an aggressive diplomatic campaign to improve cooperation with like-minded nations. It also will require representatives of every military service and government agency to understand the problem and cooperate in its solution.

The Task before Us

The Naval War College and its graduates have been in the vanguard of strategic thinking in this country, and we ask you to continue that tradition. Less than a year after the birth of the Naval War College, in March 1885, President Grover Cleveland exemplified the nation’s attitude toward foreign affairs in his first inaugural address. He devoted just a single paragraph to our relations with other countries. He defined the American foreign policy perspective as “the policy of neutrality, rejecting any share in foreign broils and ambitions on other continents and repelling their intrusions here.” Some may long for the simplicity of that time, but most of us believe that our national security is intertwined with what happens in the furthest corner of the globe. We affirm that the United States must not only participate in world events—it must provide leadership.

I am confident that you will not be discouraged or defeated by the difficult work before you. You will affirm the commitment to excellence that you have shown here by expanding your abilities to serve our nation and the cause of world peace.

We bear a huge responsibility in leading our nation to a more secure and prosperous future and in strengthening the international community to solve global problems. With patient investments in the building blocks of national security and attention to long-term strategic opportunities, the United States will thrive in this new century as we did in the last.

I am heartened by your unfailing devotion to this important work. We are proud of the accomplishments that you have achieved here, and we look forward to all that you will do in the coming years.

SENATOR DICK LUGAR

Richard G. Lugar, the senior senator from Indiana (R), is chairman of the Senate Foreign Relations Committee.





Rear Admiral Jacob L. Shuford was commissioned in 1974 from the Naval Reserve Officer Training Corps program at the University of South Carolina.

He began his career at sea aboard USS Blakely (FF 1072) with follow-on assignments as Operations Officer in USS Deyo (DD 989) and USS Mahan (DDG 42). He commanded the missile hydrofoil ship USS Aries (PHM 5), operating extensively throughout the Caribbean, and USS Rodney M. Davis (FFG 60), Battle Efficiency "E" winner, as part of the USS Independence Battle Group, operating in the western Pacific and Persian Gulf. In January 1998, Admiral Shuford assumed command of USS Gettysburg (CG 64), deploying to Fifth and Sixth Fleet operating areas with the USS Enterprise Battle Group. Gettysburg played a prominent role in operations in the Adriatic during the Kosovo crisis and in the Persian Gulf during Operation DESERT FOX, acting as Air Warfare Commander for dual-carrier battle group operations (Carl Vinson and Enterprise) and successfully firing 100 percent of the sixty-nine Tomahawk missiles tasked during strike operations. The ship was awarded the Battle Efficiency "E" for Cruiser Destroyer Group 12.

His first shore tour was as the Operations and Plans Officer for Commander, Naval Forces Korea. In Washington, he served on the staff of the Chief of Naval Operations in N86 (directing the Surface Combatant Force Level Study) and in N3/N5 (as Chief of Staff for the Navy's Roles and Missions Organization). He also served as speechwriter and Special Assistant to the Secretary of the Navy. On the Joint Staff, he led a division in J8, the Force Structure, Resources and Assessments Directorate. From 1999 to 2001 he coordinated the Navy's legislative efforts in the U.S. Senate and was selected to flag rank in this assignment. His first flag tour was as the Navy's "Head Detailer," responsible for career development and assignment for the 370,000 men and women of the Navy.

Admiral Shuford was selected as an Olmsted Scholar in 1979, studying two years in France at the Paris Institute of Political Science. He holds master's degrees in public administration (finance) from Harvard and in national security studies and strategy from the Naval War College, where he graduated in 1991 with highest distinction.

He was installed as the fifty-first President of the Naval War College in Newport, Rhode Island, on 12 August 2004.

Admiral Shuford's personal awards include the Defense Superior Service Medal, the Legion of Merit (five awards), the Bronze Star, the Meritorious Service Medal (three awards), the Navy Commendation Medal (three awards), and the Navy Achievement Medal.

PRESIDENT'S FORUM



Creating a Thousand-Ship Navy

DEBATES ABOUT THE NUMBER and types of ships needed in the American navy have been going on since before we even had a country! Heated discussions on the purpose and size of a navy took place at meetings of the Continental Congress in 1775, and the Congress ultimately authorized the construction of only two armed sailing ships. Similar debate continues to this day. The high cost of shipbuilding and the need to balance land, sea, and air forces have driven the active fleet to below the three-hundred-ship level. In such an environment, how could we ever realize the “thousand-ship navy” demanded to meet most challenges to global maritime security? We can get there by assembling a global fleet of capabilities through active partnerships with friends and allies around the world.

In his remarks to Naval War College students in August 2005, the Chief of Naval Operations, Admiral Mike Mullen, noted that the time has come for the U.S. Navy to look at seapower as a team effort, not just with the Marine Corps and Coast Guard but also with international maritime partners, based upon shared objectives and relationships built on trust and confidence. He noted, “As we build upon ideas like Theater Security Cooperation, the Proliferation Security Initiative, the Regional Maritime Security Initiative, we find that every nation has a stake in security, and a distinct, unique capability—as well as a great desire—to contribute.”

He further advanced his vision with the 148 delegates from seventy-five nations who attended the Seventeenth International Seapower Symposium hosted in Newport in September 2005 and during the Secretary of the Navy’s Current Strategy Forum held at the College in June 2006, where he called for a “thousand-ship navy” composed of ships from navies around the world that were prepared to cooperate and operate routinely with one another. A key to enabling such

cooperation is naval leaders who are knowledgeable of the regions and sensitive to the cultures of both friends and any adversaries intent on undermining security in the global maritime domain. The Naval War College is playing a major role in developing the competencies of the men and women from the United States and around the world who will help conceptualize, build, and operate this navy.

Building Foundations for Engagement and Global Maritime Security

Beginning with the 2006–2007 academic year, all of our educational programs at the primary, intermediate, and senior levels will meet the requirements recently established by the Chairman of the Joint Staff for regional expertise and cultural awareness. This focus was included as a key element of the new Primary Professional Military Education (PME) course that we launched in May 2006. Our restructured intermediate-level and senior-level PME curricula, which came online last fall, also incorporate significant new content. The new curricula have been developed with regional expertise and cultural awareness as persistent themes throughout both intermediate-level and senior-level programs. Regionally focused sessions have increased from 13 percent to 34 percent in our National Security Decision Making curriculum; a new course theme on “Culture & Societies” has been added to the Strategy & Policy curriculum; and the Joint Military Operations curriculum has been redesigned to—among other things—require students to use regional expertise and cultural skills in a five-week series of application exercises. Changes will also be reflected in our nonresident programs, with full implementation in the intermediate-level nonresident programs by the 2007–2008 academic year. Students will be exposed to regional issues in each of the world’s five major regions. We expect that our students in both the intermediate-level and senior-level courses will be able to:

- Describe U.S. national security interests in one or more countries in each region
- Describe most elements of culture, geography, government, recent history, current economics, and religion of one or more countries in each region
- Describe in detail some of the military elements of doctrine, organization, training, equipment, logistics, history, and traditions of one country in three of the world’s regions.

To develop regional expertise further, many students may choose to use the 20 percent of the academic workload that constitutes their electives program to study in one of five areas of concentration:

- Asia-Pacific
- Latin America/Western Hemisphere

- Africa
- The Greater Middle East
- Eurasia.

Students in these regional studies tracks will complete a total of ninety hours of classroom work supplemented by a twelve-to-fifteen-hour colloquium across the academic year. Each colloquium will be led by a practitioner/scholar who is a preeminent expert in the particular region. The Navy is establishing Additional Qualification Designators, which will be recorded in service records to identify graduates with this level of regional expertise and cultural awareness so they can eventually be assigned to billets where they can best leverage this education and experience. All U.S. military students will be eligible to enroll in one of these tracks beginning in the fall.

Expanded International Programs

We are now seeing the results of efforts made recently to increase the impact of our resident international programs. Annual enrollment in our Naval Command College (our senior-level international course) has expanded from thirty-nine students to fifty-two, and the U.S. students in each class are now screened and selected by the Chief of Naval Operations. The intermediate-level Naval Staff College (NSC) now offers a ten-month course that is fully integrated with the American students' College of Naval Command and Staff program. This ten-month course complements the more traditional five-month NSC program, which continues to be offered in the spring of each year. Taken together, these initiatives now provide opportunity for nearly 150 students annually, an increase of over 80 percent over the throughput of just five years ago. The objective of these programs remains building trust and confidence between our international partners. We will also seek to improve the command-and-control effectiveness of senior officers from the United States and partner nations, by offering in the fall of 2006 a flag-level Combined Force Maritime Component Command course, modeled on our successful Joint Force Maritime Component Commander course. A dozen flag officers from partner nations within specific regions will join with a dozen American flag and general officers in a week-long seminar focused on identifying and eliminating barriers to effective operations among friends and regional/coalition partners.

Global Engagement beyond the Classroom

Newport has been the site of the semiannual International Seapower Symposium for a half-century. The ISS brings together service chiefs and war college presidents of over seventy-five navies and coast guards for wide-ranging discussions of issues of mutual interest. Recognizing that most graduates of our

international programs become admirals—and that many (currently forty-two) become chiefs of their navies—a recent initiative seeks to build upon these relationships and those themes developed during ISS by hosting regional symposia with alumni in various parts of the globe. In October 2005, a conference was held in Yokosuka, Japan, for over forty alumni from throughout Asia; over two dozen European and African alumni came together in Naples, Italy, in April 2006 at a similar conference to address many of the issues of concern to navies in Europe and Africa.

Our five regional studies groups continue to expand their reach and impact. Through alignment with the major Department of Defense regional security centers, such as the George C. Marshall European Center for Security Studies and the Asia-Pacific Center for Security Studies, our regional studies groups collaborate on curriculum development and sponsor symposia, conferences, lectures, and war games. The college has also recently established the China Maritime Studies Institute, to contribute to the body of knowledge about maritime activities of the People's Republic of China, through analysis of open-source documents and databases.

I am particularly excited about the potential in our effort to expand relationships with war colleges and service academies around the world. Formal agreements on curricula, faculty, and student interaction now exist with the Maritime Staff College in Japan, the Russian Kuznetsov Academy, and the Joint Services Command and Staff College in the United Kingdom. We have just (in August) concluded the first of a series of five war games—designed to address issues of maritime security—with staff of the Kuznetsov Academy. Earlier this year we conducted what has become an annual two-week war game with the Japan Maritime Self-Defense Force; it included over fifty midgrade and senior Japanese officers who, with U.S. Pacific-theater counterparts, worked through a demanding scenario focusing on operational issues important to both navies. Discussions are ongoing with the leadership of eight other institutions, and agreements will likely be signed in the next twelve to eighteen months.

These “college-to-college” relationships are powerful tools in our ongoing efforts to learn *from* one another and *with* one another on issues of mutual concern. We are aided in these initiatives by the remarkable bond of brotherhood that exists among all mariners around the globe. We all share centuries of seafaring tradition and history, and our mutual respect for the sea and for each other helps us begin to operationalize the thousand-ship navy.

Professional Reading

Regional expertise and cultural awareness will also be enhanced Navywide through portions of the soon-to-be-launched Navy Professional Reading

Program. This innovative program will identify sixty books of particular value for sailors in all ranks, and it will make these books readily available in ship and station libraries around the world. The books have been arranged in categories that relate to important competencies that all Navy personnel will need to master for success in the future. The category entitled “Regional and Cultural Awareness” contains both fiction and nonfiction books that address regional/cultural themes. Books in this category include *The Great Wall at Sea: Modernizing China's Military*, *The Fate of Africa*, *Recognizing Islam*, *The Crisis of Islam*, *The Sand Pebbles*, *The Kite Runner*, and *A Passage to India*. Sailors who take the time to read such books will come away with an increased level of knowledge of and sensitivity to issues related to these regions and the cultures of some of the world's largest populations.

As you can see from the initiatives outlined above, the Naval War College is increasingly playing the role envisioned for it by its founders over 120 years ago. Alfred Thayer Mahan's seminal work *The Influence of Sea Power upon History* was written as “an examination of the general history of Europe and America with particular reference to the *effect of sea power* upon the course of that history.” Mahan clearly recognized that what happens at sea has great impact on affairs ashore and that mariners throughout history have had great impact on the outcome of world events. The Naval War College, through its many efforts focused on global engagement, seeks to help the U.S. Navy and its partners realize the thousand-ship-navy concept and ensure global maritime security, as well as the economic stability, prosperity, and peace it underpins.

A stylized, handwritten signature in black ink, appearing to read 'J. L. Shuford'.

J. L. SHUFORD

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

Toshi Yoshihara has served as a visiting professor at the U.S. Air War College, in Montgomery, Alabama, for the past two years and has recently accepted an appointment at the Naval War College. James R. Holmes is a senior research associate at the University of Georgia Center for International Trade and Security, Athens, Georgia. Their work on seapower in Asia has appeared in such journals as Comparative Strategy and Defence & Security Analysis, as well as the Naval War College Review.

JAPANESE MARITIME THOUGHT: IF NOT MAHAN, WHO?

Toshi Yoshihara and James R. Holmes

The late Colonel John Boyd, who knew a thing or two about strategic thought, was fond of declaring that excellence in warfare and other human endeavors depended on people, ideas, and hardware—in that order.¹ We postulate that Japan has lost sight of this commonsense axiom, allowing strategic thought to atrophy. If so, this decline in strategic thought could impede Tokyo's ability to act outside the confines of the U.S.-Japanese security alliance—as it might need to, given the rise of an increasingly capable, seapower-minded China and mounting frictions between Beijing and Tokyo. We ask the following questions to assess the state of strategic thinking in Japan's naval forces:

- Why does maritime strategy matter now, in an increasingly interconnected world? Does economic interdependence eliminate the resort to power politics?
- How did Alfred Thayer Mahan view seapower and its uses? How much influence did Mahan exert in imperial Japan?
- How strictly did the Imperial Japanese Navy adhere to Mahan's theories, and, when it departed from Mahanian theory, why did it do so, and with what impact?
- How much continuity was there in strategic thinking between the Imperial Japanese Navy and the Maritime Self-Defense Force? What impact did any shifts in strategic thought have?
- Which strategic theorists do Japanese naval officials consult when they are grappling with vexing issues? If not Mahan, whom?

- If indeed strategic thought has languished in postwar Japan's maritime forces, how might political and military leaders revive it? To which strategic theorists should they look?

We close with a few observations and policy recommendations for Tokyo's naval establishment. Given the preliminary nature of this inquiry, we leave the article somewhat open-ended, in hopes of starting a sorely needed debate in Japanese and American naval circles rather than supplying answers that are likely to be premature.

JAPAN, GEOGRAPHY, AND MARITIME STRATEGY

While it may no longer be fashionable to equate geography to destiny, Japan's physical position reaffirms this apparently quaint axiom. The concept of maritime power is inseparable from its spatial meaning. Maritime power is at its most basic level concerned with a nation's ability to exploit the sea—a physical, nautical medium. The immutable geographic realities that Japan confronts merit particular attention because they have shaped and will continue to shape Japan's interactions with its neighbors. Japan's maritime posture, then, has always been and will always be intimately linked to geography. The Japanese often describe their key national characteristic in nautical terms, with the familiar notion that “Japan is a small island nation lacking resource endowments and is thus highly dependent upon seaborne commerce for its well being.” Clearly, Tokyo must always be mindful of the surrounding oceans.

Yet additional geographic features impinge upon Japan's strategic and maritime postures. It is natural to compare Great Britain and Japan, two insular powers seaward of great continental landmasses.² Japan stands considerably off the Asian continent, with nearly a hundred miles separating Honshu Island from the Korean Peninsula. By contrast, only twenty miles separate Britain from continental Europe at the nearest point. Concentrated in a few pockets of flat terrain on the east coast, major Japanese cities face outward toward the Pacific rather than inward toward the continent. In effect they gaze out at the United States, whereas Britain's major population centers physically tend to direct attention toward their European neighbors. Historically such demographic positioning has reinforced the isolation and insularity of Japan, while Britain has interacted regularly with the rest of Europe. Japan's distinctive geographic and demographic conformation conditions its strategic preferences, pulling Tokyo in divergent directions: geographically, Japan is part of continental Asia, but demographically it inclines toward transpacific ties. Japan has been ambivalent about whether it is (or wants to be) an Asian or a Western power, whereas Britain has managed to craft a special relationship with the

United States across the Atlantic while acting as a traditional offshore balancer across the English Channel.³

Japanese geography carries strategic implications. The four main home islands stretch 1,200 miles, roughly the entire north-south length of the U.S. eastern seaboard. This archipelago, which extends along the Ryukyu Islands to the south, forms a long crescent that hugs the eastern flanks of Russia and China, Eurasia's greatest land powers. Japan seemingly stands in the way of naval power projection from the mainland.⁴ Chinese vessels exiting the East China Sea into the Pacific must contend with the Ryukyus, while the Korean Peninsula, in effect a half-island appended to Eurasia, thrusts out toward the Japanese archipelago like the proverbial "dagger aimed at the heart of Japan." These enduring geographic traits have been arbiters of interstate relations and wars among the four powers for over a century.⁵

Finally, the physical defense of Japan requires credible nautical power projection. Tokyo is saddled with seventeen thousand miles of coastline to defend. By comparison with the great powers, India's shoreline is 4,600 miles long, while China's extends eleven thousand miles, America's twelve thousand miles, and Russia's twenty-three thousand miles (primarily facing the empty Arctic). Lacking strategic depth—the widest east-west length of Honshu is a mere 160 miles—Japanese planners must think in terms of defending forward at sea, much as the Israelis do about land warfare.⁶ To complicate matters, Tokyo possesses thousands of offshore islands, with the farthest ones located near the Tropic of Cancer. Japan's Maritime Self-Defense Force (JMSDF, or MSDF) describes the nation's defense dilemma in vivid terms: if Wakkanai, the northernmost city of Japan, is Copenhagen, then the Ishigaki, Okinotori, and Minamitori islands are the equivalents of Casablanca, Tripoli, and Alexandria, respectively.⁷ In other words, Japan's maritime defense area encompasses an area as large as NATO-Europe, plus the entire Mediterranean.

Several implications flow from this geopolitical analysis. First, whereas continental powers have the option of venturing seaward or retreating from the oceans, Japan enjoys no such luxury. The importance of a coherent strategic framework for Japanese naval planners is hard to overstate. Second, and closely related, Tokyo cannot avoid entanglement with immediate neighbors that harbor maritime ambitions of their own. Japan is located near enough to the Eurasian continent that it must be alert for any realignment or imbalance in regional seapower. Third, if forced to defend its maritime interests by itself, Tokyo would not be able to ignore pressures to build up a maritime force far larger and more capable than its current modestly sized, if world-class, fleet. If Tokyo succumbed to these pressures, its actions would almost certainly bring about countervailing actions from its neighbors.

The bottom line: the direction and quality of Japanese strategic thinking about nautical affairs will have ripple effects on the international relations of East Asia and therefore bear careful examination. The following thus charts trends in Japanese maritime thinking from the prewar era to the twenty-first century and ventures some policy recommendations.

MAHAN'S SEAPOWER EVANGELISM

A century ago Japanese maritime thinkers, facing similar challenges, looked to America for guidance on seapower. Writing around the turn of the nineteenth century, Alfred Thayer Mahan exhorted an America long disdainful toward foreign political entanglements to amass a kind of “sea power” built on the “three pillars” of overseas commerce, naval and merchant fleets, and naval bases arrayed along the sea lanes to support fuel-thirsty warships.⁸ While there was a circular quality to his theorizing—the navy protected a nation’s trade, which in turn generated tariff revenue to support the navy—the commercial element of seapower seemed to be uppermost in his thinking. Mahan’s self-perpetuating logic beguiled advocates of seapower in his day, and it has a timeless quality.⁹ In today’s China, which aspires to its own place in the sun, appeals to Mahanian theory are increasingly commonplace.¹⁰

If there were any geographic bounds to Mahan’s vision of seapower, he did not say so. While his writings were appropriate to Great Britain or the United States, maritime nations with far-flung aspirations, they held only limited relevance for a fledgling power such as imperial Japan, whose aspirations were confined to regional waters and coastal areas. Where should an America rethinking political nonentanglement apply its nautical energies? In East Asia: for Mahan, seapower would assure the United States an equitable share of trade in China, a “carcass” doomed to be devoured by “eagles,” namely the great imperial powers.¹¹ If the United States failed to defend its share of the China trade—Mahanian thought had a strongly zero-sum tenor to it—it would lose out, with dire consequences for the nation’s prosperity.¹² Although he claimed to deplore the prospect of great-power war, Mahan seemed resigned to it if a rival injected “the alien element of military or political force” into peaceful seagoing commerce.¹³

Both merchant shipping and the U.S. Navy thus needed secure communications with East Asia. Communications, wrote Mahan, was “the most important single element in strategy, political or military.”¹⁴ The “eminence of sea power” lay in its ability to control the sea lines of communication, while the power “to insure these communications to one’s self, and to interrupt them for an adversary, affects the very root of a nation’s vigor.”¹⁵ Perhaps his central precept—and a staple of discourse in contemporary China—was his concept of “command of the sea” as “that overbearing power on the sea which drives the enemy’s flag from

it, or allows it to appear only as a fugitive; and which, by controlling the great common, closes the highways by which commerce moves to and fro from the enemy's shores."¹⁶ If the United States hoped to assure access to overseas markets, proclaimed Mahan, its navy must construct forces able to "fight, with reasonable chances of success, the largest force likely to be brought against it" in regions vital to American maritime traffic.¹⁷ This ability to impose a local preponderance of naval force was the hub of a prosperity-minded policy of seapower.

To "maximize the power of offensive action," which was "the great end of a war fleet," the United States needed a modest force of twenty armored battleships "capable of taking and giving hard knocks" in a major fleet engagement.¹⁸ Mahan disparaged *guerre de course*, or commerce raiding, as the strategy of the weaker power, hopeless in the face of a navy able to exercise overbearing seapower. His followers instead sought titanic clashes between concentrated fleets of battleships—in other words, a latter-day equivalent to Trafalgar.¹⁹

THE INFLUENCE OF MAHAN UPON JAPAN

Scholars agree that Japanese strategists leapt at Mahan's theories. Mahan recalled that his works had been more widely translated into Japanese than any other language.²⁰ In 1902, Admiral Yamamoto Gomei paid tribute to Mahan's analytical skills, offering him a teaching post at Japan's Naval Staff College.²¹ Declared Captain John Ingles, a British officer who taught at the Naval Staff College for six years, "Japanese naval officers are much impressed with the advantage in a land war of superiority at sea. They have been, I think, faithful students of the American naval historian, Captain Mahan."²²

But the exact nature of Mahan's influence on the Japanese naval establishment is a matter of some dispute. One view, seemingly predominant among contemporary scholars, draws a straight line between Mahanian precepts and prewar Japanese ideas about seapower. Ronald Spector describes the Japanese as "true disciples of Mahan."²³ Peter Woolley notes that "Japan took Mahan quite seriously. His books were carefully studied. His proclamation that navies were strategically dominant in the modern world was strongly embraced."²⁴ Richard Turk affirms that the Imperial Japanese Navy, or IJN, imbibed Mahanian seapower theory "in purer form" than did any other navy.²⁵ Clearly, a sizable body of scholarship accepts the notion that Alfred Thayer Mahan lent Japanese naval strategy its founding precepts and doctrine.²⁶

Other scholars take a more skeptical, more variegated view of the Mahan-Japan relationship. While Mahan earned acclaim from powerful naval leaders in Japan, in this account, he was far from the only influence on them. Both Akiyama Saneyuki and Satō Tetsutarō—the former commonly known as the "father of Japanese naval strategy," the latter as "Japan's Mahan"—drew intellectual

inspiration from many sources, ranging from ancient Japanese “water force” tactics to the writings of the Chinese theorist Sun Tzu. Satō spent six months studying naval strategy in the United States, but this came on the heels of eighteen months’ study in Great Britain, which after all was the world’s leading naval power and the model for aspirants to maritime preeminence.²⁷

Japanese strategists read Mahan’s works selectively, moreover, using his ideas to ratify preconceived ideas about how Japan should configure and use its navy. Even in the United States, some analysts have intimated, in a similar vein, that Mahan was more a propagandist than a perceptive strategic theorist. One, Margaret Tuttle Sprout, dubbed him an “evangelist of sea power.”²⁸ Roger Dingman, a leading skeptic, questions the extent of Mahan’s sway over the Japanese naval establishment: “I am skeptical of these claims about Mahan’s influence across the Pacific for several reasons. They are, in the first place, little more than claims, unsupported by any substantial body of evidence.”²⁹ Continues Dingman:

To suggest that Mahan the publicist of seapower was a tool of potentially great power to Japanese naval expansionists . . . is not to argue that he was in any sense the *cause* of their actions. . . . While they invoked his ideas and used his language in the wake of the Sino-Japanese War to justify fleet expansion, it was that conflict—and the prospect of another with Imperial Russia—that provided the much more basic sense of threat that yielded affirmative Diet votes for a bigger navy.³⁰

Conclude Dingman and like-minded analysts, Mahan was only part of a *mélange* of influences on Japanese naval thinkers. Japanese officials welcomed his emphasis on command of the sea, which seemed to reaffirm their experiences from wars with China and Russia, but they also used him freely to advance the IJN’s parochial aims.

If Mahan was only one among many intellectual influences on the IJN, seapower theory was only one among many political, bureaucratic, economic, and social factors that shaped the thinking of Japanese naval strategists. Notes one historian, the navy’s rise resulted in great part from an “interplay between power, pageantry, politics, propaganda, and nationalism.” Naval leaders “significantly altered politics, empire, and society in pursuit of their narrower and more parochial concerns, namely larger budgets.” “Politics,” he concludes, “was the lifeblood of the Japanese navy, as it was for the navies of Germany, the United States, and Britain in the same historical period.”³¹ Mahan made a useful ally for IJN leaders, helping them rally public support for an ambitious naval program—just as he made a useful ally to Theodore Roosevelt and his cohort of American navalists or, for that matter, to Admiral Alfred von Tirpitz in his tilts with socialists in the Reichstag.

Since the inception of the IJN, moreover, naval leaders had waged a bitter bureaucratic struggle with the Japanese army for preeminence in the eyes of the government and the populace. Bureaucratic politics tended to deflect Japanese naval strategy from the Mahanian trajectory it would have followed had the IJN abided purely by Mahanian precepts. For the Japanese navy of the mid-1890s, flush with victory over China, “the problem of grand strategy was more than a topic of theoretical discussion at the Naval Staff College. . . . [T]he navy . . . pressed for status beyond interservice parity, toward a position of seniority from which it could set the nation’s strategic priorities and claim the lion’s share of national prestige, public acclaim, and most important, the government’s military budget.”³²

To gain this senior position and the funding and prestige it would bring, IJN leaders realized they needed “a carefully elaborated statement of the preeminent importance of seapower, an argument backed by the weight of historical example, taken not just from Japan’s own past, but also from the far greater experience of the traditional maritime powers of the West.” In short, they set out to propagate a “public credo” as much as a rational maritime strategy.³³ From the Western maritime tradition, the peculiarities of Japan’s geopolitical situation, and the IJN’s parochial needs, they fashioned a “blue water” school of strategic thought about the sea.

IMPERIAL JAPAN’S QUASI-MAHANIAN NAVAL STRATEGY

As it took shape, then, Japanese naval strategy bore only partial resemblance to the seapower-minded strategy Alfred Thayer Mahan espoused. To be sure, leading IJN thinkers such as Akiyama, Suzuki Kantarō, and Satō—who served together at the Naval Staff College in 1910–11, imparting their vision of Japanese seapower to the World War II generation of naval officers—accepted Mahan’s general advocacy of dominant seapower.³⁴ Satō, note David Evans and Mark Peattie, “seems to have fallen under the spell of Mahan’s navalism in its most global sense,” namely “command of the seas as the projection of naval power abroad and thus the means to national greatness.”³⁵ Like Mahan, he accentuated the connection among naval strength, maritime trade, and world power, predicated his own seapower advocacy on *riko o sake, umi o susumu* (avoiding the continent and advancing on the seas). This beckoned naval leaders’ attention toward Southeast Asia.³⁶ This southerly, seafaring outlook on regional strategy stood in stark contrast to the prescriptions issuing forth from the Japanese army, which had cast its gaze westward, on the Asian landmass.

In his treatise *On the History of Imperial Defense* (1908) and other works, Satō both confirmed the priorities of the Japanese navy, which had been forged in

victories over the Chinese and Russian navies, and sculpted these priorities in line with his own meditations on history and theory. He accepted the Mahanian notion that assured communications was the *sine qua non* of great maritime power and that the way to assure communications was to build a battle fleet capable of sweeping the enemy's flag from vital waterways. From the battle of Tsushima, as well as from his study of Mahan, he concluded that the single, decisive fleet engagement was the arbiter of dominant seapower. Further, he clearly fell into the "big ship, big gun" camp that represented the mainstream of Japanese naval thought in the decades leading up to the Pacific War.³⁷ Japan did opt for a Mahanian battle fleet, planning for a climactic fleet engagement with the "hypothetical enemy" Satō Tetsutarō envisioned—the U.S. Navy.³⁸

But, as Dingman and other scholars aver, Satō and like-minded Japanese navalists adapted Mahanian seapower theory to Japan's distinctive geography and political and economic imperatives. How, and why, did they depart from Mahanian precepts? Several factors were in play. First, Mahan had identified six "principal conditions affecting the sea power of nations": geographical position; physical conformation, including climate and "natural productions"; extent of territory; number of population; character of the people; and character of the government and national institutions.³⁹ These indices of powerful seafaring nations guided Japan in a different direction from that of the United States, or even of Great Britain—to which, by virtue of its insular conformation and its geographic position on the Asian periphery, Japan bore the greatest resemblance.

IJN thinkers recognized that Japan was a regional power with limited resources, whereas Mahan had derived his theories from the example of Britain, the world's leading sea power, which had interests and commitments ringing the world. They also recognized that their government and people saw the nation not as a sea power in the British sense but as a land power that had wrested away territorial holdings on the nearby Asian landmass and thus had certain interests at sea. Navy leaders were forced to wage a lively debate with their army counterparts, lobbying for a maritime-oriented foreign policy and strategy. Army leaders argued that the IJN should content itself with defending the Japanese homeland against attack. Navy leaders pointed to the importance of the sea lines of communication connecting Japan to vital foreign resources and markets. They also questioned how the army planned to support expeditionary forces in Asia absent secure communications with the home islands. Secure sea communications, upheld by the IJN, were crucial to even the army's land-oriented vision.⁴⁰

Naval leaders thus crafted a modified Mahanian naval strategy that was local and particularistic. They paid little attention to island bases, one of Mahan's "pillars" of global seapower, accepting the reality of large-scale territorial conquests in nearby Korea, Manchuria, and coastal China. Akiyama, Suzuki, and

Satō did turn their attentions toward Southeast Asia as they applied Mahanian precepts to Japanese conditions. But it was not until the 1930s, when the IJN converted its warships from coal- to oil-fired propulsion, that their case for “advancing on the seas” in a southerly direction took on real urgency in terms of the national interest.⁴¹ Japanese thinkers realized that the “southern strategy” they contemplated would likely bring Japan in conflict with the European imperial powers, which held most of Southeast Asia, and ultimately with the United States. In the interwar period, accordingly, the IJN devised a strategy aimed at luring the U.S. Navy across the broad Pacific to a Mahanian fleet engagement, where it would reprise the battle of Tsushima.⁴²

Second, Japanese mariners were a product of their bureaucratic environment and their operational experiences, which primed them to look at seapower differently than had Mahan, the seapower historian and prophet. Satō and his fellow navalists were practitioners, serving in numerous sea billets, whereas the academically inclined Mahan had seen only scant sea duty and had possessed little taste for more. (“I am the man of thought, not the man of action,” confessed Mahan on one occasion, venturing an explanation as to why his perspective differed from that of Theodore Roosevelt, by any definition a man of action.)⁴³ They also understood that their immediate task was to win ascendancy over the army in the services’ perennial turf war. Indeed, Admiral Yamamoto Gomei rushed Satō’s *On the History of Imperial Defense* into print to help the navy make its case for bigger budgets and more ships.⁴⁴ These priorities help explain why Japanese navalists’ ideas diverged from those set forth by Mahan, who, comfortably ensconced in Newport, Rhode Island, was largely spared these everyday travails of navy life.

Japanese strategists focused primarily on tactics and operations rather than the more rarefied dimensions of naval warfare, in large part because, in contrast to their American counterparts, they learned about naval strategy more from combat experience than from abstract seapower theory. Observes Dingman, leading Japanese theorists were combat veterans of the Sino-Japanese and Russo-Japanese wars. Thus “they turned more to their own empire’s recent history than to the more distant past as Mahan had,” and their “pens were mobilized more to support specific building programs than to elucidate general principles.”⁴⁵ Their proposals were geared to big ships and big guns. Says Spector, “Japanese admirals were too faithful students of Mahan to put their faith for ultimate victory in any weapon except the battleship.”⁴⁶

Tactics and even hardware, then, propelled Japanese naval thought at least as much as did the ideal relationship among strategic theory, naval strategy, and force structure. In effect the IJN inverted this relationship, fitting seapower theory around its immediate needs for ships, budgets, and bureaucratic supremacy.

JAPAN'S POSTWAR MARITIME POSTURE

"One searches the pages of recent histories of the Imperial Japanese Navy in vain for any mention of Alfred Thayer Mahan," declares Roger Dingman.⁴⁷ Just so. Written to commemorate the centennial of the Russo-Japanese War, a recent *Naval War College Review* article by Vice Admiral Yoji Koda, a senior JSMDf officer, is nearly mute on Mahan.⁴⁸ Interviews with retired officers from the Maritime Self-Defense Force likewise imply that Mahan is missing from Japanese strategic thought today. Indeed, the MSDF has seemingly allowed strategic thought to languish entirely, owing primarily to Japan's close alliance with the United States. Asked to describe the sources of Japanese seapower thinking, these officers invariably call for reinforcing the alliance with the United States and its navy.⁴⁹ While joining in a composite maritime force with the U.S. Navy confers undoubted benefits on the MSDF—giving the service the offensive punch it lacks as a matter of policy and law—Japan's dependence on its super-power partner clearly has marked drawbacks.

The demise of the Imperial Japanese Navy in 1945 did not end naval planning for Tokyo, even if it did discredit Alfred Thayer Mahan and other thinkers; it simply starved Japanese naval planning of intellectual sustenance. Former IJN officers soon began rebuilding the nation's maritime forces with full approval and oversight from the American occupation authorities. Indeed, even before the formal surrender ceremonies on board the *Missouri*, the United States ordered Japan to clear heavily mined areas along the Japanese coast.⁵⁰ The ad hoc flotilla of minesweepers formed for this purpose, using remnants of the imperial navy, became the nucleus for postwar Japanese naval power.⁵¹

It quickly became clear that a functioning institution was required to safeguard Japan's basic maritime interests. In 1948, accordingly, the Japanese government established the Maritime Safety Agency, the precursor to the Maritime Self-Defense Force. The Korean War induced U.S. defense planners to seek Japanese military assistance. Unbeknownst to the outside world, Japanese minesweepers were deployed to combat zones off the Korean Peninsula under American operational command, performing a critical support function that the U.S. Seventh Fleet lacked.⁵² Postwar Japan, then, devised a navy only in response to the demands of its occupiers. Strategic thinking about naval operations independent of the United States was absent from the start.

Following the full restoration of Japanese sovereignty in 1952, Tokyo rapidly expanded its maritime responsibilities. Strikingly, the 1952 U.S.-Japan defense treaty signed at San Francisco made the security of the Far East—implicitly including Japan's maritime environs—a key area of responsibility for the alliance. But the broad geographic scope of the alliance had less to do with Japan's intrinsic needs than with America's emerging containment strategy in Asia.⁵³

Four years after the MSDF entered service in 1954, the Japan Defense Agency (JDA) unveiled its first formal defense buildup plan (1958–60), which set forth three central tasks for Japan’s maritime defense. First, submarines were deemed the most pressing threat; accordingly, the MSDF’s primary mission was to conduct antisubmarine warfare (ASW) operations in waters adjacent to the Japanese archipelago.⁵⁴ A second, equally urgent mission was to protect the sea lines of communication (SLOCs). Third, the MSDF needed to defend against a direct invasion from the sea. These three pillars informed subsequent four-year plans and still form the basis for Japan’s maritime defense posture. Renewed attention to SLOC defense may or may not have reflected thinking inherited from Japan’s prewar strategic traditions, but there was little sign that Tokyo thought about seapower in rigorous theoretical terms. Wartime defeat had banished Mahan from the Japanese lexicon, and no one had taken his place.

An intriguing episode during this period illustrates Japan’s early naval ambitions in the Cold War.⁵⁵ In 1960, as a part of the regular revision and update of the first defense plan, the MSDF floated a proposal to acquire a helicopter carrier for ASW operations. The initial plan for a six-thousand-ton vessel was revised upward, calling for an eleven-thousand-ton ship capable of carrying up to eighteen helicopters. Such a project, if executed, would have represented a quantum leap in the tonnage and capability of Japan’s nascent postwar fleet. Notably, the Japanese cited American requests for sea-based helicopter support during the Korean War as precedent for a carrier acquisition. (In 1953 the United States had offered to lease Tokyo a seven-thousand-ton escort carrier to track Soviet submarines, while Tokyo considered converting a transport ship into a carrier.)

Japanese aversion to military matters, amplified by bureaucratic politics, ultimately nullified the MSDF’s bid for a carrier, but its ambitions along these lines endured. It crafted a fleet centered on helicopter-carrying destroyers, in an effort to sidestep political objections to aircraft carriers. The service eventually got its wish three decades later (discussed below). A carrier of that capacity would have substantially bolstered Japan’s ASW capacity, but in these early days the MSDF clearly ignored the political climate, budgetary realities, and, most importantly, the proposed vessel’s place in Japan’s long-term maritime strategy. The MSDF’s tendency to covet the latest in naval technology without reference to a broader naval strategy or Japan’s political needs persists to this day.

Geopolitical events and domestic debates reinforced the MSDF’s central role in securing the nation’s welfare. The 1960 revision of the U.S.-Japan security treaty added a “Far East clause” that more explicitly codified the need to protect Japan’s nautical environment while widening allied cooperation to the Korean Peninsula, Taiwan, and the northern Philippines. To ease strategic pressures on a nation weary from Vietnam, President Richard Nixon promulgated the “Guam

Doctrine,” calling on U.S. allies to shoulder responsibilities in proportion to their needs and capabilities. Against this backdrop, Prime Minister Eisaku Sato declared publicly that Korea and Taiwan were areas of security concern for Japan. Response to a cross-strait contingency would have required the MSDF to project forces far beyond the Japanese home islands.⁵⁶ Again, both the Far East and Taiwan clauses served America’s strategic interests in Asia rhetorically, but they supplied no concrete guidance on how to harness Japan’s naval strategy and capabilities for contingencies beyond defense of the home islands.

As Japan agreed in principle to take on greater responsibilities, this mismatch in policy and strategy stood in ever sharper relief, until it became impossible to overlook. As a consequence, genuine debate about the nation’s maritime priorities emerged. Despite politicians’ declarations that Japan had acquired capabilities adequate to defend its maritime interests by the early 1970s, the force structure continued to exhibit serious deficiencies.⁵⁷ Recognizing this misalignment between political ends and naval means, Osamu Kaihara, a secretary general of the National Defense Council, argued that Japan should dramatically scale back its maritime posture, setting limited objectives that the MSDF could realistically achieve. Japan’s SLOCs could be cut at countless points on the map, he argued; protecting far-flung sea lanes exceeded Japan’s maritime capacity. Kaihara urged Tokyo to restructure the JMSDF to resemble a coast guard geared exclusively to defending the home islands from a direct invasion.

In contrast, Hideo Sekino, a respected commentator on defense affairs, considered a direct Soviet invasion unlikely. Given Japan’s dependence on overseas resources, the nation was most vulnerable to commerce raiding in a conflict. The 1973 Arab oil embargo lent credence to Sekino’s basic premise and to his recommendation that Tokyo procure the wherewithal to defend sea lanes as far away as northern Indonesia. Sekino insisted that such a posture would be fully compatible with American regional strategy in Asia, enabling Japan to influence events within the alliance.⁵⁸ Interestingly, the most persuasive aspect of Sekino’s argument was his claim that Japan could best support U.S. strategic interests in Asia by heeding his recommendations.

Broader geopolitical alignments quickly overtook events. U.S.-Soviet détente and Nixon’s dramatic opening to China in the early 1970s fed Japanese fears that Washington was preparing to abandon the alliance. In response, the Japanese government issued its first comprehensive report on how the force it envisioned—based on a “standard defense force concept”—would meet Tokyo’s national security objectives. Strikingly, it took Japan nearly a quarter of a century to address the most basic responsibility of any nation: matching national policy with a coherent strategy and supporting forces. But little serious thought went

into the report. If Japanese officials ever revisited their basic assumptions, the document betrayed little sign of it.

In keeping with the maritime priorities established more than two decades before, the 1976 National Defense Program Outline (NDPO) provided guidelines for the MSDF to defend against a direct invasion of the home islands; provide warning and defense against threats to Japan's coastal areas; protect major ports and straits; and conduct active air reconnaissance and surveillance of the seas adjacent to Japan's Pacific coast (out to three hundred miles) and in the Sea of Japan (perhaps one to two hundred miles from Japan's west coast).⁵⁹ The NDPO's directives envisioned a fleet centering on modern destroyers, submarines, and fixed- and rotary-wing ASW aircraft. Two years later, Tokyo and Washington signed Guidelines for Defense Cooperation that formally committed Japan to maintaining "peace and stability" across the Asia-Pacific region. The expansiveness of the outline and the guidelines sealed the ascendance of Sekino's vision, emphasizing the complementary role Japan could play in American security strategy.

By the 1980s, the revival of Cold War competition and a convergence of Japanese and U.S. strategic interests had given rise to unprecedented naval cooperation. In 1981, Prime Minister Zenko Suzuki sketched a Japanese defense perimeter extending a thousand miles from Japanese shores.⁶⁰ Two years later a U.S.-Japanese study group examined the potential for combined operations to defend SLOCs against the Soviets. For the rest of the decade, American and Japanese naval forces perfected the art of combined ASW, working to bottle up Soviet submarine forces in the Seas of Okhotsk and Japan. During this period the MSDF matured into a genuine partner of the U.S. Navy in the Pacific theater. By the end of the Cold War, the JMSDF was second only to the United States in Asian waters.

Whatever its benefits, closer allied collaboration held serious risks for Japan. According to one study, "The SDF's emphasis on the procurement of interceptor aircraft and antisubmarine warfare ships designed to complement and defend U.S. offensive military assets operating from Japan meant that the structure of its defense force became highly skewed, to the point that it lacked the balanced range of capabilities necessary to defend Japan independent of the United States."⁶¹ Any prudent theorist of naval affairs would have frowned upon this apparent shortsightedness—especially in a nation whose destiny lay on the seas.

Several patterns emerge from this brief survey of MSDF history. First, the Japanese took to heart the bitter lessons of World War II, when the IJN's failure to defend commercial shipping against U.S. submarines led to disaster for the war-time Japanese economy. Tokyo's near-obsessive focus on sea-lane defense during the Cold War stemmed in part from its desire to avoid a replay of these events. Second, major historical events, namely the Korean War and the broader Cold

War, seemed to underscore the importance of defending the sea lanes. From the start, Japanese planners focused on antisubmarine and antimine warfare, and subsequent strategy making deviated little from these central missions. Third, Tokyo's rigid adherence to the ill-defined mission of SLOC defense left the MSDF's capabilities lagging far behind its ambitious maritime vision. The ensuing policy-strategy mismatch would not be repaired until the 1980s.

Fourth, preparations for SLOC defense served the allies' needs asymmetrically. The MSDF's primary tasks filled serious gaps in American ASW and mine-warfare capability while dovetailing fully with the U.S. strategy of containing Soviet naval power. Tokyo was able to exercise greater influence within the alliance, as the founders of postwar Japan had hoped, but their grand bargain entailed serious risks that persist today. Japanese naval strategy was always subordinate to the U.S. regional posture in Asia. It is no exaggeration to observe that the MSDF lacked an independent identity, becoming a mere appendage of the U.S. military. The American imprint on the Japanese navy is unmistakable. Indeed, Japanese naval officers revere Admiral Arleigh Burke, not one of their own, as "the father of the JMSDF."⁶² But Japan's heavy reliance on American concepts, doctrine, and equipment amounted to intellectual buck-passing.

Finally, postwar Japan is a case study in the pitfalls of strategy making without a larger theoretical framework. Policy documents set forth hazily defined notions of regional peace and stability, while service-level directives focus overwhelmingly on operations (sea-lane defense), tactics, and equipment. The tissue that binds strategy to national policy is tenuous, if indeed it exists. Imperial Japan's derivative of Mahanian strategic theory clearly did not outlive World War II. Nor do Japanese planners refer explicitly to Sir Julian Corbett's theories, which were predicated almost exclusively on controlling sea communications, even though the menace of *guerre de course* transfixed Japanese naval officials.⁶³

THE POST-COLD WAR ERA AND BEYOND: THE MSDF DIVERSIFIES

The security environment grew more and more complex in the post-Cold War epoch, even as domestic and international constituencies prodded Japan to step up its efforts to maintain peace and stability, commensurate with its economic power. The MSDF saw its roles and missions grow accordingly, performing tasks well beyond homeland and sea-lane defense.⁶⁴ Whether this diversification will impel the MSDF to transform itself into a service with all the trappings of a traditional navy remains to be seen.

Japan got off to a rough start as the superpower rivalry neared its end. During the 1990–91 Gulf War, Tokyo's failure to provide meaningful military assistance provoked accusations, both domestically and abroad, that Tokyo had indulged in free-riding and "checkbook diplomacy." Notably, however, the MSDF ended

up playing a critical, path-breaking role, partly reversing the harsh international verdict. The minesweeping force Japan deployed to the Persian Gulf after hostilities had ceased boasted state-of-the-art equipment, and the MSDF discharged its mission. Harking back to the Korean War, Japanese forces again performed functions that outstripped U.S. Navy capabilities in-theater.

Determined not to suffer another public-relations disaster, the Japanese Diet passed the International Peace Cooperation Law in 1992, easing restrictions on overseas deployments of Japanese units. The legislation marked the beginning of unprecedented international activism. Starting in 1992, the MSDF took part in numerous relief and peacekeeping operations. Its first such effort involved transporting personnel and equipment to Cambodia for a United Nations–mandated peacekeeping mission. The carrier-like *Osumi*-class transport vessels (LST, or landing ship tank) debuted during the 1999 East Timor crisis, arousing suspicions in some quarters that Japan was taking its first step to enhance power projection. Tokyo's embrace of international operations was only the beginning of the MSDF's expansion in the nautical arena.

Throughout the 1990s, Japan sought to organize regional initiatives to combat piracy in Southeast Asia. As early as 1997, the National Institute for Defense Studies, the JDA's in-house think tank, proposed an ambitious security enterprise dubbed "Ocean Peace Keeping" (OPK). The OPK concept envisioned a standing maritime security force composed of naval contingents from nearby states. Prime Minister Keizo Obuchi formally proposed a regional coast guard at the 1999 ASEAN+3 Summit. While Obuchi's proposal failed to catch on due to its perceived radical nature, successive prime ministers lobbied for the OPK initiative in regional forums.⁶⁵ When OPK faltered, the Japanese government pressed for bilateral cooperation, including combined exercises and aid. Tokyo achieved considerable success with this more modest approach, forging agreements with littoral states such as Brunei, India, Indonesia, Malaysia, Singapore, and Thailand.⁶⁶

The 11 September terrorist attacks created new incentives for Japan to expand its maritime missions. Prime Minister Junichiro Koizumi pushed legislation through the Diet permitting the Self-Defense Forces to provide rear-area military support to allied forces operating in the Indian Ocean. The MSDF dispatched combat logistics ships, transports, and escorts on a rotating basis. Notably, the MSDF's responsibilities and capabilities gradually grew. Its refueling mission, initially limited to U.S. and British vessels, came to include eight other coalition partners, with Japan meeting some 30 percent of allied fuel demand.⁶⁷ As of September 2005, Japanese oilers had dispensed some 410 million liters of fuel, worth \$140 million, free of charge.⁶⁸ In December 2002, after some

prodding from the United States, Japan reluctantly agreed to deploy a frontline Aegis destroyer to the Indian Ocean.⁶⁹

Japan assumed an assertive stance before and after the 2003 Iraq war. While many Japanese politicians and most citizens questioned the legitimacy of the invasion, Koizumi stood firmly behind the George W. Bush administration's claim that Iraq was a central front in the global war on terror. After the Diet enacted the necessary legislation, Tokyo dispatched six hundred ground troops to Samawah, a city considered secure, in a noncombat role. The MSDF employed its *Osumi*-class ships to support this mission.

Also in 2003, as part of its broad-based support for the U.S.-led war on terror, Tokyo acceded to the Proliferation Security Initiative (PSI), in an effort to halt the proliferation of weapons technology at sea, aloft, and ashore.⁷⁰ A "core" participant in the PSI, Japan has taken part in a series of highly visible exercises held across the globe. Because Japanese law forbade the MSDF to board ships in peacetime, MSDF observers watched the Japanese Coast Guard during the first round of multinational exercises. To correct this awkward arrangement, one of the "war contingency bills" approved by the Diet in May 2004 loosened restrictions on the MSDF. In October 2004 Japan hosted its first PSI exercise, TEAM SAMURAI, but the MSDF was still limited to patrol and intelligence operations. It dispatched a destroyer, two P-3C surveillance aircraft, and two helicopters to the first PSI drill in Southeast Asia, which Singapore hosted in August 2005.

Humanitarian imperatives also raised the profile of the MSDF. In January 2005, Japan undertook its largest postwar military deployment, sending MSDF units to Indonesia in response to the devastating December 2004 tsunami. Numbering approximately one thousand personnel, the relief task force included three ships, five helicopters, and two C-130 transport aircraft. The MSDF dispatched an *Osumi*-class transport ship, along with a refueling vessel and an escort destroyer, to support helicopter operations off the coast of Aceh.⁷¹ Tokyo called on a naval flotilla returning from patrols in the Indian Ocean to furnish additional assistance.⁷² The mission, in which Japanese forces worked from an integrated command post in Thailand, represented the first time the three Self-Defense Force (SDF) services had operated jointly.

Tokyo's most recent reassessment of its defense policy and military modernization programs conforms to its activism over the past five years. The National Defense Program Guidelines issued in December 2004 reaffirmed Japan's variegated security posture, instructing the SDF to prepare for "new threats and diverse situations" and for any international operations that might arise.⁷³ The NDPG mandates the capacity to defend against ballistic-missile attacks, respond to incursions by enemy special-operations forces, defeat an invasion of Japan's offshore islands, patrol and prevent intrusion into Japan's surrounding seas and

airspace, and manage the effects of weapons-of-mass-destruction attacks. The JMSDF has an ambitious slate of missions.

Accordingly, the latest Mid-Term Defense Program, which sets out force-structure priorities to meet the NDPG's directives, forecasts sizable procurements of destroyers, submarines, and fixed- and rotary-wing patrol aircraft during fiscal years 2005–2009. Three of Japan's four Aegis destroyers will undergo upgrades to bolster their anti-ballistic-missile capabilities, while two new Aegis ships will join the fleet over the next decade. These increases will be balanced against efforts to streamline and consolidate the overall fleet, while growth rates in the annual defense budget will be trimmed. The potential disjunction between acquisition plans and resources has raised concerns about feasibility and sustainability.⁷⁴

The planned construction of a next-generation, 13,500-ton, helicopter-carrying destroyer signifies a potentially new direction for the MSDF, in which the service realizes one of its decades-old aspirations. The "16DDH"-class ship has attracted significant media and Diet attention, owing to its resemblance to an aircraft carrier.⁷⁵ The vessel's design features a starboard-side island superstructure and an uninterrupted flight deck, prompting observers to speculate that Japan may be eyeing a carrier capable of handling Harrier-like aircraft. Notes one analyst, "The configuration of the *Osumi* and the new DDH class indicates that Japan is rehearsing carrier-building technology to reserve for itself this potential military option; and thus, that it is considering discarding the constitutional prohibition on the acquisition of power-projection capabilities."⁷⁶

In the meantime, the 16DDH would fulfill many of the peacetime and wartime missions elaborated in the NDPG.⁷⁷ As a wartime flagship, the 16DDH would serve as a command-and-control platform, coordinating the activities of other units while its organic helicopters conducted ASW operations. During peacetime operations, or "military operations other than war" (MOOTW), the 16DDH would join the *Osumi*-class ships for peacekeeping and relief operations, as well as the "diverse situations" Japan foresees confronting on the high seas.

This array of maritime activities clearly reflects greater confidence on the part of Japan's political elite that the MSDF can cope effectively with demanding missions. The new defense plans also suggest that Japanese power-projection capacity will continue to grow. This convergence of intent and capability could very well yield a traditional maritime power along the East Asian littoral.

Such a shift would surely have implications for the regional configuration of power in Northeast Asia and for global security, but several important caveats are in order. First, Japan's activism on the high seas today represents the culmination of gradual, modest steps taken over fifteen years. This long gestation period permitted decision makers to ease the prohibitions against overseas

deployment without unduly alarming government officials or the Japanese electorate. Second, Tokyo's decisions to employ maritime forces were driven primarily by crisis and, often, by American pressure to act. The Gulf War fiasco epitomized the highly reactive nature of Japanese decision making. Third, Japan's ability to respond to crisis beyond the home islands was largely a by-product of enhancements to its alliance with the United States. For instance, Japan's impressive involvement in the war on terror would have been impossible absent the allied renewal process that began in the mid-1990s. Fourth, at a broader level, the MSDF largely remains an appendage of American maritime strategy, bereft of an independent, coherent naval strategy. This situation is acceptable in most contingencies, when Tokyo can count on support from Washington, but it will prove problematic if and when Japan needs to act alone.

Finally, Japan's expansion of the MSDF's roles and missions does entail strategic risks. The looming consolidation and streamlining of frontline forces suggest that Japanese political and military leaders believe the MSDF can do more with less, or at any rate more with the same forces. Such a posture makes eminent sense if future crises take the form of MOOTW, but this planning parameter assumes away the potential for higher-intensity confrontations, including traditional force-on-force engagements on the open seas. This trend is further evidence of Japan's break with Mahanian thought since World War II—and it is occurring at a moment in history when another resurgent military power's seafaring ambitions could usher in a new age of Mahan.

CHINA'S RISE: COLLISION COURSE AHEAD?

Sino-Japanese relations have seen better days. Some of the problems that have ratcheted the two countries' mutual ambivalence to new highs are perennial features of the relationship, while others are new and possibly more difficult to manage. Among the latter, early signs of maritime competition have appeared in the past two years. Four nautical issues have dogged bilateral ties: China's rapid naval modernization, ongoing cross-strait tensions, boundary and resource disputes in the East China Sea, and incidents at sea. All four problems have followed patterns that spell trouble for future Sino-Japanese maritime interactions.

In November 2004, for instance, a Chinese nuclear-powered attack submarine intruded into Japanese territorial waters, prompting the JMSDF to track the vessel and Koizumi's government to issue a rare public demand for an apology. A newly revised National Defense Program Outline appeared that same month, declaring that China's naval operations required greater vigilance on the MSDF's part. In February 2005, Tokyo unexpectedly announced that the Japanese Coast Guard would formally take charge of a lighthouse erected by nationalists in the disputed Senkaku/Diaoyutai Islands, sparking public protests in China. Beijing has also

placed on the table objections to Tokyo's claims to exclusive economic zones surrounding Japanese-owned atolls in the Pacific.⁷⁸ Similarly, a joint U.S.-Japanese declaration that the two countries shared "common strategic objectives" in the Taiwan Strait elicited angry recriminations from Beijing.

Ongoing territorial disputes in the East China Sea resurfaced in the summer and fall of 2005, after the Japanese government announced that it would grant certain companies the right to drill for gas deposits in and near contested areas. When China lodged a protest, Japan accused Beijing of starting extraction operations. In an unprecedented show of force, China dispatched a naval flotilla led by *Sovremennyy*-class guided-missile destroyers to the vicinity of the gas field, even as negotiators on both sides sought to defuse the situation. A Chinese ship reportedly trained its guns on a Japanese P-3C patrol aircraft.⁷⁹ In August the JDA specifically declared, in its annual defense white paper, that China's growing naval power in Asia was a matter of concern.⁸⁰ Following the release of the white paper, the head of the JDA, Yoshinori Ohno, averred that Chinese maritime activities required attention and called on Beijing to divulge more information about its military expenditures. The Japanese media subsequently leaked a highly classified scenario-planning document outlining a robust military strategy for repelling any Chinese invasion of the Senkaku Islands.

Given this escalating set of events, it has become increasingly urgent to discern how Japanese and Chinese seapower might interact in the future. One useful method for assessing this Sino-Japanese dynamic is to analyze Chinese strategic thinking about naval power and compare it against Japan's approach. Such a comparative analysis will hint at strengths and weaknesses in the MSDF's defense posture, suggesting whether and how Tokyo ought to realign its priorities.

The disparity between Chinese and Japanese strategic thought about maritime affairs could scarcely be sharper. In recent years a vocal school of thought in Beijing has noticed that Alfred Thayer Mahan's works furnish both the logic and the vocabulary with which to argue for assertive seapower.⁸¹ Proponents of this school of thought write and speak in avowedly Mahanian terms, and in many cases they explicitly cite his works to justify an ambitious maritime strategy. In particular, his portrayal of seapower as "overbearing power" pervades these Chinese thinkers' discourse on maritime affairs. Should the Mahanians win out among the cacophony of voices clamoring for the attention of senior policy makers in Beijing, Chinese strategy will take on distinctly offensive overtones.⁸² Japanese strategists and their American partners must remain mindful of this prospect.

Perhaps the most thoughtful—though by no means the only—spokesman for China's Mahanian school is Professor Ni Lexiong of the Research Institute of War and Culture, Eastern China Science and Engineering University. Professor

Ni uses seapower theory to evaluate the competing claims of advocates of seapower and advocates of globalization. The latter, he contends, believe

[that] China should not act by following the traditional sea power theory in pursuing a strong Navy, because today's world situation is different from the time of Mahan . . . that the globalization of the world's economy has made various countries' interests interconnected, mutually dependent on each other to a greater degree, and that if a country wants to preserve its life line at sea, the only way to do so is to go through "cooperation" rather than the traditional "solo fight."⁸³

Globalization theorists, notes Ni, typically urge Beijing to refrain from a naval arms buildup. To do so would alert "today's naval hegemon," the United States, "making China's naval development a self-destructive play with fire," reminiscent of imperial Germany's quixotic bid for seapower at the turn of the nineteenth century.⁸⁴

Ni hedges by allowing for the possibility that the world is entering a Kantian era of perpetual peace, as many globalization enthusiasts maintain, but he postulates that even a pacific international system will ultimately depend on force. In either case, then, China should build up its naval forces. If the globalization theorists have it right, China will need a muscular navy to play its part in the "world navy," when one emerges, and to help along the transition to a peaceful international order. Ni clearly believes, however, that the world has not yet evolved beyond its Hobbesian state, in which nations must maintain powerful military forces as a means of self-help. Thus "it is China's necessary choice to build up a strong sea power" to guard against "the threats to our 'outward-leaning economy' by some strong nations"—again, code for the United States—in the lingering "Hobbesian era" he perceives.⁸⁵

Professor Ni reminds his readers of China's humiliation at Japanese hands in 1894–95, when a powerful Japanese battle fleet crushed that of the Qing dynasty. "The key to winning that war was to gain the command of the sea," he proclaims. Today's China should emulate imperial Japan's example, keeping in mind that Mahan "believed that whoever could control the sea would win the war and change history; that command of the sea is achieved through decisive naval battles on the seas; that the outcome of decisive naval battles is determined by the strength of fire power on each side of the engagement."⁸⁶ This is scarcely the language of someone predisposed to "protracted defensive resistance," the term used by some Western analysts to describe China's naval strategy.⁸⁷ If indeed this sort of thinking comes to dominate policy discourse in Beijing, Washington and its Asian partners will be compelled to come to terms with a newly assertive naval strategy on Beijing's part. It behooves Tokyo to relearn its Mahan and to revisit the Imperial Japanese Navy's

history, if for no other reason than to get a glimpse into what a prospective competitor may do in maritime East Asia.

What kinds of problems might these trends in Chinese maritime strategy pose for Japan? Observers in certain quarters of Japan's strategic community have begun to grasp the potential Mahanian challenge that Chinese seapower could present. Studies assessing Chinese maritime intentions and the Sino-Japanese military balance on the high seas have become more and more common.⁸⁸ The Japanese worry that China may be eyeing Japan's offshore islands as it extends its naval power eastward. One author cites the creeping expansion of China's naval presence in the South China Sea as a worrisome precedent.⁸⁹ Indeed, some analysts and authorities in China have hinted subtly at challenging Japan's legal interpretation of its administrative and sovereign prerogatives in the East China Sea, including those pertaining to Okinawa. A Japanese commentator alleges that Beijing harbors hegemonic ambitions to reestablish control over all territories governed by the Qing dynasty.⁹⁰

Hideaki Kaneda, a retired JMSDF vice admiral, explicitly links China's emerging maritime strategy to Mahan. Kaneda argues that China meets Mahan's six tests of seapower, three of which are favorable geography, a large population, and the national will to compete on the high seas. He observes that the Chinese are constructing strategic relationships and military bases along the sea lanes stretching from the South China Sea to the Persian Gulf, sea lanes that convey the energy resources and other commodities that sustain China's economic well-being. Under Mahanian logic, this emerging diplomatic and defense infrastructure (also known as a "string of pearls") would permit larger-scale military deployments in the future to protect Chinese commerce.⁹¹ He concludes, "All of Asia must wake up to the arrival of Chinese-style aggressive 'sea power.' Japan, in particular, must reformulate its national maritime strategy with this in mind."⁹²

A highly influential journalist, Yoichi Funabashi, implicitly endorses Mahan's view that national will is a key determinant of seapower. Despite the nautical character of Japan's geography, Funabashi bemoans the Japanese people's indifference to maritime matters, imploring Japan "to once again devise a maritime strategy aimed at opening up the four seas that surround it and taking advantage of the blessings of the oceans." As for China, he observes, "China is a major continental power on the rise. By contrast, Japan is expected to show its 'difference' and 'strengths' as a major maritime power more than ever. It should maintain 'free navigation' to build peace and stability in Asia seas and incorporate China in the framework."⁹³ Despite his somewhat conciliatory tone, Funabashi insists that Japan must nurture a national character that embraces maritime power if it hopes to compete with China on the world stage.

Jun Kitamura, a Japanese consultant to the U.S. Pacific Command, advocates a far more bellicose stance vis-à-vis China. He too complains that “Japan lacks a sense of caution in regard to China’s rapid military expansion.” Pointing to China’s maturing submarine force, he criticizes the Japanese government for failing to “fathom the geopolitical significance of the fighting power of submarines in today’s international community.” To remedy the apparent shortfall in national maritime consciousness, Kitamura urges the Japanese people to “establish clear national strategies for Japan on their own, and rebuild their military power as effective means to guarantee the strategies as soon as possible.” Specifically, he recommends shifting Japan’s line of defense seaward, arguing that repulsing a direct invasion would be too late and too costly. To support a forward defense, he says, the JMSDF needs to double in size, acquire a panoply of offensive weaponry, build massive naval bases, and develop its own intelligence infrastructure. Most controversially, he presses for an alliance with Taiwan that keeps the island from falling into Chinese hands, thereby safeguarding Japanese sea lanes adjoining the island.⁹⁴

Whatever the merits of and differences among these analyses, they all concur on one important priority: a fundamental reassessment of Japan’s maritime strategy that helps the JMSDF maintain its edge as China’s naval power grows. The apparent shift in tone and urgency among these well-respected observers suggests that a spirited debate about Japan’s maritime posture, harking back to the Sekino-Kaihara debate, may be in the making. Whether or not Japan’s national policy and maritime strategy will veer in the direction these commentators espouse remains to be seen.

In policy terms, the Japanese government has responded concretely to the potential Chinese challenge. Reflecting worries about Beijing’s intentions toward the offshore islands, the latest defense white paper sets the capacity to stage an effective response to island invasion as a major priority. Significantly, the report states, “If there is an indication noticed in advance, an operation shall be conducted to prevent invasion by the enemy’s unit. If there is no indication in advance and the islands in question were occupied, an operation shall be conducted to defeat the enemy.”⁹⁵ For the first time, the Ground SDF forces recently joined the U.S. Marine Corps in joint and combined exercises to defend offshore islands.⁹⁶ The Maritime Self-Defense Force would play a central role in carrying ground troops in such a defensive operation. The JMSDF has also engaged in antisubmarine drills with the U.S. Navy near Okinawan waters.⁹⁷

A recent study considers how the SDF’s capabilities would measure up against China’s military in combat over Japan’s offshore islands. The study postulates that if the Chinese side were able to surprise Japan and rapidly occupy the Sakishima Islands, the SDF would find it difficult if not impossible to dislodge enemy forces

on its own. Given the short distances involved, land-based Chinese fighter aircraft could easily provide protective cover against Japanese forces, while Japanese aircraft would have much shorter loiter times in the area. The author of the study concludes that a light aircraft carrier capable of handling vertical/short-takeoff-and-landing aircraft would be required to counter such an invasion.⁹⁸ Regardless of whether this analysis carries any policy weight, the bluntness with which it discusses a Sino-Japanese confrontation hints at changes in the public mood in Japan with regard to a Chinese maritime challenge.

THEORETICAL AND POLICY IMPLICATIONS FOR THE JMSDF

From the foregoing analysis of Japanese strategic thought, it is possible to venture a few observations and findings.

Applying Strategic Theory Is Tough. Dogmatic adherence to seapower theory can be harmful if not fatal to maritime nations. So can an indifference to fundamental principles of seapower that unmoors strategy and force planning from any larger sense of national policy and grand strategy. Over the past century, Japan has exhibited extreme tendencies in both directions. In the case of prewar Japan, a variant of Mahanian dogma seeped into the Japanese consciousness about naval power, prodding the IJN leadership into fateful decisions about force structure and operational doctrine. Today, Japan's niche—and therefore highly unbalanced—capabilities and strategy derive from unquestioned assumptions about American security commitments. This could serve Japanese maritime interests ill over the long run.

China's Rise Could Portend Trouble. An area that requires further research is how two differing national approaches to seapower might intersect in practice. Substantial evidence indicates that Beijing is succumbing to Mahan's beguiling logic. If this is so, how will a post-Mahanian JMSDF, unaccustomed to strategic thought in any of its guises, interact with a Chinese navy that is fascinated with Mahan? This question has gained substantial policy urgency over the past few years, as naval rivalry between the two powers has taken hold. Is Japan endangering itself by directing the JMSDF to keep performing its full array of Cold War-era missions while piling on new international operations, all without boosting defense spending? How might future acquisitions affect Japan's maritime security? Specifically, would ASW and minesweeping prove adequate in a tilt with the People's Liberation Army Navy?

America Needs a More Coherent Naval Strategy. Assuming the United States wishes to maintain its naval preeminence in Asia indefinitely, it must carefully reexamine its maritime strategy in the region. Tokyo should urge Washington to do so, and it should take an active hand in formulating combined strategy. Key

U.S. policy documents such as “Seapower 21” and the latest Quadrennial Defense Review represent sorry excuses for strategy, framed in terms too general and abstract to provide meaningful guidance. Many Japanese strategic thinkers, accordingly, have begun reassessing the benefits and costs of a far more independent posture in the maritime realm. How would such an outcome benefit or harm the United States? If American policy makers have thought about this prospect, they give no sign of it. Washington’s assumption that Tokyo will automatically follow its lead—or, for that matter, Tokyo’s assumption that Washington will furnish military support even in situations that do not engage U.S. interests—could engender mutually unrealistic assumptions about the two partners’ wills and capabilities, especially in times of crisis or war. Suppose the United States decided that a Chinese invasion of Japan’s offshore islands fell outside of the purview of the defense treaty. What then for the JMSDF?

Japan Needs a Theorist. It behooves the policy community in Tokyo to start thinking ahead now about how Japan should handle contingencies that threaten to strain the security alliance or leave the United States standing on the sidelines. If Alfred Thayer Mahan is no longer a useful guide to Japanese maritime strategy, who is? Julian Corbett’s writings offer a good starting point for this sorely needed debate and for a broader renaissance of strategic thought in Japan. Corbett fits better with contemporary Japanese political and strategic culture than does Mahan. He favored big ideas, not technical details or specific weapons systems; he was not a blue-water theorist to the same degree as Mahan; his vision was not universalist like that of Mahan but admitted of regional strategies such as Japan’s; and he was not fixated on absolute victory at sea. Rather, Corbett held out the possibility of limited naval operations aimed at limited political and strategic objectives—a trait that could endear him to a Japanese populace and government still averse to the use of force. And, like today’s MSDF leadership, he depicted controlling maritime communications as the foremost challenge facing practitioners of naval operations.⁹⁹

In short, Corbett’s works offer a promising platform for strategic discussions. Japan needs to resurrect its tradition of strategic thinking about the sea. Let the debate begin.

NOTES

The authors are indebted to Admiral Hideaki Kaneda and Admiral Sumihiko Kawamura of the Okazaki Institute and to Dr. James Auer of Vanderbilt University for their invaluable assistance.

1. For more on Boyd’s thought, consult *Defense and the National Interest*, www.d-n-i.net.

2. See for instance Julian S. Corbett’s analysis of geographic factors in the 1904–1905

- Russo-Japanese War. Julian S. Corbett, *Maritime Operations in the Russo-Japanese War, 1904–1905*, ed. John B. Hattendorf and Donald M. Schurman (Annapolis, Md., and Newport, R.I.: Naval Institute Press and Naval War College Press, 1994), esp. pp. 1–10.
3. For a detailed contrast between Japan and Britain on geography and history, see Peter J. Woolley, *Geography and Japan's Strategic Choices: From Seclusion to Internationalization* (Dulles, Va.: Potomac Books, 2005), pp. 1–6.
4. Peter J. Woolley, *Japan's Navy: Politics and Paradox 1971–2000* (Boulder, Colo.: Lynne Rienner, 2000), p. 8.
5. See Toshi Yoshihara and James R. Holmes, “China, a Unified Korea, and Geopolitics,” *Issues & Studies* 41, no. 2, pp. 119–70; Robyn Lim, *The Geopolitics of East Asia: The Search for Equilibrium* (London: RoutledgeCurzon, 2003).
6. Duk-ki Kim, *Naval Strategy in Northeast Asia: Geo-strategic Goals, Policies and Prospects* (London: Frank Cass, 2003), pp. 168–69.
7. See Kaijo Jieitai 50-nenshi Hensan Iinkai [MSDF 50th Anniversary Editorial Board], *Kaijo Jieitai 50-nenshi* (Tokyo: Boeicho Kaijo Bakuryo Kanbu, 2003), p. 126.
8. Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (Boston: Little, Brown, 1890; repr. New York: Dover, 1987), p. 71. For more on Mahan, see Philip A. Crowl, “Alfred Thayer Mahan: The Naval Historian,” in *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, ed. Peter Paret, Gordon A. Craig, and Felix Gilbert (Princeton, N.J.: Princeton Univ. Press, 1986), pp. 444–77; Russell F. Weigley, *The American Way of War* (New York: Macmillan, 1973), pp. 167–91; Jon Tetsuro Sumida, *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered* (Washington, D.C.: Woodrow Wilson Center, 1997), pp. 80–98; Rolf Hobson, *Imperialism at Sea: Naval Strategic Thought, the Ideology of Sea Power and the Tirpitz Plan, 1875–1914* (Boston: Brill Academic, 2002). On Mahan's influence outside the United States, see John B. Hattendorf, ed., *The Influence of History on Mahan* (Newport, R.I.: Naval War College Press, 1991).
9. Margaret Tuttle Sprout, “Mahan: Evangelist of Sea Power,” in *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler*, ed. Edward Meade Earle (Princeton, N.J.: Princeton Univ. Press, 1943), pp. 415–45; and see James R. Holmes, “Mahan, a ‘Place in the Sun,’ and Germany's Quest for Sea Power,” *Comparative Strategy* 23, no. 1, pp. 27–62.
10. See James R. Holmes and Toshi Yoshihara, “The Influence of Mahan upon China's Maritime Strategy,” *Comparative Strategy* 24, no. 1, pp. 53–71, and “Command of the Sea with Chinese Characteristics,” *Orbis* 49, no. 4, pp. 677–94.
11. Alfred Thayer Mahan, *The Problem of Asia* (New York: Harper's New Monthly Magazine, 1900; repr. Port Washington: Kennikat, 1970), p. 15.
12. Notes one analyst of Mahanian theory, “Central to the theory of sea power was the expectation of conflict. When a nation's prosperity depends on shipborne commerce, and the amount of trade available is limited, then competition follows, and that leads to a naval contest to protect the trade.” George W. Baer, *One Hundred Years of Sea Power: The U.S. Navy, 1890–1990* (Stanford, Calif.: Stanford Univ. Press, 1994), p. 12. See also Pekka Korhonen, “The Pacific Age in World History,” *Journal of World History* 7, no. 1, pp. 41–70.
13. Mahan, *Problem of Asia*, p. 33.
14. *Ibid.*, p. 124.
15. *Ibid.*, pp. 26, 124.
16. Mahan, *Influence of Sea Power*, p. 138.
17. Alfred Thayer Mahan, *The Interest of America in Sea Power, Present and Future* (Boston: Little, Brown, 1897; repr. Freeport, N.Y.: Books for Libraries, 1970), p. 198.
18. Mahan, *Interest of America*, p. 198, and *Lessons of the War with Spain*, in Sprout, “Evangelist,” p. 433.
19. John Keegan, *The Price of Admiralty: The Evolution of Naval Warfare* (New York: Viking, 1989), pp. 101–102, 109, 170.
20. Alfred Thayer Mahan, *From Sail to Steam: Recollections of Naval Life* (New York: Harper & Brothers, 1907; repr. New York: Da Capo, 1968), p. 3.

21. Shinohara Hiroshi, *Kaigun sōsetsu shi* [History of the Navy's Establishment] (Riburo-pōto, 1986), pp. 409–13; David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887–1941* (Annapolis, Md.: Naval Institute Press, 1997), pp. 67–71.
22. “The Chino-Japanese War,” *Pall Mall Gazette* (London), 18 August 1894, p. 7.
23. Ronald H. Spector, *Eagle against the Sun: The American War with Japan* (New York: Free Press, 1985), p. 293.
24. Woolley, *Geography and Japan's Strategic Choices*, pp. 11, 17.
25. Richard W. Turk, *The Ambiguous Relationship: Theodore Roosevelt and Alfred Thayer Mahan* (Westport, Conn.: Greenwood, 1987), p. 4.
26. S. C. M. Paine, *The Sino-Japanese War of 1894–1895: Perceptions, Power, and Primacy* (Cambridge, U.K.: Cambridge Univ. Press, 2003), p. 150.
27. Spector, *Eagle and the Sun*, p. 43; Evans and Peattie, *Kaigun*, pp. 2, 133–51. See also Sun Tzu, *The Art of War*, in *The Seven Military Classics of Ancient China*, trans. Ralph D. Sawyer (Boulder, Colo.: Westview, 1993), pp. 145–86. Akiyama, who served as an observer on board Admiral Sampson's flagship during the Spanish-American War and later talked with Mahan, introduced many of the staff planning and war-gaming techniques he saw in Newport when he returned to the Naval Staff College.
28. Sprout, “Mahan: Evangelist of Sea Power,” p. 415. Mahan's contemporary theorist Sir Julian Corbett was biting. On one occasion he derided Mahan's work as “shallow and wholly unhistorical.” Eric J. Grove, “Introduction,” in Julian S. Corbett, *Some Principles of Maritime Strategy* (London: Longmans, Green, 1911; repr. Annapolis, Md.: Naval Institute Press, 1988).
29. Roger Dingman, “Japan and Mahan,” in *The Influence of History on Mahan*, ed. Hattendorf, p. 50.
30. Dingman, “Japan and Mahan,” p. 56.
31. J. Charles Schencking, *Making Waves: Politics, Propaganda, and the Emergence of the Imperial Japanese Navy, 1868–1922* (Stanford, Calif.: Stanford Univ. Press, 2005), pp. 2–6.
32. Evans and Peattie, *Kaigun*, p. 134.
33. *Ibid.*, pp. 134–35.
34. “Without a doubt,” declares S. C. M. Paine, “Japan had absorbed Captain Mahan's lesson concerning the necessity of the command of the sea” by the early 1900s. Paine, *Sino-Japanese War*, p. 327.
35. Evans and Peattie, *Kaigun*, pp. 139–40.
36. Mahan, *Influence of Sea Power*, p. 71.
37. Evans and Peattie, *Kaigun*, pp. 140–41. See also Satō Tetsutarō, *Teikoku kokubō shi ron* [On the History of Imperial Defense] (Tokyo: Insatsu, 1908; repr. Hara Shobō, 1979); *Kaibo shi ron* [On Naval Defense] (Kaigun Dai-gakkō, 1907); *Kokubō no sakugi* [A Proposal for National Defense] (N.p.: 1913).
38. Evans and Peattie, *Kaigun*, p. 64. See also Darrell H. Zemitis, “Japanese Naval Transformation and the Battle of Tsushima,” *Military Review* 84, no. 6, pp. 73–75.
39. Alfred Thayer Mahan, “Discussion of the Elements of Sea Power,” in *Mahan on Naval Strategy*, ed. John B. Hattendorf (Annapolis, Md.: Naval Institute Press, 1991), p. 31.
40. Paine, *Sino-Japanese War*, pp. 150–53.
41. Tsunoda Jun, “The Navy's Role in the Southern Strategy,” trans. Robert A. Scalapino, in *The Fateful Choice: Japan's Advance into Southeast Asia, 1939–1941*, ed. James William Morley (New York: Columbia Univ. Press, 1980), pp. 241–95; Evans and Peattie, *Kaigun*, pp. 514–16.
42. Observes Samuel Eliot Morison, the United States spent “a much too big slice of the thin appropriation pie” on battleships in the inter-war era, “due, fundamentally, to Captain Alfred Thayer Mahan's teachings to the effect that all other classes of warships would be so out-ranged and outgunned by them in fleet actions as to be useless.” Samuel Eliot Morison, *The Two-Ocean War: A Short History of the United States Navy in the Second World War* (Boston: Little, Brown, 1963), p. 11; Spector, *Eagle against the Sun*, pp. 19, 33, 47, 58.
43. Turk, *The Ambiguous Relationship*, pp. 1–6, 101–107. Henry Adams described TR as “pure act.” Henry Adams, *The Education of*

- Henry Adams, intro. James Truslow Adams (New York: Modern Library, 1931), p. 417.
44. Evans and Peattie, *Kaigun*, pp. 136–37.
 45. Dingman, “Japan and Mahan,” p. 61.
 46. Spector, *Eagle against the Sun*, p. 47. See also David C. Evans, ed., *The Japanese Navy in World War II: An Anthology of Articles by Former Officers of the Imperial Japanese Navy*, 2nd ed. (Annapolis, Md.: Naval Institute Press, 1986), pp. 505, 507.
 47. Dingman, “Japan and Mahan,” p. 65.
 48. Yoji Koda, “The Russo-Japanese War: Primary Causes of Japanese Success,” *Naval War College Review* 58, no. 2, pp. 11–44, available at www.nwc.navy.mil/press/Review/2005/spring/art1-sp05.htm.
 49. Author interviews with retired JMSDF flag officers and academic specialists from the Okazaki Institute, Tokyo, February 2006.
 50. Given the extensive mining both by the Japanese defenders and the U.S. Navy, de-mining operations lasted for decades—in the end making the Japanese navy one of the most capable minesweeping forces in the world.
 51. James Auer observes, “By 1949, after Allied Occupation force reductions, the Japanese minesweeping force was the largest and most capable in the Western Pacific.” For more, see James E. Auer, *The Postwar Rearmament of Japanese Maritime Forces* (New York: Praeger, 1973).
 52. *Ibid.*, pp. 64–67.
 53. John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy* (Oxford, U.K.: Oxford Univ. Press, 1982).
 54. The three major straits are the Tsugaru Strait (dividing Honshu and Hokkaido islands), the Tsushima Strait, and the Soya Strait (between Sakhalin and Hokkaido). Beyond the archipelago, the Luzon (Bashi) Strait between the southern tip of Taiwan and the northern Philippines is deemed a critical choke point.
 55. See Kaijo Jieitai 50-nenshi Hensan Iinkai, *Kaijo Jieitai 50-nenshi*, pp. 27–28.
 56. See James Auer and Tetsuo Kotani, “Reaffirming the ‘Taiwan Clause’: Japan’s National Interest in the Taiwan Strait and the U.S.-Japan Alliance,” in *Japan-Taiwan Interaction: Implications for the United States*, ed. Roy Kamphausen (Seattle: National Bureau of Asian Research, October 2005), pp. 58–83.
 57. Auer, *Postwar Rearmament of Japanese Maritime Forces*, pp. 161–68.
 58. For details of the debate, see *ibid.*, pp. 132–47.
 59. Kaijo Jieitai 50-nenshi Hensan Iinkai, *Kaijo Jieitai 50-nenshi*, pp. 124–25. For details on the NDPO’s conceptual framework, see Christopher W. Hughes, *Japan’s Re-emergence as a “Normal” Military Power* (New York: Oxford Univ. Press), pp. 67–68.
 60. For an excellent account of the debate on sea-lane defense, see Woolley, *Japan’s Navy: Politics and Paradox*, pp. 65–87.
 61. See Christopher W. Hughes and Akiko Fukushima, “U.S.-Japan Security Relations: Toward Bilateralism Plus?” in *Beyond Bilateralism: U.S.-Japan Relations in the New Asia-Pacific*, ed. Ellis S. Krauss and T. J. Pempel (Stanford, Calif.: Stanford Univ. Press, 2004), p. 67.
 62. Toru Ishikawa, “Japan Maritime Self Defense Force’s Enduring Relationship with the U.S. Navy,” *Navy League* (December 2002).
 63. See especially Corbett, *Some Principles of Maritime Strategy*. See also William R. Sprance, “The Russo-Japanese War: The Emergence of Japanese Imperial Power,” *Journal of Military and Strategic Studies* 6, no. 3, pp. 1–24.
 64. The 1995 NDPO, the first in nearly two decades, revised its predecessor’s parameters for the post-Cold War strategic context. The NDPO accurately anticipated the new security responsibilities Japan would be called upon to shoulder.
 65. The apparent lack of enthusiasm stemmed in part from Chinese opposition to combined patrols.
 66. For details about Japan’s antipiracy activities, see John F. Bradford, “Japanese Anti-Piracy Initiatives in Southeast Asia: Policy Formulation and the Coastal State Responses,” *Contemporary Southeast Asia* 26, no. 3, pp. 480–505.
 67. Embassy of Japan, www.us.emb-japan.go.jp/english/html/pressreleases/2005/042505a.htm.
 68. Japanese Ministry of Foreign Affairs, www.mofa.go.jp/policy/terrorism/measure0510.html.

69. Japanese decision makers were deeply conflicted over the Aegis deployment, worrying that Japan would become embroiled in any combat that might ensue.
70. U.S. Department of State, "Proliferation Security Initiative," www.state.gov/t/isn/c10390.htm. See also Joel A. Doolin, "The Proliferation Security Initiative: Cornerstone of a New International Norm," *Naval War College Review* 59, no. 2, esp. pp. 31–34.
71. Jamie Miyazaki, "Japan Deploys Self-Defense Forces to Aceh," *Jane's Intelligence Review*, 1 March 2005.
72. "SDF Mission in Full Swing; But Tsunami Relief Exposes Flaws in Overseas Deployments," *Yomiuri Shimbun*, 8 February 2005, p. 4.
73. Government of Japan, "National Defense Program Guidelines, Approved by the Security Council and the Cabinet on December 10, 2004," provisional translation by authors, available on request.
74. Yuki Tatsumi, "National Defense Program Outline: A New Security Policy Guideline or a Mere Wish List?" *CSIS Japan Watch*, 20 December 2004.
75. Speculation that the ship would be named the *Akagi*, after the World War II flagship that led the attack on Pearl Harbor, stirred a controversy over Japanese intentions.
76. Hughes, *Japan's Re-emergence as a "Normal" Military Power*, p. 82.
77. Koyu Ishii, "Heisei no Hinomaru Kubo '16DDH' no Opeleshon," *Sekai no Kansen*, 1 April 2005, pp. 106–109.
78. Martin Fackler, "A Reef or a Rock? Question Puts Japan in a Hard Place," *Wall Street Journal*, 16 February 2005, p. A1.
79. "Japanese MSDF Spots Five Chinese Naval Ships near East China Sea Gas Field," *Kyodo World Service*, 9 September 2005.
80. According to the report, "The Chinese Navy aims to extend the space for offshore defensive operations while integrated combat capabilities are enhanced in conducting offshore campaigns, as mentioned above. In addition, it is pointed out that the country aims to build a so-called blue-water navy in the future. Therefore, it is important to monitor Chinese movements and identify Chinese strategies underlying them." Japan Defense Agency [JDA], *Defense of Japan 2005* (Tokyo: 2005), p. 14.
81. We use Carl von Clausewitz's maxim that war's "grammar, indeed, may be its own, but not its logic" as a device. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton Univ. Press, 1976), p. 605; and see James R. Holmes and Toshi Yoshihara, "Mao Zedong, Meet Alfred Thayer Mahan," *Australian Defence Force Journal* 171, forthcoming October 2006.
82. Kim, *Naval Strategy in Northeast Asia*, p. 173.
83. Ni Lexiong, "Sea Power and China's Development," *Liberation Daily*, 17 April 2005, p. 2, U.S.-China Economic and Security Review Commission, www.uscc.gov/researchpapers/translated_articles/2005/05_07_18_Sea_Power_and_Chinas_Development.pdf. See also Holmes and Yoshihara, "The Influence of Mahan upon China's Maritime Strategy," pp. 53–71.
84. Ni, "Sea Power and China's Development," pp. 1–2. On Germany's quest for seapower, see Holmes, "Mahan, a 'Place in the Sun,' and Germany's Quest for Sea Power," pp. 27–62.
85. Ni, "Sea Power and China's Development," p. 4.
86. *Ibid.*, p. 5.
87. Andrew J. Nathan and Robert S. Ross, *The Great Wall and the Empty Fortress: China's Search for Security* (New York: W. W. Norton, 1997), pp. 24–26.
88. See for example Ryohei Oga, "What the PRC Submarine Force Is Aiming For," *Sekai no Kansen*, 1 July 2005, pp. 96–101, and Toru Kizu, "Japan and China: A Comparison of Their Sea Power," *Sekai no Kansen*, 1 November 2004, pp. 84–91.
89. "China Bringing Okinawa 'within Range': What Underlies Oilfield Development in the East China Sea," *Sentaku*, 1 January 2006, pp. 46–47.
90. Yoshiko Sakurai, "Proposal to Prime Minister Koizumi: The Enemy Is within Japan," *Sankei Shimbun*, 12 January 2006.
91. For "string of pearls," Bill Gertz, "China Builds Up Strategic Sea Lanes," *Washington Times*, 18 January 2005, available at www.washingtontimes.com/national/20050117-115550-1929r.htm.

92. Hideaki Kaneda, "The Rise of Chinese 'Sea Power,'" *Philippine Daily Inquirer*, 22 September 2005.
93. Yoichi Funabashi, "Japan's Waters: Vast in Size and Potential," *Asahi Shimbun*, 13 January 2004.
94. Jun Kitamura, "The U.S. Military's Perception of Japan and National Strategies That Japan Should Have: Proposal for the Future of the Japan-US Alliance," *Seiron*, 1 February 2006, pp. 298–307.
95. JDA, *Defense of Japan 2005*, p. 43.
96. See "JDA to Step Up Vigilance against PRC; GSDF to Conduct Joint Exercises with U.S. Military; MSDF Developing New Torpedo," *Nihon Keizai Shimbun*, 31 December 2005, and "Japan, U.S. to Simulate Defense for Outlying Islands in Map Exercise," *Kyodo World Service*, 4 August 2005.
97. "Maritime Self-Defense Force News," *Sekai no Kansen*, 1 December 2005, pp. 160–61.
98. "Jieitai vs. Chugoku Gun: Jieitai Wa Kakuta-takaeri," *Bessatsu Takara jima*, 1 September 2005.
99. John B. Hattendorf and Donald M. Schurman, "Introduction," in Corbett, *Maritime Operations in the Russo-Japanese War*, pp. v–xvii.



Captain Smith is adjunct professor of military and emergency medicine and adjunct professor of surgery at the Uniformed Services University of the Health Sciences in Bethesda, Maryland. He is also professor of surgery (Urology) at the Medical College of Georgia in Augusta, Georgia. He is a frequent contributor to the Review, most recently in the Summer 2005 issue.

Captain Bohman is the Chief of Professional Services for 1st Medical Battalion, 1st Marine Logistics Group, Marine Forces Pacific, at Camp Pendleton, California. He received his MD from the University of Oklahoma and completed his general surgery training in the Navy at the Naval Medical Center, Oakland, California. Dr. Bohman has been (and is scheduled to be again) officer in charge of Marine forward resuscitative surgery system teams in Operation IRAQI FREEDOM. He served as Amphibious Task Force Surgeon off Beirut in 1984, deployed to the Arabian Gulf during DESERT SHIELD/DESERT STORM, and deployed to Mogadishu in 1992–93 for Operation RESTORE HOPE.

MEDICAL COMMAND AND CONTROL IN SEA-BASED OPERATIONS

*Captain Arthur M. Smith, MC, U.S. Navy Reserve (Retired), and
Captain Harold R. Bohman, MC, U.S. Navy*

Medical support of the sick and wounded is a complicated, resource intensive, and vital aspect of any over-the-horizon operation. It needs to be considered as a major subordinate command element just as the Ground Combat Element, the Air Combat Element and the Combat Service Support Element are.

A NAVY COMBAT SURGEON

During World War II it took the Navy and Marine Corps years to confirm and refine their prewar doctrine for amphibious attack. The labor began with the first U.S. landings at Guadalcanal in August 1942; the resulting doctrine, organization, tactics, and techniques were subsequently used by the Army in Europe. Early operations in both theaters highlighted the enormous difficulties associated with essential medical elements, and it was not until late 1944, perhaps 1945, that these problems were adequately solved. During future major expeditionary operations, will it take that long for a latent functionally effective medical support system to evolve? Will medical support of the anticipated “sea base” concept of operations, for example, be obligated to recapitulate the same sad evolution of repetitive mistakes committed during prior conflicts over the past century? It is imperative that those who bear responsibility for ensuring that prompt and competent care is provided to the combat injured examine the lessons emerging from historical precedent. Likewise, it would be reasonable to consider the “revolutionary” concept of establishing a “medical command and control element” in joint expeditionary operations, to obviate the often-validated reality that those who choose to ignore the lessons of history are destined to repeat them.

In late 1992, the Navy formally shifted the focus of its planning from a Cold War scenario for opposing Soviet naval forces in midocean toward a concept of

countering land- and sea-based forces of potential regional aggressors in heavily defended littorals. It moved the focus of Navy planning from a geographical environment where the force would operate primarily by itself to one of joint or combined expeditionary/amphibious warfare from a sea base independent of any land-based logistic lodgment. Today, in attempting to transform itself to meet twenty-first-century needs, the Navy is emphasizing not only increased readiness but also the ability to deploy naval forces quickly in response to crises and conflicts around the world, notwithstanding homeland defense needs.

Since every option for transformation involves human assets, the potential for sickness and injury must be factored into any operational equation. From a medical perspective, a series of questions need to be answered, such as what specific forms of threat conjoined joint medical forces will likely face, and what role Navy medical resources will play in enabling the rest of the joint/combined force. What are the specific medical readiness goals for Navy medical assets functioning in a joint environment, and what resources will be necessary to reach them? Concurrently, what form of information architecture will be required? Who, in the final analysis, will be responsible for ensuring compliance with goal expectations? Historical evidence of dysfunctional medical support during the last century of conflict is profoundly discouraging; some medical command and control mechanism in such joint/combined operations will be necessary to ensure functional compliance with readiness and operational objectives. Let us look first at the operational future.

SEA BASING AND ITS PROPOSED MEDICAL SUPPORT

A series of innovative proposals followed the adoption of the sea-base concept. New naval formations, such as the expeditionary strike group (amphibious ships combined with surface combatants, attack submarines, and land-based P-3 maritime patrol aircraft), were implemented. It has also been proposed to launch expeditionary operations, complete with command, control, and support infrastructures, directly from sea bases, to be formed, without necessarily establishing an intermediate land base, by a combination of amphibious and sealift-type ships. (The sea-basing concept responds to a concern that fixed overseas land bases in the future will become increasingly vulnerable to enemy anti-access/area-denial weapons such as cruise missiles and theater range ballistic missiles.)¹ Computer technology will potentially tie together the personnel, ships, aircraft, and installations of the sea base in a series of highly integrated local and wide-area networks capable of rapidly transmitting critical information, under the rubric of “network-centric warfare.” An additional key program relating to sea basing is the notional Maritime Prepositioning Force (Future), or MPF(F), ship, which would replace the Marine Corps’s current “black bottom”

maritime prepositioning ships operated by the Military Sealift Command utilizing civilian mariner crews. The MPF(F) ships are to be specifically designed to support the sea base while under way. Implementation of the sea-basing concept will also possibly affect integration with future ships of the *San Antonio* (LPD 17) class of amphibious dock landing ships (which is replacing the old LPD types and five older LSD-36 dock landing ships) as well as the LHA Replacement (LHAR) program meant to retire the older *Tarawa*-class amphibious assault ships. Furthermore, it is anticipated that the legacy T-AH hospital ships will be replaced by a medical support system incorporating advanced-level medical facilities within the MPF(F)s and the expeditionary strike group.

Under current consideration is the operational expectation that the component parts of a sea base could “close”—arrive and begin operation—anywhere in the world’s oceans within ten days of the executive order, by strategic air and sea lift, to be followed overnight by the insertion of two battalions of an expeditionary brigade into an operational objective, one by air and another by sea, all without any formal logistical support lodgment ashore. The goal is to complete the entire “ship-to-objective maneuver” within thirty days. The return of the force to the sea base (“retrograde reconstitution”) would take an additional thirty days. The seagoing platforms of the sea base would comprise the ships of an expeditionary strike group and a carrier-based strike group, united with ships of the Maritime Prepositioning Force. The assemblage would sustain ground, sea, and air operations with logistic support, command, control, communications, computers, intelligence, surveillance, and reconnaissance. It is envisioned that MPF(F)s themselves will meet all logistic requirements, including berthing for over sixteen thousand personnel, as well as extensive medical modules with surgical-specialty capabilities (known as “echelon level three” care). The medical modules would operate under “established hospital standards of care,” utilizing appropriate nursing operating procedures. They would require specialized and trained personnel, equipment, and quantities of supplies as necessary to match the operational exposure of combat personnel.

Under the sea-basing blueprint, a ground combat component inserted ashore would have a minimal “footprint,” including a minimal medical support structure. It might be augmented by forward resuscitation and surgical (FRSS) units or some functional equivalent, providing limited surgical capability beyond that intrinsic to operational battalions. Even so, the limited depth of medical resources ashore will mandate prompt evacuation for the bulk of casualties—generally by air, or when required by high-speed seagoing “connector” vessels—to the ships of the sea base, primarily the ships of the expeditionary strike group and MPF(F)s. If afloat resources are to be continuously available for new casualties, there will have to be an additional mechanism for evacuating initially

treated casualties from the sea base to higher-level medical facilities, perhaps thousands of miles away.

An important question is: Will it work?

HISTORICAL MEDICAL LESSONS FOR SEA BASING

Gallipoli

History has adjudged the British attempt to take the Dardanelles at Gallipoli to be an amphibious fiasco, a failure owing in large degree to a lack of coordination between attack and supporting elements, including the medical services. Among the many medically related issues was the paucity of medical communications and a poorly coordinated mechanism for transfer of casualties out to ships, many of which were scarcely able to care for them, if at all. Many deaths ensued, as did profound morbidities. The implication today for the likely result of poor coordination of medical assets under the sea-base concept is obvious.

On 26 April 1915 Surgeon General Birrell, director of medical services for the combined attack of the British and the Australian and New Zealand Army Corps (ANZAC), requested that he and his deputy be allowed to join the general headquarters on board the battleship *Queen Elizabeth*, where the operational commander was, to supervise casualty evacuation. His request was refused, and he was embarked instead on board *Arcadian*, a ship that possessed neither wireless communications with the shore nor medical assets.

On 28 April Birrell was sent the message, “*Lutzow* [a transport being used as a hospital transport ship] filling up rapidly. Request name of next hospital ship. Where is the advanced depot of medical stores? Running short of supplies.” Another message read, “Wounded arriving rapidly—about 500. Probably require another hospital ship.” To these messages there was no reply. The director of medical services never received them. He was isolated—all signals from shore were conveyed by wireless to *Queen Elizabeth*, where the general’s staff, which was supposed to be coordinating the wounded evacuation, remained silent.²

Casualties were transported to the beach on the backs of pack animals, as immortalized in ANZAC legend by the donkey “Murphy,” led by members of various irregular groups, such as expatriate European Jews (many driven by the Ottomans out of Palestine to Egypt) organized by the British into transportation units known collectively as the “Zion Mule Corps” (see photo). The great numbers of Commonwealth casualties practically stopped operational activity on the beaches, and the devastation these drovers found at the water’s edge was graphically described by Colonel John L. Beeston of the Royal Australian Medical Corps: “The whole beach is filled with wounded of all kinds and descriptions. It has quite unnerved me for a time. Some of the wounds are so ghastly,



Private John "Simpson" Kirkpatrick and his donkey "Murphy" evacuating casualty with leg wounds, Gallipoli

Australia War Memorial, J06392

whole abdomens blown away and the men still living. They are in such numbers that it is difficult to get along, and there is only one hospital ship in the bay."³

At least twenty-two converted "hospital ships," twenty troop ships, and other transports and merchant ships had been set aside for the reception of sick and wounded, but fear of Turkish coastal artillery and German submarines prompted many of these vessels to lie well offshore or in island ports some distance away. From the beaches, casualties were towed seaward in small craft, each carrying thirty patients, often in a frantic search at night for a ship to accept them. Concurrently, as troopships landed their complements on the beaches or transports unloaded their cargoes, they were rapidly filled with casualties. These "carriers" then moved to the hospital ships or other vessels lying offshore and likewise transferred the casualties at sea, under occasionally difficult, even dangerous, conditions. As described by one historian, "the wounded were evacuated in large horse

barges with sterns that could be let down for easy access; stretcher cases were placed in big boxes and hoisted into ships with the aid of derricks."⁴ Some were swung on board by means of cargo nets dropped over the side.⁵ At a later stage, minesweepers partially fitted for medical purposes were brought into use for evacuating casualties, and the British Red Cross provided six motor launches specially equipped to tow barges from the Gallipoli beaches (see photo). Ultimately, the large number of casualties at Gallipoli led to overcrowding, rendering many ships unsuitable as base hospitals. They became, in essence, casualty-clearing stations, providing interim and often merely token treatment of patients. The more serious cases were transferred to distant shore bases in Egypt, Malta, and in some cases England itself.

Could the casualty-management breakdown witnessed at Gallipoli occur again under the modern banner of sea basing? Will a proposed diminution of



Seaward evacuation of wounded by barge from Anzac Cove, Gallipoli
Australia War Memorial, C02679

medical assets (a “reduced medical footprint”) accompanying expeditionary forces inserted from sea bases allow critical, life-threatening wounds to be attended to adequately? If all that is available ashore is a meager casualty-sorting capability, and no efficient medical regulating network is established, will the results be any different from those experienced at Gallipoli?

The U.S. Invasion of Grenada

On 21 October 1983, with the designation of Commander Joint Task Force 120, intensive operational planning was begun for Operation URGENT FURY. However, no combat support planners, including medical representatives, were invited to participate. Consequently, no estimate of logistical supportability was completed prior to execution, and the required medical support system did not develop. The short lead time and the absence of a designated task force surgeon to coordinate medical services at the joint level left each service to plan medical support within the scope of its own organic assets, with little or no joint coordination of such activities as casualty care management, whole blood procurement, and aeromedical evacuation. Erroneous assumptions may have been made as well. For example, the commander of the 82nd Airborne Division was informed that two amphibious ships, USS *Guam* (LPH 9) and *Trenton* (LPD 14), which were in the vicinity of Grenada, could provide significant medical and

surgical support. The record is unclear, but this inaccurate information may have been responsible for his ultimate decision to keep Army medical support to a minimum.⁶

The hostilities lasted ninety-six hours—123 casualties and eighteen deaths were recorded—and brought combat wounded to both *Guam* and *Trenton*. No significant or sustainable tactical medical asset was established within the combat zone during the hostilities, nor were there triage facilities ashore. Without trained and experienced triage corpsmen or officers, casualties were not sent in an orderly and logical flow to the proper receiving facilities. There were no established medical communication nets between the Army and Navy, let alone with *Trenton* and *Guam*; Army helicopter pilots, unfamiliar with the Navy ships and their silhouettes, brought casualties to whichever flight deck was most convenient. On several occasions the better-equipped *Guam* was overwhelmed with both minor and lower-priority delayed casualties, while *Trenton*, which had no surgical capability, laboratory, or blood bank, was sent critical casualties. In essence, medical assets were squandered and overutilized simultaneously.⁷

Beirut 1983

The U.S. Marine compound at the Beirut International Airport was bombed on 23 October 1983. The tragedy presented an opportunity to evaluate in detail the American military medical system's ability to react to such incidents or, by extension, to a larger conflict. Among the principal components tested that day were medical command and control, casualty evacuation, medical regulating procedures, capabilities of facilities, joint medical readiness mechanisms, and the transition from routine peacetime to contingency operations.

A medical review group chaired by Rear Admiral James Zimble later evaluated the medical response to the bombing. Its 1984 report detailed serious deficiencies in medical readiness, attributing them in large part to a lack of medical evacuation resources, shortages of equipment and personnel, and inadequate joint planning for wartime or contingency requirements. The problems, it found, were also the result of the low priority habitually assigned to medical readiness in the planning, programming, and budgeting processes. As the report declared, "Had the ratio of killed-outright-to-wounded been reversed, so that over 200 casualties had required treatment, rather than fewer than 100, the medical system might well have failed." The report recommended greater investment in essential medical readiness resources and refinement in the command and control over wartime support and operation of these resources.⁸

During contingencies, smoothly running casualty support operations are critical; a lack of joint planning obviously hampers the sharing of limited resources and creates confusion over responsibilities. As the Zimble Report noted

in 1984—in a finding that raises problems that might be associated with future sea basing—there was no comprehensive joint plan for the use of the medical assets that were already in place. The services' contingency medical plans were “stovepipe documents”—that is, their orientations were purely “vertical,” or intraservice—and bore little relationship to each other. This was a direct result of the tendency of the services' medical components to support their respective line units as if they were the only ones, and likewise a consequence of the lack of a joint medical staff structure to arbitrate differences. There was no mechanism for achieving efficiency through interservice sharing in peacetime, coordinating operations in wartime, or resolving inconsistencies among the components' plans.⁹

OPERATIONS DESERT SHIELD AND DESERT STORM

An important element of the medical evacuation process, familiar in both military conflict and civilian mass-casualty disasters, is medical regulation, to which we have already referred. “Medical regulators” manage the process by selecting sources of care, matching patients' medical requirements with the reported capabilities of treatment facilities. They must also ensure that the receiving medical facilities are not over- or underutilized—an essential matter when numerous and dispersed facilities are involved. During the Persian Gulf War of 1990–91, medical communications problems represented the greatest limitation in medical regulation, followed by failures of regulating systems to exercise effective oversight of casualty movement. The result was that casualty evacuation was effectively compromised on many occasions.

Communications Problems

Troops on the battlefield could not communicate with ambulances. The radios used by medical regulators had an operating range of only fifteen miles, whereas, for example, the XVIII Corps area was 250 miles deep and a hundred wide. The ambulance units operated with similar equipment and therefore experienced great difficulty in working efficiently with regulators or hospitals. As a result, they often took patients only to hospitals whose locations they knew, and those hospitals were not always the ones best able to assist the wounded. Air ambulances also had difficulty learning where casualties awaited. One helicopter company, in the words of the General Accounting Office (as the Government Accountability Office was then known), “listened to the international disaster channel to find out where casualties were. . . . After patients were loaded, pilots flew directly to known hospital locations over Iraqi tanks and infantry. One pilot stated that if it had been a ‘shooting war,’ the company would have lost every Huey [helicopter] and its crew.”¹⁰

To overcome these shortcomings of communications equipment, VII and XVIII Corps restricted air ambulances to shuttle runs between designated collection points near the battlefield and drop-off points adjacent to hospitals. As a Navy medical officer with a Marine Corps tank battalion described his situation, “The locations of higher echelon medical facilities were not even available at the battalion or division level.”¹¹

Communications between medical units and between the different levels of care (such as between aeromedical evacuation units and field hospitals) were made even more difficult by the prevailing variety of radio equipment and the use of commercial along with tactical telephone systems. Without adequate communications capability, some Army and Air Force facilities frequently had no warning of the quantity or type of casualties that they were to receive. Some field hospitals did not know that casualties were on the way until the aeromedical evacuation helicopter arrived. Obviously, for them, planning for patient-care needs was out of the question.¹²

During the movement into Iraq, some Army hospitals were left for several days with no method of communicating with either combat or evacuation units. The chief nurse of the Army 12th Evacuation Hospital found its communications in Saudi Arabia nonexistent; the equipment was too diverse and too limited in capability. Helicopters had FM radios with a range of only twenty miles; the field hospitals had AM radios, which in any case could not be used near a battlefield, since their transmissions were traceable by the enemy. Furthermore, while combat and command units had satellite equipment, that did not put them in direct communication with the medical units that lacked such capabilities. Also, due to either traffic saturation or inherent equipment limitations, none of the systems at aeromedical evacuation locations proved consistently reliable.¹³

Communications problems for combat and support units, of course, are not new. They were identified during the URGENT FURY invasion of Grenada in 1983, during the 1990 JUST CAUSE contingency in Panama, and during such Joint Staff exercises as PROUD EAGLE (worldwide), REFORGER (Europe), and TEAM SPIRIT (Korea).¹⁴

Casualty Regulation Breakdown

Communications problems among all services during DESERT SHIELD and STORM degraded the casualty-regulating mission. These were primarily related to limitations and mismatched capabilities on both the intra- and inter-service levels. Some medical facilities could not communicate with their control elements, with one another, with supported combat units, or with supporting logistical units.

The inability of medical regulators to manage the evacuation of patients could have led, had the projected numbers of casualties actually occurred, to the underuse of some hospitals and the overwhelming of others—a potentially tragic situation. A “lessons learned” report by the Air Force’s Air Mobility Command stated that as a result of communications problems, 43 percent of patients arrived at the wrong airfield and had to be rerouted to the appropriate medical facility.

While automated medical regulating systems existed, they were unfortunately not standardized, interoperable, or available in all theaters, and they could not track the location and status of individual patients. Each service had its own computer systems, and the incompatibility of those systems severely limited the ability of medical organizations to interoperate during the war.¹⁵

Casualty Evacuation Problems

The process of medical evacuation entails moving patients under medical supervision both to and between medical treatment facilities. The Army and Marine Corps provide most of the ground and helicopter lift for tactical medical evacuation. (The primary Air Force medical mission is to provide fixed-wing aeromedical evacuation within and between theaters.)

In the Persian Gulf conflict, problems arose in the effective use of both ground ambulances and helicopters in tactical evacuation of patients. Ground ambulances could not be used as often as had been planned because of the rugged terrain, a lack of navigational equipment, and the long distances. Even air evacuation was taxed by the distances from pickup points to the hospitals; refueling was frequently required, and crews had trouble locating fuel sites. Some air ambulances landed near tanker trucks, tanks, and Bradley fighting vehicles to ask for fuel and for directions to the nearest proper supply.¹⁶

Lacking its own tactical medical evacuation assets, the Navy ordinarily relies upon returning (“retrograde”) combat support aircraft with primary missions other than medical. They serve as “transportation of opportunity” for moving casualties to medical facilities afloat and to land-based advanced-echelon medical facilities. Obviously, because of other priority commitments, such aircraft are not always available in sufficient numbers when urgent medical evacuation requirements arise. In the Gulf in 1990–91, short-range Army and Marine helicopters were available for medical evacuation, but, as Army and Marine Corps officers acknowledged, too few of them—at least in part, as asserted by the Defense Department’s inspector general, because Navy aeromedical requirements had not been previously made known and the Army and Marine Corps had accordingly not arranged to support them. As noted by the Navy’s surgeon general, “lack of dedicated tactical aeromedical evacuation capability in naval services

would have created difficulties had the theater (Southwest Asia) matured as expected.”¹⁷

To have had any fewer or less capable Air Force aeromedical evacuation assets would have affected patient care as well. The commanding officer of the Air Force’s theater aeromedical evacuation squadron later stated that insufficient aircraft were allocated to evacuating patients and that the predicted flow of casualties would have overwhelmed them. Further, even given sufficient aircraft, there were shortages of crews and in-flight evacuation equipment; the Air Force surgeon general was convinced that “we were fortunate that the medical evacuation system was not taxed.” If it had been, substantial shortfalls in strategic and tactical aeromedical evacuation would have materialized.¹⁸

Nobody should have been surprised. Like communications problems, deficiencies in aeromedical evacuation assets are nothing new. They were noted in several Joint Staff–sponsored exercises, including REFORGER in 1987 and WINTEX in 1988 and 1989. During the latter, in Europe, a lack of dedicated aeromedical evacuation assets paralyzed the entire combat zone until three thousand exercise casualties could be removed.¹⁹

The Air Force, particularly aware before the 1990 Iraqi invasion that it did not possess sufficient personnel or equipment to manage patients needing individualized care during evacuation flights out of Southwest Asia, required that any hospital unit evacuating a patient needing constant attention was to provide an in-flight medical attendant and enough specialized equipment, such as respirators or cardiac monitors, to last five days. Two Navy fleet hospitals were required to provide for additional care at staging sites. These requirements, however, were not taken into account in fleet hospital and hospital ship manpower and equipment authorizations. Had casualty rates approached predicted levels, the inventory of ventilators, intravenous fluids, medications, litters, and a host of other items would have been rapidly exhausted by these evacuation needs.²⁰

In a 1993 report the Defense Department inspector general indicated that operation plans of the commanders in chief still, two years after DESERT SHIELD and DESERT STORM, did not promote the efficient use or sharing of medical assets. It indicated that the U.S. Central, European, and Pacific commands did not propose to integrate medical support at all, instead assigning each service component to provide for its own forces only. The report found further that such inconsistencies persisted because of poor testing of medical systems during joint exercises—exercises that included only token medical participation and could not validate readiness.²¹

OPERATION IRAQI FREEDOM

Anecdotal reports from surgical staffs, as well as from tactical aeromedical nursing staffs, do not, unfortunately, offer much hope for the future.²² Once again, they related discouraging examples of the state of medical regulation: inadequate coordination/communications between the extraction site and the flight controllers at the Direct Air Support Center–Patient Evacuation Team, as well as between the inbound casualty evacuation aircraft and casualty delivery sites.

Invasion Maneuver Phase

The surgical teams related not only difficulty in communicating with evacuation controllers but also that they received no warning of incoming casualties. Likewise, occasional long waits at casualty evacuation pickup points were observed, as well as insufficiencies of personnel or equipment at casualty-drop-off landing zones. The limited communications and limited available airlift likewise made reinforcement or replacement of medical personnel difficult.

Concurrently, training deficiencies of medical personnel were reflected in the relaying of incorrect landing zone coordinates and erroneous patient priority status, as well as in frequent failure to report to controllers updates in the physical status of casualties prior to pickup. In addition, during the invasion of Baghdad, inexperience and lack of training led to “over-triage” of casualties by frontline medical responders. On the medical evacuation messages, all casualties had been designated as “urgent surgical,” some inappropriately, leading the flight controllers to direct all casualties to the forward colocated surgical teams, nearly overwhelming their capability. One forward-located surgical team was obligated to care for seventy-eight significantly injured casualties in a forty-hour period, performing surgery upon fourteen in twenty-four hours. Indeed, the combination of communications deficits, lack of available resupply, insufficient return of nurses who had accompanied evacuation flights of casualties, and physical exhaustion all significantly degraded their capability. As noted at the time by one of the authors, “Only because of an unplanned fifteen hour break, return of the en route care nurses, and serendipitous arrival of supply blocks with commonly used medical consumables, were the teams able to meet another 30 hour period of sustained casualty flow.”²³

Transfer of clinical data, including health and treatment status of casualties, from one treatment point to another was not easily accomplished either; charts were sometimes lost or illegible when received at higher levels of care. Attempts were made to convey information by writing on the skin or dressings, but in vain; the notes were often smudged, soaked, or illegible. Nurses assigned to provide en route care attempted to pass on information vital to ongoing care, but

time was often limited. (Incomplete information transfer can lead to repeated, and possibly unnecessary, operations. For example, one combat support hospital backing up the surgical teams re-operated upon every casualty as a matter of policy, mistrusting even the information it had. Another such hospital used a policy of selective re-operation, depending on the information available, the status of the patient, and the perceived experience level of the forward surgeons who had first treated the casualties.) In addition, the forward surgical treatment units, lacking feedback on the outcomes of their interventions, could not know if their practices needed to be changed.

An additional issue consistently seen at this time was that of conflicting perspectives between tactical commanders and medical commanders on the geographic placement of forward medical assets.

Security and Stabilization Phase

During redeployment of Navy medical assets in IRAQI FREEDOM II,* the location of surgical assets was again often determined by ground combat commanders, who based their decisions upon evacuation times, attempting to ensure that every Marine was within one hour of an operating table, if needed. This once resulted in placement of a Navy FRSS team within twelve minutes' evacuation time of an established advanced Army combat support hospital, thereby creating redundancy and wasting limited valuable resources that were needed elsewhere, such as during the initial operations in Fallujah.

In May 2004, the Army surgeon general received from his trauma consultant a report regarding theater trauma care that confirmed many of the above observations.²⁴ The consultant noted, first, disorganized delivery of trauma care on the battlefield, resulting in nonoptimal staffing and placement of surgical assets, and casualties occasionally being sent to the wrong location. Second, he found, medical records were not reliably reaching the next level with casualties, with a resultant impact upon clinical care and ability to capture aggregate experience.

Finally, he recommended the establishment of a "Joint Theater Trauma System." A fully functional joint combat trauma system would embrace all aspects of trauma management, from prevention, training, and evaluation through all phases of care with command and control, as well as data collection, evaluation, research, and process improvement. It would also involve dedicated communications and ensure adequate standards and oversight of first-responder care at the point of injury, initial resuscitative care at the battalion aid station, forward surgery, en route care, definitive care either in the theater or aboard MPF(F)s or ships of the expeditionary strike group, and finally strategic transport care

* Corresponding in U.S. Marine Corps usage to the service in Iraq of I Marine Expeditionary Force from March 2004 to March 2005, conducting "Phase 4" (security and stabilization) operations.

beyond the combat zone. The system would be under the oversight of a “corps trauma surgeon,” an experienced trauma physician who would:

- Negotiate with ground commanders regarding the optimal locations of facilities with surgical capability
- Minimize delays at forward locations and analyze time intervals between different levels of care
- Ensure continuous improvement of casualty care at forward levels, on the basis of data accounting for the great variability of care, outcomes, skills, and circumstances
- Optimize evacuation routes
- Ensure consistent policy regarding en-route interventions by aeromedical nursing staffs
- Ensure reliable communications
- Reduce geographic redundancy between medical units of various services with similar capabilities
- Ensure effective communications and logistical support.

UNANSWERED QUESTIONS FOR SEA-BASE COMMANDERS

Recent advances in development of body armor and changing tactical utilization of improvised explosive devices by opposing forces may well have shifted the spectrum of wound survivability. The incidence of mortal wounds of the chest and abdomen may have diminished, thereby allowing greater numbers of casualties with severe injuries to the head, brain, and neck, as well as major blood vessel injuries of the extremities, to survive long enough to reach forward combat unit medical staffs, such as those of battalion aid stations. Granted, the resuscitation capabilities of battalion medical personnel on the ground, both corpsmen and physicians, are projected to grow. Nonetheless, will the treatment system envisioned under sea basing’s concept of a minimal medical footprint ashore allow timely and competent treatment of these severe injuries?

In 1973, during the Yom Kippur War, a surgical hospital erected by the Israeli Defense Force in the Sinai Desert received casualties in groups of from thirty-six to 140 (on one day 440 casualties), stabilizing them and transferring most to hospitals in central Israel.²⁵ Would not such a volume in a future major conflict quickly overwhelm a limited number of Navy/Marine forward resuscitation and surgical units or equivalent if they were available in combat service support areas? FRSS units each have only two surgeons, one surgical theater, a small number of nursing personnel, and no appreciable patient-holding capacity. In a sea-base

scenario accompanied by a large number of ground combat casualties, would not their inability to sort out types and levels of injuries rapidly, directing personnel needing advanced care to appropriate facilities and returning those with minimal injuries to their units, result in a mass, hurried, and necessarily indiscriminate transfer of casualties to an offshore medical facility, the sea base itself?

Failure to identify the most needy casualties for evacuation imposes enormous burdens upon transportation assets and afloat facilities. Military planners unfamiliar with the realities of combat wound management often consider medical evacuation but an exercise in logistics, in which numbers of anticipated casualties, quantifiable capacities of transport facilities, availability times of transport shuttles, and numbers of available beds are the primary considerations. That view ignores the realities of wound care and implies an acceptance of an overall increase in deaths, or at least disability, and a decrease in the return of men to duty (see photo).



Casualties being evacuated by CH-46, IRAQI FREEDOM

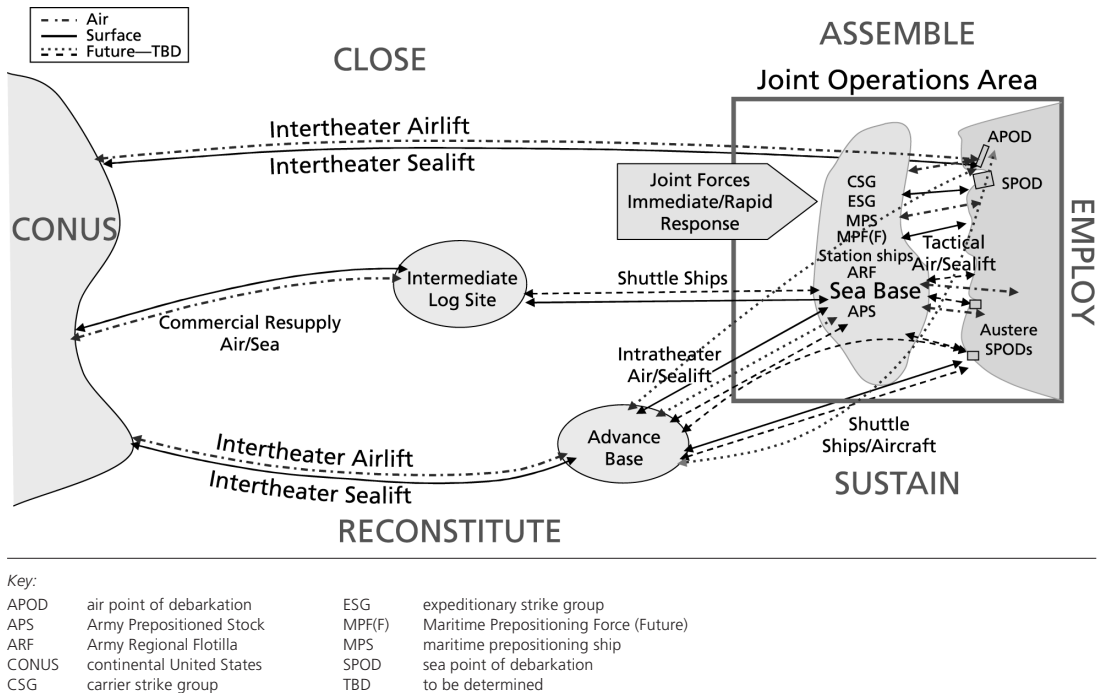
U.S. Navy

How can patients evacuated from a battlefield to a sea-based medical entity be properly routed to the facility best suited to their specific needs? Absent a well practiced and smoothly functioning casualty-distribution system, supported by advanced and networked communications, the growing proportion of surviving casualties with severe wounds are likely to find themselves not in the seaborne medical facility best prepared to treat their specific injuries but in the less capable facilities of amphibious assault ships. Ideally, a sea base would include MPF(F) ships with modules capa-

ble of advanced neurosurgery to manage brain and spinal cord damage and of vascular surgery to treat complicated blood-vessel injuries. Clearly, time expended transferring patients with such devastating injuries, without knowledge of their specific needs, from a battalion aid station to a marginally staffed facility aboard an LHD could be fatal, or at least sharply lessen prospects for recovery, and consume limited resources unnecessarily (see figure).

Are the necessary medical-regulation capabilities regularly practiced during exercises? In 1994 one of the coauthors was the deputy amphibious task force

SEABASING VIEW



surgeon in a major Pacific exercise, TANDEM THRUST, and in 1997 served as the deputy naval forces surgeon in a combined U.S./Australian TANDEM THRUST off the Australian coast. In neither exercise was medical regulation practiced. In fact, actual injured personnel from the afloat task force were flown ashore to a civilian hospital. A report generated by international colleagues who had held medical leadership positions in a later exercise, RIMPAC 2000, noted a similar lack of medical regulation “play.” Ironically, the report held that the most useful medical communications method in RIMPAC 2000 was unclassified e-mail, which worked throughout the exercise.²⁶

A COMMAND MEDICAL ELEMENT

The historical record of dysfunctional medical support during armed conflict reflects persistent neglect of the fundamentals of managing the needs of the sick and wounded. In the setting of joint/combined sea-based operations, dissociated from a land base, therefore, serious consideration should be given to a command entity specifically responsible for operational control over joint medical functions. Such responsibility must be vested in a single entity or individual who is appropriately placed within the command structure, is assigned adequate staff to discharge these responsibilities, and has clearly delineated authority and accountability. Likewise, there must be a clear and functional chain of command

within this entity that can develop as well as execute joint medical plans involving the sea base.

This “medical command element” would promulgate local doctrine sufficient to guide not only joint medical planning but also that of each service in the joint task force. Consequently, authority must be delegated by the chain of command to the command medical element to ensure that these principles are incorporated into operational medical planning at every echelon and that the plans developed by service components are both coherent and compatible.

The medical command element would also:

- Ensure that the sea-base medical system can integrate with the joint strategic patient evacuation system in wartime as well as during contingencies.
- Ensure that responsibility for control of the tactical and strategic components of the medical evacuation system lies within the same chain of command and that clear guidelines regarding aircraft destinations and patient distributions, as well as priorities for medical evacuation, are promulgated.
- Ensure that the system of medical communications at the joint level, as well as within the various components of the sea base, are sufficient to support wartime medical operations, are simple and direct, and will work reliably during times of crisis.
- Determine whether the sea base can accept biological, chemical, or radiological warfare casualties.
- Ensure that adequate mechanisms exist in the medical planning system for assessing the capabilities of friendly nations to provide hospitalization and evacuation support in the event of mass casualties, and also for arranging that support via adequate means of swift communication channels.

Without a well developed medical support plan and methodical testing of its worthiness, the Navy and allied services may not be aware of all the possible impediments to the rapid surge and timely engagement of their forces in response to crises within a sea-base context. A comprehensive set of goals, performance measures, time lines, milestones, benchmarks, and guidance documents are necessary to manage any joint medical response plan effectively and to determine if the plan is capable of achieving its goals. In any case, systematic testing and evaluation in the field of new concepts is an established practice for gaining insight as to how systems and capabilities will perform in actual operations. Commitment to the implementation of these most basic fundamentals of medical support in the field must be firmly established. It is to answer this call that a medical

command-and-control entity is proposed. The medical people who are now practicing “good medicine in bad places” are far better prepared than ever before. Now, they need to be given a command structure and proper resources to do their job even better.

Will it work? We must not forget that military innovation and improvements are fostered by developing new concepts and organizational ideas, transferring them into operational reality, and employing them. Table-top and command-post exercises, war games, and experiments have traditionally been applied to these purposes, exploring military doctrine, operational concepts, and organizational arrangements. The concept of a deployable medical command element is surely worthy of similar consideration.

NOTES

1. For sea basing and related issues, see Carnes Lord, ed., *Reposturing the Force: U.S. Overseas Presence in the Twenty-first Century*, Newport Paper 26 (Newport, R.I.: Naval War College Press, 2006), esp. chap. 5.
2. Michael Tyquin, *Gallipoli: The Medical War* (Sydney: Univ. of South Wales Press, 1993), p. 20.
3. *Ibid.*, p. 74.
4. D. Winter, *25 April 1915: The Inevitable Tragedy* (St. Lucia: University of Queensland Press, 1994), p. 235.
5. See also Tyquin, *Gallipoli*, pp. 18, 84.
6. Personal communication, 1992, from Douglas H. Grier (then Lt. Cdr., MC, USN), who was a general medical officer attached to USS *Trenton* (LPD 14) and also served aboard USS *Guam* (LPH 9) during the Operation URGENT FURY intervention in Grenada.
7. Grier, related personal communication in 1999.
8. U.S. Defense Dept., *Medical Readiness Planning in the U.S. European Command* (Washington, D.C.: Defense Medical Readiness Review Group, 18 April 1984) [hereafter Zimble Report].
9. See *ibid.*
10. U.S. General Accounting Office [hereafter GAO], *Operation Desert Storm: Full Army Capability Not Achieved*, GAO/NSIAD 92-175 (Washington, D.C.: 1992), p. 47. See also Arthur M. Smith, “Integrated Medical Support in Joint Operations: A Question of Commitment,” *Naval War College Review* 48, no. 3 (Summer 1995), esp. p. 34ff.
11. R. J. Burke [Lt. Cdr., MC, USN], “Medical Support for a U.S. Marine Corps Armored Battalion: Problems Encountered during Operation Desert Shield/Storm Cease Fire and Some of Their Solutions,” Seventh Conference on Military Medicine, “The Spectrum of Medical Support to Operation Desert Shield/Storm,” Uniformed Services University of the Health Sciences, 13–15 April 1992.
12. U.S. Defense Dept., *Medical Mobilization Planning and Execution*, Report 93-INS-13 (Washington, D.C.: Inspector General, 1993), pp. 119–26.
13. *Ibid.*
14. *Ibid.*
15. GAO, *Operation Desert Storm: Problems with Air Force Medical Readiness*, GAO/NSIAD-94-58 (Washington, D.C.: 1994), p. 10.
16. GAO/NSAID 92-175, pp. 45–49.
17. DoD IG Report 93-INS-13, pp. 149–50.
18. *Ibid.*, p. 151.
19. *Ibid.*, p. 148.
20. GAO, *Operation Desert Storm: Improvements Required in the Navy’s Wartime Medical Care Program*, GAO/NSAID-93-189 (Washington, D.C.: 1993), p. 4; GAO/NSIAD-94-58, p. 5.

21. DoD IG Report 93-INS-13, pp. 9–11.
22. Lt. (j.g.) George J. Brand, NC, USNR, en route care nurse, “Experience of USMC CASEVAC and MEDEVAC Operations during OIF (Operation Iraqi Freedom)-II,” PowerPoint presentation, FRSS [Forward Resuscitation and Surgical System] 1, Combat Service Support Group 15; Lt. Matt Lawrence, MC, USN, flight surgeon, “Operation Iraqi Freedom II CASEVAC Debrief,” PowerPoint presentation, Marine Heavy Helicopter Squadron [HMM] 161.
23. See H. R. Bohman, OIC FRSS Teams, “Operation Iraqi Freedom: Experience of the USMC Forward Resuscitative Surgery System and Lessons Learned,” PowerPoint presentation at the Navy Trauma Symposium, September 2003.
24. John Holcomb [Col., MC, USA], trauma consultant for Army Surgeon General, “OIF II Trauma System Issues Information Brief,” PowerPoint presentation to the 2nd Medical Brigade Surgeon and Multinational Corps Iraq (MNC-I) Surgeon, May 2004.
25. Reuven Pfeffermann, Ron R. Rozin, Arie Durst, and G. Marin, “Modern War Surgery: Operations in an Evacuation Hospital during the October 1973 Arab-Israeli War,” *Journal of Trauma* 16, no. 9 (September 1976), pp. 694–703; Ron R. Rozin and Y. Kleinman, “Surgical Priorities of Abdominal Wounded in a Combat Situation,” *Journal of Trauma* 27, no. 6 (June 1987), pp. 656–60; Ron R. Rozin, J. M. Klausner, and E. Dolev, “New Concepts of Forward Combat Surgery,” *Injury* 19 (May 1988), pp. 193–97; and Ron R. Rozin [Lt. Col., IDF], “Combat Surgery in the Yom Kippur War,” *Navy Medicine* 76, no. 1 (January–February 1985), pp. 6–7.
26. Mark Parrish [Cdr., RAN], “‘Rim of the Pacific (RIMPAC) 2000’: Medical Lessons Learned Report,” supplied to the authors.

U.S. COAST GUARD HEALTH SERVICES RESPONDERS IN MARITIME HOMELAND SECURITY

Captain Arthur J. French, MD, USPHS, Joe DiRenzo III, and Chris Doane

Superior operational service is our core purpose, and we have long been recognized as the world's best Coast Guard. America expects that we will bring the same level of professionalism and maritime leadership to the war on terrorism that we have traditionally brought to all our other missions.

ADMIRAL THOMAS H. COLLINS, USCG

Unlike most other federal agencies, the Coast Guard is a true first-response organization, with statutory authority and responsibilities that allow re-

Captain French is a 1973 graduate of the U.S. Coast Guard Academy and a 1984 graduate of the Uniformed Services University of the Health Sciences School of Medicine. After seven years as a Coast Guard line officer he transferred to the U.S. Public Health Service. He is board certified in emergency medicine and has served in a variety of operational assignments as a flight surgeon. He is presently assigned to Coast Guard Headquarters.

Mr. DiRenzo is a graduate of the U.S. Naval Academy (1982), the Naval War College, and the Marine Corps Command and Staff College; holds an MA in business administration from California Coast University; and is a doctoral candidate in business administration, with a specialization in homeland security, at Northcentral University, Prescott, Arizona. After nine years in the Navy, he transitioned to the U.S. Coast Guard, retiring in 2003. He is currently the Anti-Terrorism Coordinator of the Coast Guard Atlantic Area staff.

Mr. Doane is a 1980 graduate of the University of Maine–Machias, and holds an MS degree in ocean engineering from the University of New Hampshire. He retired from the Coast Guard in September 2003. He is now the Coast Guard Atlantic Area Chief of Response and Port Security.

sponses following a disaster without waiting for a Stafford Act declaration of state request for assistance. This ability and expectation have been lauded in the public press critiques of the government's response to Hurricane Katrina. As an agency within the Department of Homeland Security, the lead federal department for responses to terrorism and natural disasters, the Coast Guard must maintain capabilities to respond to terrorism and all-hazard incidents in the maritime and coastal regions. Katrina demonstrated that medical first responders are integral players during catastrophic incidents in addition to search and rescue (SAR) responders. In terms of response planning and execution, Coast Guard health service personnel are an untapped resource.

The Department of Homeland Security (DHS) has been leading an effort incorporating all levels of government and the private sector to build a comprehensive and coordinated campaign to minimize the risk of terrorism to the United States. Much of the

department's and Coast Guard's efforts have focused on threat and vulnerability—that is, preventing terrorist attacks. We must also ensure that an appropriate investment in mass casualty response capabilities is made to minimize the consequences of a terrorist attack, transportation security incident, or natural disaster. This article will examine maritime consequence management and a proposal for using the Coast Guard's health services personnel as an integral resource for its responsibilities under the National Response Plan.

The Coast Guard has also focused on prevention in its efforts to secure the U.S. maritime domain. For over fifty years the Coast Guard has been charged with overarching responsibility for the safety and security of American ports and waterways. The Maritime Transportation Security Act of 2002 underlined the service's role as the lead federal agency for maritime security. Since 9/11 it has produced outstanding results. The nation's maritime transportation system is far more secure than it was on 11 September 2001, and the improvement continues.

For over two centuries, the Coast Guard has been charged with lead responsibilities for maritime consequence management; in fact, most people think of the Coast Guard in connection with maritime searches and daring, dramatic rescues. Today this role in maritime SAR has been codified in a National Search and Rescue Plan. Similarly, the Coast Guard has long been responsible for marine environmental protection and response; that role too has been formalized, in the National Contingency Plan developed in accordance with the Oil Pollution Act of 1990. This plan makes the Coast Guard the lead federal agency for responding to oil spills and hazardous material releases, including intentional chemical or biological releases, in the coastal zone—that is, all tidally influenced waters and adjacent waterfronts.

The service's responsibilities as a lead agency involve not just federal agencies but state and local governments as well. This fact has given the Coast Guard a collective "persona" unique among federal agencies—that of a true first-response organization, whose assets arrive on scene alongside, if not ahead of, those of local agencies and operate in full partnership with the local response community. For many states and municipalities, the Coast Guard is the primary resource for security, search, and rescue response on the water. The Katrina response demonstrated that the Coast Guard may also be the primary or, in some cases, the only first responder in coastal communities devastated by a disaster.

While the Coast Guard is the lead federal agency for coordinating responses in the maritime domain, the service lacks the capacity to meet all of these demands; further, its jurisdiction and responsibilities in various aspects of the maritime domain are shared with other government agencies. Therefore, it has built cooperative partnerships, at all levels and in both the public and private

sectors, designed to pool resources. The keys to success in this respect have been the Incident Command System (ICS) and the concept of “unified command.” The latter is quickly described—under its rubric, entities having significant jurisdictions over, or stakes in, an incident or operation provide representatives with authority to act in a decision-making council that, in turn, ensures unity of effort. This process has proven effective over the last decade and has been mandated for all federal agencies by Homeland Security Presidential Directive 5, as set forth in the National Response Plan and the National Incident Management System.

For the Coast Guard, the Incident Command System goes back to the 1989 *Exxon Valdez* oil spill and the Oil Pollution Act of 1990, as a result of which the Coast Guard adopted the ICS from the National Fire Service as a fairly robust infrastructure for responding to maritime spills and releases. Until the 11 September 2001 attacks, the system was primarily limited to environmental hazards. Because few casualties were involved, there was no operational requirement for medical first responders; concern was focused on environmental issues and responder safety. As oil-spill-prevention programs took effect the number of spills decreased, and the Coast Guard, as a good steward of the taxpayer’s dollar, allowed the response infrastructure to shrink—reducing funding for equipment, reassigning personnel, etc.

With the terrorist attacks of 9/11, the Coast Guard’s senior leadership, starting with the Commandant, then Admiral James M. Loy, understood the transformation needed and established maritime homeland security as the service’s number-one mission priority alongside SAR and rebalanced mission emphases in terms of this national mandate. Since then all Coast Guard programs have been required to improve current and future readiness for the “new normalcy,” as described in the *Coast Guard Maritime Strategy for Homeland Security*.¹

The *Maritime Strategy*, which prescribes principles, strategies, and program elements, establishes prevention, detection, and deterrence as the primary foci of the Coast Guard’s security efforts. Such critical issues as maritime domain awareness and implementation of the omnibus Maritime Transportation Safety Act have dominated the allocation of the service’s financial and human resources. With respect to the latter, the service has called upon its personnel to perform at levels well above normal in preventing maritime terrorist attacks, and indeed they do, but as a result they have little time left for consequence-management preparedness. While everyone accepts the old adage that “an ounce of prevention is worth a pound of cure,” prevention against terrorism cannot be 100 percent effective, the *Maritime Strategy* acknowledges: “The maritime terrorist threat presents a daunting challenge, and adequate measures against it can never be completely guaranteed.” As Hurricane Katrina demonstrated, we will also always be faced with responses to major natural disasters.

The service's lack of emphasis on consequence management does not align with the *Maritime Strategy*, which states, "The Coast Guard equally values emergency preparedness and the response needed to minimize damage and recover from any future terrorist attacks that may occur, despite its best efforts at prevention and deterrence. . . . To meet this new threat increased levels of preparedness and response capabilities are required, including additional personnel specially trained and equipped to mitigate the impacts of a terrorist incident." Nonetheless, and despite the increased risk of a terrorist chemical, biological, radiological, nuclear, or high-yield-explosive (CBRNE) attack, other than strengthening the CBR response capabilities of its National Strike Force, the Coast Guard has done little to rebuild its former oil and hazardous-material response infrastructure. Nor has it adequately addressed the unique first-responder requirements of mass casualties in an intentional or unintentional incident, particularly as might result from an attack on a cruise ship, high-capacity passenger vessel, or crowded waterfront venue.

This shortfall is further exacerbated by the declaration in the *Maritime Strategy* that "the Coast Guard will particularly ensure the readiness of its forces to work safely in areas where CBRNE weapons have been used, as well as its ability to communicate with first responders from other military, civil, and law-enforcement agencies in applying common disaster-relief and terrorist incident protocols." In addition, the president has directed that we will build "an emergency management system that is better able to manage not just terrorism but all hazards; a medical system that is not just better able to cope with bioterrorism but with all diseases and all manner of mass-casualty incidents."² An attack on a chemical tank ship or a terrorist craft loaded with a chemical, biological, radiological, or high-explosive weapon to be exploded in a populated seaport would severely test our maritime response capabilities.

The challenge requires that the Coast Guard adapt its internal response infrastructure and its medical expertise to the prospect of maritime mass casualties. Medical backgrounds will be needed if response teams are to bring comprehensive perspectives to planning, coordinating with other entities, and offering necessary staff expertise. The service has taken the positive step of establishing two Incident Management Assist Teams, deployable groups of specially trained and highly experienced personnel in the Incident Command System and major incident management. They have assisted Coast Guard incident commanders on multiple occasions, including the response to Katrina, providing a nucleus of incident management expertise with outstanding success. Unfortunately, the duty is a collateral one; the teams' members are permanently assigned to a variety of Coast Guard commands. These units are already hard pressed to meet their day-to-day mission load, and their commanders are increasingly reluctant to allow

their qualified personnel to join the teams. Attempts to create permanent billets to staff the assist teams have fallen short in budgetary competition. While effective in incident management, these teams do not have health services personnel assigned to provide a bridge to the medical community and a medical perspective to the incident management planning.

MARITIME POPULATIONS AT RISK

History shows that some terrorist groups seek to achieve their goals by maximizing human casualties so as to gain the most publicity possible. The growth in the passenger capacity and numbers of cruise ships and ferries operating in or adjacent to U.S. waters has thus increased the probability of an intentional or unintentional maritime mass-casualty incident. Cruise ships alone carry more than 6.5 million American citizens annually. Cruise ships and ferries are “soft” targets for terrorist attacks; clearly passengers of these vessels are a population at risk.³

An attack on such a ship could generate hundreds of critical casualties requiring airway, oxygenation, ventilation, and intravenous support. Previous incidents show that the sinking of a vessel would result in a large number of hypothermic casualties.⁴ In the case of a chemical or biological attack, psychological casualties—symptomatic but stable—would outnumber actual physical casualties by ten or fifteen to one.⁵ The response would be little less for an attack that did not produce large numbers of injured; all of the hundreds of passengers (some cruise ships and ferries carry in well excess of a thousand passengers) would have to be screened and prioritized for evacuation.

The likely consequences of a maritime mass-casualty incident, then, will require a deliberate multidiscipline, multistakeholder, multiresponder approach from emergency-response planners in the homeland security and search-and-rescue communities. This includes planning an adequate health services support (HSS) architecture. The core priorities include saving lives, reducing suffering, and mitigating the impact on an affected population; in all of these the medical community will bear a heavy burden. How well we prepare for maritime mass-casualty incidents will determine whether it can carry them.⁶

While the response to Hurricane Katrina was not a true maritime incident, and other agencies had lead responsibility for casualty care, the lack of involvement by Coast Guard health services personnel in planning for and executing a hurricane response was reflected in initial weak coordination between Coast Guard rescuers and medical response personnel. The Coast Guard’s search and rescue personnel did an incredible job responding to pluck Katrina’s victims from peril and transport them to safer locations. This response represented perhaps the largest mass rescue operation in the service’s history. However, while victims were transported to locations of relative safety, these movements were

not effectively coordinated during the early days of the response with emergency medical support personnel to optimize post rescue care. This less than optimum coordination reflects the lack of a medical perspective in the service's command response planning.

MARITIME FIRST RESPONDERS

The term "first responder" has several definitions, depending upon context. Federal Emergency Management Agency (FEMA) first-responder grants go to law enforcement, fire/rescue, and emergency medical services agencies. The medical and public health grant programs of the U.S. Department of Health and Human Services consider emergency medical agencies and hospitals as first responders as well, to the extent that they are "first receivers" of victims. The relevant joint capstone document discussing the five phases of casualty care management defines the role of first responders:

The first response may include self-aid and buddy aid, combat lifesavers, medics, hospital corpsmen, physician assistants (PAs), physicians, or other medical personnel. The first responder should have a working knowledge of the next level of care available and the patient movement system. Within this phase, the focus of health care providers is to save life and limb and stabilize the patient sufficiently to evacuate to the next level of care. A stabilized patient is one whose airway is secured, hemorrhage is controlled, shock is treated and fractures are immobilized.⁷

The 2005 federal budget included \$3.6 billion to fund first responders—a 780 percent increase since 9/11. The Bush administration has proposed doubling first-responder-preparedness grants to high-threat urban areas. In fiscal 2004, DHS awarded more than forty-six million dollars to metropolitan medical response teams, established for domestic WMD incidents. However, federal grants for civilian first responders do not necessarily translate into improved maritime first-response capabilities unless gaps in maritime capabilities are deliberately identified and dollars are spent to address these gaps specifically. Though the Coast Guard remains, in the maritime realm, the primary first responder among federal, state, and local agencies, it does not receive federal first-responder grants and has realized minimal growth in its budget in this area. Until personnel are assigned to careful planning for maritime contingencies, gaps and shortfalls will remain undocumented and therefore continue to be ignored.

In accordance with the National SAR Plan, National Contingency Plan, and National Response Plan, which apply respectively to various circumstances, Coast Guard geographical commanders (that is, commanders of sectors and districts) will be the federal incident commanders for mass-casualty responses offshore, near the shore, or on the waterfront. For incidents occurring beyond three nautical miles (i.e., beyond state waters), the Coast Guard has sole jurisdiction

and responsibility for consequence management. But command staffs, while skilled and experienced in coordinating large-scale, unified incident responses, do not have the health and medical expertise required to recognize, plan for, or comprehensively address the medical issues that would result from a maritime mass-casualty incident. The U.S. maritime search-and-rescue system is designed primarily for incidents of limited size with relatively few victims, which constitute the vast majority of cases. For them the Coast Guard relies upon small-boat and air stations strategically located along the coast and in estuaries. Generally, each Coast Guard boat or air station has one ready crew on board; these crews, supported by personnel in dispersed district and sector command centers, are expert in locating and rescuing victims in small numbers. Most crew members have basic first aid training; some have qualifications as emergency medical technicians. These Coast Guard capabilities are augmented by local community squads and state-owned assets. These state and local responders have training and qualifications like those of Coast Guard responders; these units are few in number and capacity, and they are limited to inshore/near-shore operations.

Mass-rescue/casualty situations, which are not routinely practiced, could quickly overwhelm such resources. Exercises are being scheduled, but meanwhile, planning for comprehensive, multiagency responses lags. This shortfall is due in part to a lack of planning capacity within the Coast Guard; there are simply not enough people to conduct daily operations and plan for future contingencies as well. In addition, the perspectives of personnel and commands developing plans are limited by their individual experience. For example, “boat drivers” and other operators tend to focus on locating, rescuing, and transporting victims, tending to overlook the medical details involved with treating the victims. Planning teams must incorporate personnel from a wide variety of backgrounds, including medical, to ensure the synergy required to develop a comprehensive plan that addresses all aspects of a mass-rescue/casualty response and leverages all necessary government/private-sector capabilities.

Studies of conventional mass-casualty incidents have shown that 10 to 15 percent of casualties will die should they not receive timely prehospital intervention. Many maritime incidents will involve prolonged evacuation and transport times, meaning that advanced life support will have to be deployed to the scene. Secondary triage by advanced-level medical responders at offshore casualty-collection points will be critical; these responders require a higher level of clinical expertise than that of emergency medical technicians. The Coast Guard cutters, Navy ships, and merchant vessels that would act as offshore casualty-collection points lack such medical teams. Perhaps municipal medical responders or federal and Defense Department disaster augmentation teams could rapidly deploy

to and operate on the scene at a maritime incident; their availability and capability to do so have not been adequately explored.

All this does not align well with the expectations of local or state government, or of the public. The general presumption is that the Coast Guard is as prepared to respond to a maritime mass-casualty incident as the local community is to respond on land. Communities within fifty miles of the country's largest 120 cities are covered by federally funded Metropolitan Medical Response Teams capable of treating a thousand casualties; no such support is currently in place for the maritime region. Coast Guard area commanders have identified this gap as a priority strategic issue.⁸

The Coast Guard's internal health services support personnel need to be actively involved in the process of understanding and addressing these substantial gaps in preparedness. The Katrina response demonstrated the lack of active health services responders' engagement with operational responders. With the exception of Safety and Environmental Health Officers and forensic dentists, the medical response was limited to augmenting aviation medicine support to Coast Guard aircrews at fixed operating bases. No physicians were deployed to augment rescue and operational units and assist with coordination with medical response organizations or the numerous medical triage and transportation issues. Nor were Coast Guard health services personnel deployed to assist DoD or DHS medical teams in caring for the displaced evacuees. While the Air Force provided its own medical evacuation crews during the evacuation of patients staged at the New Orleans Airport, Coast Guard C-130s required augmentation from other services for MEDEVAC crews. The Defense Department has learned through painful experience to include health services in mission planning, but no such culture change has occurred in the Coast Guard. In addition, Coast Guard staffs have hesitated to "lean forward" and ensure that operational commanders fully appreciate the medical and health demands they will face in a mass-casualty incident and to promote their service's health support capabilities.

The HSS program has traditionally not had an operational response role, instead supporting health protection and health fitness for Coast Guard forces. The Director of Health and Safety manages the service's program at the headquarters level. The chain of command for local Coast Guard clinics and sickbays runs through Integrated Support commands via regional Maintenance and Logistics commands. The result is an administrative and operational separation between Coast Guard operational commanders and health services support activities that impedes coordination of medical operational-response planning.

While Coast Guard health services safety and environmental health officers have bridged this operational-support gap and are well integrated into marine

safety and operations response plans, the inclusion of local health services in direct planning for and support to mass-casualty responses has been inconsistent and ill defined. With the exception of a 1990s medical response “away team” concept in the Coast Guard’s Seventeenth District in Alaska and a partnering attempt in the Thirteenth District (in Marine Safety Office Puget Sound, between Coast Guard health services representatives, the Defense Department, and the Department of Homeland Security’s Regional National Disaster Medical System Coordinator), the discrepancy between Coast Guard health and medical maritime homeland-security requirements and operational readiness has not been addressed. This “delta” must be closed now, before an attack or accident forces medical and health shortcomings to be solved in the midst of a mass-casualty crisis.

The Coast Guard must proactively engage its HSS component in maritime homeland security mission planning, preparedness, and operations. Operational commanders need to “mine” their health services support personnel for information on the medical threats to the populations at risk, the response capabilities required to mitigate these threats, and the availability of medical resources to meet these needs. They also need to cause their personnel to interact and develop cooperative relationships with their health services peers at other medical facilities. The *Coast Guard Medical Manual* already assigns senior medical officers responsibilities for disaster planning and coordination with local authorities, but it needs to be defined further by doctrine and supplemented with policy guidance, particularly with respect to maritime disasters.⁹ Planning should adapt a “network-centric” concept, one that relies on regional medical capabilities and mutual aid to support maritime incident management.¹⁰ Regional medical mutual-assistance maritime-response plans that associate Coast Guard health services with specific geographical areas have not been established in most places. Creating these networks will require close coordination and dedicated communication.

Coast Guard responsibilities for direct support of maritime homeland security preparedness and response need to go beyond planning and coordination support to include operational support. While medical personnel from other agencies may become available for rapid deployment to a maritime incident, Coast Guard health services support personnel represent a valuable resource. Coast Guard Auxiliary healthcare providers also serve as “force multipliers” and backfill for deployed active-duty healthcare providers during surge operations. Doctrine needs to create, and align the service’s first responders with, the health and medical roles for terrorism and mass-casualty operations prescribed by the Department of Homeland Security.¹¹ The *Coast Guard Incident Management Handbook* defines numerous medical, health, and safety roles for responses to maritime mass-casualty scenarios (hazardous-materials accidents, collisions of

vessels, terrorist acts, use of weapons of mass destruction, etc.);¹² it does not identify the assets that would fill these roles.

Health services support doctrine must be congruent with the Incident Command System.¹³ It must ensure that Coast Guard first responders—emergency medical technicians, physicians, dentists, and pharmacists—are available to deploy and integrate into the service’s response structure on little or no notice. Coast Guard operations, logistics, and marine safety programs have established training and exercise requirements for their respective communities, and the health services support community must do the same. Medical response coordination, including on-scene treatment and triage, patient evacuation coordination, and mutual aid coordination, for major contingency responses is incredibly complex. It requires the expertise of HSS personnel in the planning process as well as in the actual event.

Health Services Support Response Functions

Several planning scenarios involve mass casualties from natural or technological disasters and terrorism, for which on-scene emergency medical care, triage, and en route medical care will be essential. Incident Command System positions will have to be staffed for medical command, medical communications, triage, treatment, transportation coordination, and medical supplies.¹⁴ These functions will be under the control of the ICS operations section, alongside or in place of the medical unit within the logistics section established to care for responders themselves.

Coast Guard operational commanders who have anticipated the need for deployable medical incident-response teams depend upon local civilian health and medical organizations for such leadership positions. While such community emergency services may have valuable experience, there are disadvantages in using non-Coast Guard personnel, who would not be closely familiar with the service’s command and control information systems. Civilian responders, who have other primary obligations, are not likely to be readily available to participate in deliberate planning or in training and exercises. In addition, many coastal regions do not have sufficient public safety infrastructure to support a maritime mass-casualty incident to begin with, let alone detach personnel to the Coast Guard.

Establish Health and Safety Maritime Response Teams

In addition to participating in the contingency planning process, the Coast Guard needs to organize and train its health services support personnel to be medical first responders and surge assets. Forming regional medical and dental providers into Health Services Maritime Response Teams (HSMRTs) analogous to the Metropolitan Medical Response System, thus consolidating the collective

regional resources from maintenance and logistics, district, and integrated support commands, would make trained and qualified Coast Guard personnel available for deployment for major contingencies on a sustained basis.

The teams would be composed of Coast Guard medical officers, dental officers, pharmacists, safety and environmental health officers, and enlisted health services technicians. A concept-of-operations document would lay out types, structure, and missions; required qualifications for members; and sources of material support. HSMRTs would be flexible, expandable or collapsible in size as required for specific missions. Staffing would be notional, without prior assignments to a specific team, with the exception of mass-casualty-incident teams, discussed below. Teams would train with existing Incident Management Assist Teams and National Strike Force Strike Teams to enhance interoperability.

The concept document would set up an optimal structure and standard operating procedures for preparing and organizing mission-specific teams for various missions, in contrast to the current *de novo* “select and direct” approach, predicated primarily upon personal interest and availability. Nonetheless, as experience as shown, reluctance by commands to supply members can be overcome only by strong commitment to the health services support program, a true cultural shift.

Teams would be designated by type according to missions, along the lines of U.S. Army Special Medical Augmentation Response Teams (SMARTs) and Air Force Small Portable Expeditionary Aeromedical Rapid Response (SPEAR) teams. Teams would be deployed individually or in combinations as required for a mission-specific assignment. Several types have been proposed.

- Mass-Casualty Incident Medical Team—supplying personnel to establish the medical branch within the operations section of the ICS organization during mass-casualty/mass rescue incidents. (These functions include on-scene triage, treatment, and medical evacuation coordination. These teams need to be preassigned to each sector, because of the likely need for a rapid on-scene, no-notice response.)
- Contingency Operations Medical Unit—within the Logistics Section of the Incident Command System organization, providing medical support, including rehabilitation and mental health services, to responders. (Such operations occur every three years or so in the Coast Guard; medical support needs to be part of a complete package.)
- Incident Management Team—providing a robust health and safety staff to incident commanders at the district/sector headquarters levels. These teams would advise incident commanders and unified commands on medical and health aspects of major contingencies, representing an organized,

comprehensive approach to mass-casualty/health emergency incidents that was lacking in the 2001 anthrax attack response.¹⁵

- Preventive Medicine Unit—offering preventive medicine and environmental health capabilities, task organized and deployed to assess, prevent, and control potential health threats, including bioterrorism and mass vaccination centers.
- Humanitarian Disaster Support Team—assisting in migrant/refugee processing and support, natural disaster relief, and noncombatant evacuation. (These teams would also be available for augmentation of fixed capabilities during disasters.)
- Tactical Support Team—supporting law enforcement and tactical operations, such as Marine Safety and Security Teams, Tactical Law Enforcement Teams, and Port Security Units. Health services personnel assigned would have specialized training and qualification in tactical medicine.
- Chemical/Biological/Radiological/Nuclear Support Team—providing technical expertise to the incident commander and operating forces in support of potential or actual hazardous-material incidents, including supervision of decontamination procedures. (The team, equipped to operate in the “warm zone,” would support National Strike Force Marine Safety and Security Teams.)

Standing up Health Services Maritime Response Teams requires adequate logistical support, funding for equipment and training, and triage and treatment sets staged in each sector, ready for immediate deployment. There has been reluctance to divert Coast Guard funds from direct patient care to prepare for contingency responses; without a servicewide mandate, financial disincentives will persist. Such contingency sets as exist have been established from local funds and inventories based on local medical officer preferences, creating nonstandard triage procedures and equipment. A Coast Guard–wide standardized HSMRT medical set, including decontamination equipment, would optimize procurement and inventory maintenance. Standardizing medical sets and protocols also facilitates logistical support and proficiency training between units. Every effort should be made to ensure interoperability and compatibility with systems used by other federal, state, and local agencies.

SITUATIONAL AWARENESS AND INTEROPERABILITY

Comprehensive preparedness will require integrating electronic information systems, including performance support, geographical information, and

communications interoperability. Off-the-shelf technology is available and should be exploited.

“Situational awareness” within any battle space means, in a health services context, knowing where casualties and medical resources (triage/casualty collection points, hospitals, and air medical and ground transport staging sites) are. Health services response elements need to be in the incident commander’s “common operational picture.” Health services leadership elements need geographical information software and hardware that can collect, analyze, and share spatial data, and the health services–specific requirements need to be integrated into the Hawkeye Core C2 Suite and Common Situation Display System now being deployed to sector command centers.

Handheld digital assistants that incorporate wristband barcode or radio-frequency identification-device readers to track victims and facilitate triage are now commercially available.¹⁶ Innovative performance support system software also exists, such as the Automated Decision Aid System for Hazardous Incidents (ADASHI), a Defense Department–funded, portable, computer-based, integrated decision-support system for hazardous material for civilian or military first responders to CBRNE incidents. It integrates the specific technical functions required to manage such an incident—initial hazard assessment, hazard source analysis, mitigation alternatives, physical protection requirements, decontamination methods, medical treatment, and triage criteria.¹⁷ Programs like ADASHI can also augment traditional “tabletop” training, by tracking decisions automatically and projecting consequences of those decisions.

Interagency communications have been problematic in almost every major disaster.¹⁸ This lack of communications interoperability was blamed for preventable deaths of New York City firefighters in the World Trade Center collapse.¹⁹ During a mass-casualty incident, reliable communications among on-scene units, triage and transport officers at casualty collection points, responding emergency medical services, and receiving hospitals will be critical. The Coast Guard’s new emergency communication system (Rescue 21) will improve interoperability but will not meet multiagency health system communications requirements during a major incident. Deployable medical and health communications systems are needed that meet interoperability standards being established by the Department of Homeland Security’s Project SafeCom.²⁰

HEALTH SERVICES RESPONSE TEAM PREPAREDNESS AND EXERCISES

DHS agencies, including the Coast Guard, routinely lead or participate in national intermodal terrorism exercises designed to enhance their ability to respond to transportation security incidents. Health Services Maritime Response

Teams members should regularly participate in exercises at the local and regional levels to improve response capabilities, practice mutual aid, and assess operational improvements and deficiencies.²¹

The Coast Guard's existing lessons-learned processes will help it evaluate progress, validate the effort, and direct future resources.²² HSMRTs should attend formal team training, such as that provided by the DHS-FEMA Emergency Management Institute's Hospital Emergency Response Training for Mass Casualty Incidents in Anniston, Alabama, conducted at its Noble Training Center. HSMRTs should exercise with their sector operational units and command and control cadre, utilizing patient care scenarios developed by federally funded centers.²³ In addition, to enhance interoperability, team members should seek out every opportunity to train with members of other federal, state, and local medical response teams. This would have the added benefit of developing the personal trust that is so critical during an incident response.

Integrating operational HSMRTs into sector operations and exercises ensures that health services providers remain directly tied to Coast Guard warfare and national security, and that they serve in "military essential" positions (positions that require uniformed military personnel). Maintaining military medicine deployment capabilities guards against potential losses of billets from internal or external reviews, as is happening in the Navy.²⁴ HSMRT exercises and deployments would also serve as a structure to meet the readiness requirements defined by the U.S. Public Health Service Office of Force Readiness and Deployment.²⁵

The creation of these HSMRTs will take time. As an interim step, Coast Guard health services support personnel should be identified, trained, and qualified to serve as medical and health experts on existing incident management assist teams. This will introduce the health services community to the operational arena and begin building the awareness and momentum necessary to overcome the serious medical and health deficiencies in the service's mass-casualty response capability.

The Coast Guard has awesome responsibilities for the safety and security of the U.S. maritime community. Since 9/11 the Coast Guard has made tremendous strides forward in establishing maritime security measures to prevent a terrorist attack. While the service's search-and-rescue and mass rescue capabilities, as demonstrated during Hurricane Katrina, are significant and steadily improving, the same cannot be said for the service's efforts to strengthen its mass casualty response capabilities. If the service is to succeed across the full spectrum of maritime consequence management, its planning and preparedness process must use a cross-program approach to incorporate all essential expertise and

necessary perspectives. We must not let the highly visible successes of the Katrina response overshadow the transparent, but significant, first-responder deficiencies that were not taxed during this incident. The Coast Guard has not made adequate use of its health services support community, including the Coast Guard Auxiliary, for planning or interagency communication and coordination, or as a response asset. The Coast Guard must capitalize on its present expertise by fostering an internal cultural change, introducing an operational aspect to the health services' traditional support role.

Alignment of the health and safety program resources and mission priorities with the Department of Homeland Security strategy and Coast Guard *Maritime Strategy* will not be without difficulties.²⁶ Establishment of all-hazards-capable Health Services Maritime Response Teams would be a tangible step toward that alignment, one that would visibly demonstrate the "value added" of the health services support program to the missions of the Coast Guard. Transforming traditional health services providers into operational first responders will require innovation, "forward leaning," and cultural transformation. Our maritime population is at risk, the responsibility is ours, and the time to act is now.

NOTES

1. Transportation Dept., *U.S. Coast Guard Maritime Strategy for Homeland Security*, Coast Guard Publication 3-01 (Washington, D.C.: Headquarters, U.S. Coast Guard, December 2002); *Commandant's Direction 2003*, available at www.uscg.mil/Commandant/speeches_Collins/newcomdt_direction.pdf.
2. George W. Bush, *Securing the Homeland: Strengthening the Nation* (Washington, D.C.: White House [29 April 2003]), available at www.whitehouse.gov/homeland/homeland_security_book.pdf.
3. Associated Press, "FBI Thinks Ferries Eyed by Terrorists," 11 October 2004.
4. Jay Levinson and Hayim Granot, *Transportation Disaster Response Handbook* (San Diego: Academic, 2002), p. 249.
5. Tetsu Okumura, MD, et al., "Report on the 640 Victims of the Tokyo Subway Sarin Attack," *Annals of Emergency Medicine* 28, no. 2, pp. 129–35.
6. Pietro D. Marghella [Cdr., USN], "Red Sky at Dawn . . .," *Homeland Defense Journal* (October 2004), pp. 8–10.
7. U.S. Joint Staff, *Doctrine for Health Service Support in Joint Operations*, Joint Publication 4-02 (Washington, D.C.: 2001), pp. I-4, I-5.
8. CG PacArea/CG LantArea memo 16010, "U.S. Coast Guard Atlantic and Pacific Area Strategic Assessment," 3 March 2003.
9. Coast Guard Medical Manual, Comdt Manual M6000.1C (Washington, D.C.: 2006).
10. Marghella, "Red Sky at Dawn . . ."
11. Department of Homeland Security, *Emergency Responder Guidelines* (Washington, D.C.: Office of Domestic Preparedness, 1 August 2002); Task Force of Health Care and Emergency Services Professionals on Preparedness for Nuclear, Biological, and Chemical Incidents, *Developing Objectives, Content, and Competencies for the Training of Emergency Medical Technicians, Emergency Physicians, and Emergency Nurses to Care for Casualties Resulting from Nuclear, Biological, and Chemical (NBC) Incidents* (Washington, D.C.: Department of Health and Human Services, 2000).

12. *U.S. Coast Guard Incident Management Handbook*, ComdtPub P3120.17 (Washington, D.C.: 11 April 2001).
13. *Coast Guard Incident Command System Implementation Plan*, ComdtInst M3120.15 (Washington, D.C.: 1 February 2001).
14. *Ibid.*, "Transportation Disasters," p. 100.
15. Joseph A. Barbera and Anthony G. McIntyre, *Medical and Health Incident Management (MaHIM) System: A Comprehensive Functional System Description for Mass Casualty Medical and Health Incident Management* (Washington, D.C.: George Washington University, Institute for Crisis, Disaster, and Risk Management, 2002).
16. ComdtInst M3120.15, "Transportation Disasters," p. 109.
17. Rebecca Agrail et al., "Abbreviated Reviews of 100 Models, Simulations, and Games for Domestic Preparedness Training and Exercising," *U.S. Department of Justice: Office of Justice Programs*, www.ojp.usdoj.gov/odp/docs/Abbreviated_Product_Reviews.pdf.
18. D. C. Keyes et al., *Medical Response to Terrorism* (Philadelphia: Lippincott Williams and Wilkins, 2005), p. 329.
19. The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States (Washington, D.C.: U.S. Government Printing Office, 22 July 2004).
20. SafeCom Program, *Statement of Requirements for Public Safety Wireless Communications & Interoperability*, Version 1.0 (Washington, D.C.: Homeland Security Dept., March 2004).
21. Keyes et al., *Medical Response to Terrorism*, p. 329.
22. *Coast Guard Contingency Preparedness System*, AlCoast 417/03 (Washington, D.C.: Headquarters, U.S. Coast Guard, 4 September 2003).
23. National Bioterrorism Civilian Medical Response Center, *Strategies for Incident Preparedness: A National Model* (Philadelphia: Drexel University, 2003).
24. "Pentagon to Transfer Military Health Workers," *Washington Post*, 2 September 2004.
25. U.S. Surgeon General memorandum, "Corps Readiness," 15 July 2004, available at *U.S. Public Health Service: Office of Force Readiness and Deployment*, oep.osophs.dhhs.gov/ccrf/ccrf_essentials.htm.
26. Gary Cecchine, Michael A. Wermuth, Roger C. Molander, *Triage for Civil Support: Using Military Medical Assets to Respond to Terrorist Attacks*, MG-217-OSD (Santa Monica, Calif.: National Defense Research Institute and RAND Health, 2004).

GEOGRAPHY, TECHNOLOGY, AND BRITISH NAVAL STRATEGY IN THE *DREADNOUGHT* ERA

Jon Tetsuro Sumida

In *The Influence of Sea Power upon History, 1660–1783*, Alfred Thayer Mahan argued that the effective deployment of naval force had determined the outcomes of the great European wars of the eighteenth century. Many, if not most, readers believed that this historical survey was the basis of related major arguments that were applicable to the late nineteenth and twentieth centuries. The first was that naval supremacy was the prerequisite to economic prosperity and international political preeminence. The second was that naval supremacy could be achieved only through the possession of large numbers of battleships, which were always to be kept together in order to be able to contain or destroy enemy battleship fleets. The notion of the naval supremacy of a single country based upon battleships united in accordance with the principle of concentration of force thus be-

*Dr. Sumida is associate professor of military and European history at the University of Maryland. He is the author of *In Defence of Naval Supremacy: Finance, Technology, and British Naval Policy, 1889–1914*, and *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered*. He has published many major articles, including one in the Summer 2001 issue of this journal. Professor Sumida has been a Distinguished Visiting Professor in the Department of Military Strategy and Operations at the National War College. He is the chair of the Department of the Army Historical Advisory Committee, a member of the Leavenworth Prize committee, and, for 2004–2006, the Major General Matthew C. Horner Chair of Military Theory at the U.S. Marine Corps University.*

came identified as the essence of Mahanian strategic theory. In effect, geopolitical and naval operational strategic lines of argument were conflated into a recipe for policy that was supposed to be universally valid.

Such an understanding of what were widely believed to be the two main components of Mahan's thinking, however, was seriously flawed. In the first place, Mahan actually believed that naval supremacy in his own time and in the future would be wielded by a transnational consortium of naval powers acting in defense of a global system of free trade to the mutual benefit of participating parties. Secondly, Mahan's treatment of the principle of concentration of force in his most popular book was heavily conditioned by the

particular geographical circumstances of Great Britain and its empire. Thus while the first proposition was addressed to the question of the nature of an international system, the second was to a very considerable degree concerned with the character of the naval security problem of a single state. Insofar as naval policy in the industrial age was concerned, the relationship between the two arguments was thus much weaker than has been supposed. As a general principle, concentration of force was of course relevant to the maintenance of naval supremacy by either a single power or a coalition. But salient aspects of Mahan's historical case study were specific to British imperial strategic geography.

Mahan's views on naval supremacy as a transnational phenomenon have been explained elsewhere and will not receive further consideration here.¹ His recommended strategy for using a limited number of ships to defend interests in widely dispersed seas, however, has escaped rigorous scrutiny.² The present article will analyze Mahan's historical exposition with respect to this issue in the last chapter of *The Influence of Sea Power upon History* and establish its relevance to Britain's naval circumstances in the late nineteenth and early twentieth centuries. It will then examine the thinking of Admiral Sir John Fisher, who as service chief of the Royal Navy was actually responsible for the formulation of British imperial naval defense policy between 1904 and 1910, and again from late 1914 to mid-1915. Mahan and Fisher held opposing views of capital-ship design and the utility of history as a practical guide to policy. On the other hand, the concentration of Britain's main naval strength in home waters as the best method of defending an empire with widely dispersed territories and trade routes seemed to constitute an important area of agreement. This article will demonstrate that Fisher's concept of the proper application of the principle of concentration of force to Britain's naval circumstances in the early twentieth century was diametrically the opposite of that of Mahan, in spite of strong appearances to the contrary. It will argue, moreover, that Fisher thought this way because he believed that advances in technology had radically altered the effect of geography on strategy.

The main event of Mahan's *The Influence of Sea Power upon History* was the American Revolution. Mahan believed that this conflict was a "purely maritime war"—that is, a dispute between two roughly equal sides over territories that were for the most part remote from Europe. These conditions were unique in the record of fighting between European great states in what had been the modern period—every other war from the coming of Louis XIV to the fall of Napoleon was about continental extension in one way or another, with military affairs thus playing a major if not decisive role. In the American Revolution, the outcomes of land campaigns on colonial territories depended completely upon control of contiguous waters and ocean lines of communication. These circumstances

seemed particularly relevant to the likely conditions of major conflict in the late nineteenth century, a time of great-power rivalry over extra-European colonies and maritime commerce.

In Mahan's account of the American Revolution, the principals were the belligerent great powers, namely, Britain, France, and Spain. The American colonists and the Dutch had large interests at stake but lacked the naval strength to play significant roles at sea. Britain's primary strategic goal was to maintain its colonial empire intact, that of France and Spain to weaken Britain through the facilitation of the American rebellion and the capture of important colonial territory for their own use. Britain, therefore, stood on the strategic defensive, and it did so with a navy that was not large enough to control with assurance all major theaters of operations, which included not only European waters but distant seas off North America and India. Britain responded to these circumstances by dividing its fleet in a way that produced naval forces both at home and abroad that were on occasion weaker than those of its opponents. At Yorktown, the result was a British military disaster, one that ultimately prompted the peace negotiations that led to American independence. In the Indian Ocean, French tactical successes were insufficient to overthrow the British position but were large enough to demonstrate the great potential of naval force when used with intelligent aggressiveness. In the end, British losses and French and Spanish gains, while considerable, were not decisive—that is, Britain retained its naval and mercantile predominance. But if the American Revolution did not change the European balance of power, it did offer Mahan an opportunity to explore the application of the principle of concentration of force to an important and difficult case.

In Mahan's view, Britain's strategy had been fundamentally flawed. By sending large contingents to extra-European waters while necessarily keeping a substantial fleet at home to prevent invasion and protect converging trade routes, Britain exposed its navy to defeat in detail. The chosen policy, he argued,

to be effective, calls for superior numbers, because the different divisions are too far apart for mutual support. Each must therefore be equal to any probable combination against it, which implies superiority everywhere to the force of the enemy actually opposed, as the latter may be unexpectedly reinforced. How impossible and dangerous such a defensive strategy is, when not superior in force, is shown by the frequent inferiority of the English abroad, as well as in Europe, despite the effort to be everywhere equal.³

The proper course given the near parity in battleship strength of the two sides, Mahan counseled, was for Britain to have deployed a preponderant fleet in Europe, whose job was the containment or destruction of the main French and Spanish naval forces. These should have been watched “under all the difficulties

of the situation, not with the vain hope of preventing every raid, or intercepting every convoy, but with the expectation of frustrating the greater combinations, and of following close at the heels of any large fleet that escaped.”⁴ In addition, “the lines of communication abroad should not have been needlessly extended, so as to increase beyond the strictest necessity the detachments to guard them.”⁵ In other words, Mahan’s strategic prescription for a Britain faced by a hostile European naval coalition and burdened with the need to defend vital interests at home and valuable possessions abroad was to maximize strength at the center and minimize strength at the periphery.⁶

Mahan was aware that forfeiting contests abroad in the hope of achieving decisive success at home, as opposed to distributing substantial strength around the globe, could result in large losses of colonial territory and trade. “It has been attempted to show the weakness of the one policy,” he conceded, “while admitting the difficulties and dangers of the other.”⁷ The problem of defending a global empire while keeping home territory secure posed a predicament. In-

Thus in the end the views of both the master of strategic theory and that of practice were confounded by the course of events.

toning concentration of force as a principle was one thing; applying it to the naval strategic circumstances of Great Britain in the late nineteenth and early twentieth

centuries was quite another when the consequences of such action could be the loss of Egypt, South Africa, India, and Australia, and the destruction of the lucrative China trade. Faced with the prospect of war against France and Russia in combination, Britain responded from 1889 with enormous building programs that were intended to support a strategy of being strong around the world. In 1902, Britain was compelled to ally itself with Japan in order to overmatch the growth of French and Russian naval forces in Far Eastern waters. Better relations with France and the destruction of the Russian navy by the Japanese in 1904 and 1905 enabled Britain to reduce its naval strength in distant seas without compromising imperial security, in order to facilitate reforms in manning and maintenance and to save money. The effect was a concentration of the main strength of the Royal Navy at home, which was also convenient given the growing naval strength of Germany.

The buildup of the British battle fleet in home waters through the withdrawal of heavy units in distant seas seemed to follow Mahan’s recommendations in the last chapter of *The Influence of Sea Power upon History*. Admiral Sir John Fisher, the First Sea Lord from 1904 to 1910 and also from late 1914 to the middle of 1915, was the instigator of the redeployment of the Royal Navy. Fisher’s hostility to naval history as a guide to policy is notorious. In June 1909, his dismissal of the practical utility of history outraged Captain Herbert Richmond. Fisher, Richmond

wrote in his diary, had stated that the “teachings of the past are ‘the record of exploded ideas’” and that “the present needs no guide, it is self-sufficient.”⁸ But Fisher excepted Mahan from his general strictures. The two men had met and corresponded while delegates to the Hague Peace Conference in June 1899.⁹ Mahan seems to have made a good impression, because Fisher’s first known references to the American’s writing came not long after. The “‘teachings of history’ have no value for us,” he wrote to Joseph Chamberlain in November 1900, “with the one great exception so eloquently described by Captain Mahan, Vol. II, page 118 (I know the place by heart, so can quote it!) that sea power governs the world: ‘Nelson’s far distant storm-beaten ships, upon which the Grand Army never looked, stood between it and the dominion of the world.’”¹⁰ Fisher’s familiarity with Mahan was not restricted to the American author’s most famous phrase. Fisher quoted at length Mahan’s observations on the human element in war, the disposition of navies, and much of the text surrounding the extract cited in his letter to Chamberlain as well, in printed memoranda circulated in the Mediterranean Fleet while he was its commander in chief, from 1899 to 1902.¹¹

Mahan both criticized and praised in print Fisher’s actions as service chief. In 1906 Mahan condemned on financial, technical, strategic, and tactical grounds increases in battleship size, criticism that in effect amounted to an attack on the Admiralty’s decision to build *Dreadnought*, a battleship that was larger, faster, and more powerfully armed than any other.¹² In 1907, on the other hand, Mahan noted that Britain had taken steps that would soon result in the concentration of nearly nine-tenths of its battleship strength in home waters.¹³ Fisher was incensed by the former piece, which lent powerful support to critics of his judgment with respect to capital-ship design;¹⁴ he was gratified, however, by the latter, which shielded him from charges that his agreement to the Liberal government’s substantial reductions in naval expenditure had significantly weakened Britain’s ability to deal with the German battle fleet in the event of war.¹⁵ Mahan’s punditry, in short, worked to Fisher’s political advantage as well as disadvantage. Fisher was still willing to quote Mahan with approval in 1907, even after the appearance of the latter’s public criticism of large battleships.¹⁶

But the shift in the deployment of the Royal Navy was a short-term response to fortuitous circumstances and immediate fiscal incentives, not a realignment of naval strength in conformity with the recommendations of classic naval strategic theory. The Admiralty could not rule out the possibility of a hostile three-power naval coalition of France, Russia, and Germany, capable of threatening Britain in European and extra-European seas simultaneously.¹⁷ Indeed, Fisher’s administration was confronted by this very contingency at the start of his tenure as First Sea Lord. In 1904, relations between Russia and Germany improved dramatically, and there was reason to believe that a British declaration of war

against Russia in support of Japan would provoke France to join Russia in spite of its growing friendship with Britain. Then, in October 1904, the Russian Baltic Fleet fired upon British trawlers in the North Sea in the belief that they were Japanese torpedo craft. This event very nearly brought Britain and Russia to blows, which would almost certainly have precipitated a general European war that would have pitted Britain, aided only by Japan, against three continental great powers.¹⁸ Under such circumstances, an outnumbered Royal Navy would have been charged with the tasks of preventing seaborne invasion of the home terri-

The replacement of general sea control by battleships with local sea denial by submarines and distant sea control by highly mobile battle cruisers reversed the Mahanian formula.

tory while seeing to the security of far-flung trade routes and distant colonies. Fisher, who took office only three days after the North Sea incident, seems to have been confident of the Royal Navy's

ability to do both jobs.¹⁹ Within four years, however, the combination of deep cuts in naval spending imposed by a Liberal government bent on economy and social reform, a sharp increase in German naval construction, and signs of a Russian naval recovery had created the prospect in the not too distant future of a Royal Navy that would be incapable of defending the center and the periphery simultaneously against a hostile combination of European fleets.

But although the fiscal situation was unfavorable and the state of international affairs uncertain, Fisher believed that strategic deliverance might soon be at hand in the form of radical technological change. In 1908, the first battle cruisers—vessels with the heavy armament of a battleship but the high speed and long endurance of a cruiser—demonstrated that they could steam great distances at high speed without breakdown. In the same year, the Royal Navy received its first submarine capable of operating effectively for long periods of time. These events were of significance to Fisher, because in his mind battle cruisers and submarines were going to be the basis of a fundamental change in the British approach to imperial defense. Fisher was convinced that in the restricted seas surrounding the British Isles submarines deployed in large numbers would be capable of acting as a barrier to invasion, because they would be capable of inflicting heavy losses upon even heavily escorted convoys of troopships. This form of operations was known as “flotilla defense.” On open seas or in distant waters around colonial territory, where submarines could not be concentrated in large numbers in good time, Fisher counted upon battle cruiser squadrons deployed by wireless instructions from the Admiralty to deal with enemy cruisers or battleships.

The effectiveness of such a centralized system of command and control depended upon information collected and analyzed by a sophisticated intelligence

and communications organization known as the “War Room System.” British battle cruisers were to be capable of defeating foreign battleships because the former would be equipped with a new kind of fire control system that would enable them to hit their opponents before they could be hit in return, which supposedly would make their lack of heavy armor inconsequential. The replacement of general sea control by battleships with local sea denial by submarines and distant sea control by highly mobile battle cruisers reversed the Mahanian formula for maintaining British naval security at home and abroad when numbers of capital ships were insufficient to be able to deploy superior force everywhere: surface heavy units were to be concentrated on the periphery rather than at the center.²⁰

In theory, a force of submarines that was strong enough to prevent the invasion of Britain would cost much less than a large fleet of battleships and supporting warships capable of accomplishing the same task. The great attraction of Fisher’s vision, therefore, was that it offered an alternative to both the strategy of fielding surface fleets that were more powerful than those of an enemy coalition in all seas, which was fiscally out of reach, and the strategy of concentrating the surface fleet in home waters, which exposed maritime lines of communication to disruption and overseas territories to seizure. Fisher was captivated by enthusiasm for the potentially transformative effects of new technology, but the adoption of his vision depended to a great extent upon fiscal and strategic necessity forcing the hand of naval policy. In the event, however, neither factor played out as Fisher had anticipated. In 1909, fear of German naval expansion compelled the Liberal government to authorize an enormous increase in capital-ship building. When units ordered by the Pacific dominions were added to the British total, the effect was a program that was five times larger than the previous year. To pay for a larger navy and an ambitious scheme of social reform, the government implemented changes in taxation that in combination with an economic upturn increased revenue substantially. Over the next three years, capital-ship programs were smaller than in 1909 but still more than twice the size of 1908. This surge of new construction was enough to make credible plans to maintain powerful fleets both at home and abroad in the event of war.

The fiscal viability of building large armored ships in the numbers required to implement a strategy of global numerical superiority weakened the case for the replacement of the battleship by a combination of battle cruisers and submarines. In addition, the delays in the development of gunnery instruments that were supposed to give the Royal Navy a monopoly on long-range hitting undercut the argument that British battle cruisers would be able to defeat enemy battleships in spite of their lack of heavy armor. This factor may have contributed to the Admiralty’s rejection of Fisher’s call for all the capital ships of the 1909 program to

be battle cruisers. As it turned out, only four of the big ships ordered were battle cruisers, with the balance of six being battleships. By this time, Fisher's effectiveness as First Sea Lord had been compromised by political conflict and controversy. He resigned as First Sea Lord in early 1910, and the programs of that year and 1911 contained only one battle cruiser as opposed to four battleships. In October 1911, however, Winston Churchill became First Lord of the Admiralty (that is, the civilian superior of the First Sea Lord, a naval officer). Fisher had impressed Churchill in 1907, at which time he seems to have explained his ideas about battle cruisers and submarines.²¹ The new First Lord began an intense correspondence with Fisher upon assuming office, and for several months the retired admiral had good reason to believe that his radical vision was upon the brink of implementation. By the end of 1911, Fisher was convinced that Churchill had been persuaded to suspend the construction of battleships in favor of battle cruisers in the forthcoming year and to adopt his proposals for building submarines in large numbers.

Fisher's apparent capture of Churchill was the basis for what may have been an explicit dismissal of the relevance of Mahanian thought to British naval strategy. "I am in continuous and very close correspondence with Winston," Fisher wrote to Gerard Fiennes, a journalist, on 8 February 1912, "so I am precluded from saying all that I desire, but so far every step he contemplates is good, *and he is brave, which is everything! Napoleonic in audacity, Cromwellian in thoroughness.*"²² Although Churchill's ability to act was restricted by the opposition of his more cautious Admiralty advisers, Fisher was confident that submarines "have made our supremacy more supreme than ever."²³ Here Fisher apparently—but arguably only apparently—meant something other than flotilla defense. By 1912, the fact that the latest British submarines had much longer operating ranges than their predecessors had given him grounds to savor the possibility of sending such vessels to distant seas to protect colonies or other strategically important territory. In his letter to Fiennes, Mahan was "an extinct volcano," because "our new submarines with over 6,000 miles radius of action, two 12-pdrs. [pounders], and Whitehead torpedoes on the broadside, and seakeeping for over two months, unattended and unfueled and self-sustaining, have woken up vast dormant possibilities."²⁴ Fisher did not go on to discuss the ability of submarines to prevent an invasion of Britain, which had been a major subject of his discussions with Churchill.²⁵ Disclosing the First Lord's agreement to flotilla defense to even a trusted journalist, however, would have been unwise, if not foolhardy, to say nothing of illegal. Speculation about a future possibility from which certain inferences about flotilla defense might be drawn, on the other hand, offered at least a fig leaf of discretion. Fisher's opening caveat to his

correspondent was probably a warning that his approach to the submarine question was not exactly what it seemed.

In the short term, Fisher was to be disappointed. Royal Navy submarine procurement was disrupted by disagreements within the Admiralty over design and manufacturing. Churchill reconsidered his promise to build only battle cruisers and in the end compromised by agreeing to the construction of higher-speed battleships that were still considerably slower and much more expensive than the kind of warship called for by Fisher. Also, British efforts to develop a naval long-range gunnery system that was significantly superior to that of any foreign power finally collapsed in 1912, which destroyed the technical premises of Fisher's tactical concept of the battle cruiser.²⁶ In the longer term, however, adoption of the flotilla defense component of Fisher's radical strategy was favored by two factors. In the first place, the construction of dreadnought battleships by potentially hostile naval powers in the Mediterranean meant that Britain could no longer count upon using its older battleships in that area. Replacing them with dreadnoughts, however, would require increases in new construction and much higher manning and maintenance costs that Britain could not afford. In the second place, fleet maneuvers revealed that submarines were both mechanically reliable and militarily effective, which convinced many senior naval officers of the Royal Navy that flotilla defense of the British Isles was practicable, which in turn would free the surface fleet—albeit made up of battleships rather than battle cruisers—for deployment outside of home waters. For these reasons, the Admiralty in early 1914 made secret arrangements to reduce the construction of battleships and increase the construction of submarines. These actions were expected to reduce naval spending to within the limits demanded by the Treasury. Fisher was recalled to the Admiralty as First Sea Lord in October 1914, not long after the outbreak of war. He immediately increased orders for submarines and, in spite of a cabinet prohibition of large-warship construction, won approval for the construction of five battle cruisers of unprecedented speed and gun power.²⁷

War gave Fisher the opportunity to implement the strategic revolution that he had sought in peace. The strategic circumstances of the hostilities that had begun in August 1914, however, were not those for which Fisher had planned. His great concern—which had also been that of Mahan in the last chapter of *The Influence of Sea Power upon History*—was a maritime war in which a more or less isolated Britain had to contend with a coalition of continental naval powers possessing naval forces that were numerically equal or even superior to those of the island nation. From the outbreak of a war the main focus of which was on land, Britain enjoyed the support of three great maritime powers—France, Russia, and Japan—against Germany and Austria-Hungary. Britain lacked the large numbers of submarines that were required to implement a sea-denial strategy in

home waters, on account of the prewar disruption of design and production mentioned previously, but it did not need to do so, because allied fleets were strong enough to control distant seas with minimal assistance from the Royal Navy. This meant that Britain was able to concentrate its battle fleet in home waters in overwhelming strength. While the Royal Navy did not have to deal with both major threats in home waters and distant seas with inadequate forces, it did have to be kept strong enough to be ready to meet a German foray in strength at any time, an exhausting task that demanded a large numerical margin of safety.

Fisher was thus alarmed in the spring of 1915 by the dispatch of substantial naval forces to the eastern Mediterranean in support of the assault on the Dardanelles, where losses of ships and men were heavy. In April 1915 he informed Admiral Sir John Jellicoe, commander in chief of the battle fleet in the

Admiral Sir John Fisher's hostility to naval history as a guide to policy is notorious.

North Sea, that he would soon be sending him "a bit from Mahan so apropos" to their mutual concern that strength at the vital strategic

center would be compromised by large detachments to a distant and therefore secondary theater.²⁸ There is no record of Jellicoe actually receiving the Mahanian passage in question, but it is perhaps not a coincidence that he subsequently seems to have read Mahan's *The Influence of Sea Power upon History* for the first time.²⁹

Mahan died shortly after the outbreak of war. Fisher left office in mid-1915 in protest over the Dardanelles and never again exercised control of the Royal Navy. It is ironic that in his last tenure as service chief, his efforts to create the material means of executing a strategy that concentrated heavy ships in distant seas rather than at home were juxtaposed to a commitment to maintaining the integrity of battle fleet concentration in the British Isles, and that his resignation over the latter ended his ability to implement the former. Moreover, although Fisher had championed the submarine as a solution to the problem of British imperial defense, the use of submarines against merchant shipping during the First World War nearly resulted in Britain's defeat. Finally, the advent of a vastly more effective method of commerce raiding in the form of the submarine raised serious doubts about the validity of Mahan's argument that *guerre de course* was incapable of producing decisive success.³⁰ Thus in the end the views of both the master of strategic theory and that of practice were confounded by the course of events.

Mahan and Fisher disagreed about capital-ship design and the utility of history as a guide to formulating naval policy, but the main difference between their ways of thinking about strategy was over the best means of defending the British empire in a maritime war. Both dealt with the same geographical dilemma,

which was the need to dominate home waters and distant seas with a navy that was not large enough to be sufficiently strong in both places at once. Mahan believed that the geographical facts of life in the industrial era were the same as in the age of sail, namely, that distance mattered because it prevented fleets in disparate seas from being mutually supporting; this being the case, Britain had no choice but to keep its main naval strength at home to defend vital interests while minimizing deployments abroad. Fisher, on the other hand, was convinced that the advent of new technology would enable Britain to finesse what had previously seemed to be an unchangeable geographic reality—that distance did not matter in the same way it had, because flotilla defense at home would free all Britain's surface warships for service abroad, where they could be deployed efficiently by the "War Room System" and wireless communications to defend interests that were, if not vital, still extremely important. In short, where Mahan called for concentration at the center, Fisher contended that it could be achieved at the periphery.

This fundamental difference in strategic approach was never debated in public, because important information about critical technological issues—such as naval gunnery, new methods of command and control, and submarine design—was kept secret. Moreover, the highly visible course of Anglo-German naval antagonism and subsequent confrontation in the North Sea during the First World War made it easy to assume that Fisher was concerned with the balance of naval power in home waters to the exclusion of all else, which was not the case. Until the internal policy making of the Admiralty was laid bare by recent scholarship, sound consideration of how Mahan's thinking on geography and strategy as rendered in the last chapter of *The Influence of Sea Power upon History* was affected by technological change in his own time was impossible.³¹ Even then, inattentiveness to detail and analytical nuance in Mahan's text precluded proper handling of the question. Mahan's treatment of the subject of concentration of force was not so much an enunciation of a general principle as an examination of its application to a difficult case. Indeed, the story Mahan told in the finale of his most famous book was a cautionary tale with a counterfactual speculative conclusion, not an account of success caused by right conduct that proved a rule. His main purpose was to engage a strategic quandary, not purvey strategic bromides. The power of his conclusions in his own time was attributable to the fact that the essential characteristics of the historical situation investigated had remained applicable to Britain and could easily be transposed to address America's need to defend two widely separated coastlines.³² In the last chapter of *The Influence of Sea Power upon History*, as in so much of Mahan's other writing, comprehension of his strategic argument depended upon coming to precise terms with his historical narrative.

Mahan's recommendation that Britain concentrate its battle fleet in home waters when confronted by a hostile coalition with naval strength numerically equal to or greater than its own was logically compelling within the realm of operational theory, but from a larger practicable point of view as shaped by politics and economics it was highly unpalatable. The negative consequences of exposing valuable peripheral interests to enemy attack were so great that Fisher resorted to a radical technological alternative, which was supposed to have allowed Britain to concentrate its main strength at the periphery without jeopardizing vital interests at the center. As it turned out, the implementation of

The main event of Mahan's The Influence of Sea Power upon History was the American Revolution. Mahan believed that this conflict was a "purely maritime war."

Fisher's scheme was delayed by technical difficulties and service opposition and made irrelevant by the actual course of events in the short run; over the longer term one of its main components, the submarine, was transformed into

a dire threat to British trade routes. Fisher's recipe for imperial naval defense at a cost that Britain could afford, therefore, while plausible, was difficult to put in place, inappropriate to changed circumstances, and encouraged the development of new technology that became highly dangerous.

Readers interested in the national security dilemmas of the present day may learn something of value from considering certain salient features of the just-told story. First, any attempt to apply classical strategic theory to current defense issues should take into account the specific intent of the author, especially with regard to the historical context of supporting argument and the effects of qualifying and contingent suppositions. Second, the applicability, if not the validity, of even "immutable principles of strategy" may be affected critically by technological change. Third, the complexity, difficulty, and above all, inconstancy of strategic problems are likely to upset plans based upon either adherence to sanctified principles or the creation of technological panaceas.³³ And lastly, it is in the nature of things that in the real world, even the best efforts of the best may be tried and found wanting.

NOTES

An earlier version of this article was prepared for a conference, "Explorations in Strategy, Geography, and Technology," held at the Naval War College in March 2001.

1. See Jon Tetsuro Sumida, *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered* (Washington, D.C.: Woodrow Wilson Center

- Press/Johns Hopkins Univ. Press, 1997); "Alfred Thayer Mahan, Geopolitician," in *Geopolitics, Geography and Strategy*, ed. Colin S. Gray and Geoffrey Sloan (London: Frank Cass, 1999); and "New Insights from Old Books: The Case of Alfred Thayer Mahan," *Naval War College Review* 54, no. 3 (Summer 2001), pp. 100–11.
2. For a typical example of the tendency to state Mahan's position on concentration of force without reference to the historical exposition in *The Influence of Sea Power upon History*, see Arthur J. Marder, *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era 1904–1919* (London: Oxford Univ. Press, 1961–70), vol. 1, p. 9.
 3. Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660–1783* (Boston: Little, Brown, 1890), p. 534.
 4. *Ibid.*, p. 532.
 5. *Ibid.*, p. 529.
 6. This conclusion is supported by a leading modern authority, for which see David Syrett, *The Royal Navy in European Waters during the American Revolutionary War* (Columbia: Univ. of South Carolina Press, 1998), pp. 167–68.
 7. Mahan, *The Influence of Sea Power upon History*, p. 534.
 8. Arthur J. Marder, *Portrait of an Admiral: The Life and Papers of Sir Herbert Richmond* (Cambridge, Mass.: Harvard Univ. Press, 1952), p. 52.
 9. Mahan to Fisher, 21 June 1899, and Mahan to Fisher, 18 July 1899, in Robert Seager II and Doris D. Maguire, eds., *Letters and Papers of Alfred Thayer Mahan* (Annapolis, Md.: Naval Institute Press, 1975), vol. 2, pp. 639–41, 643–45.
 10. Fisher to Chamberlain, 10 November 1900, in Alfred J. Marder, ed., *Fear God and Dread Nought: The Correspondence of Admiral of the Fleet Lord Fisher of Kilverstone* (London: Cape, 1952), vol. 1, p. 165. See also Fisher to James Thursfield, 21 July 1902, in *ibid.*, vol. 1, p. 255; "Notes by Sir John Fisher on New Proposals for the Information of Committee of Seven" (14 May 1904), in P. K. Kemp, ed., *Papers of Sir John Fisher* (London: Navy Records Society, 1960–64), vol. 2, p. 18; and Lord Fisher, *Records* (New York: George H. Doran, 1920), p. 135.
 11. Admiral Sir John Fisher, "Extracts from Confidential Papers: Mediterranean Fleet, 1899–1902," pp. 14, 79–84, 99–100, Fisher Papers, FISR 8/1, F.P. 4702, Roskill Archive Centre, Churchill College, Cambridge. Also excerpts in Lord Fisher, *Records*, pp. 96–98. For the view that Fisher was heavily influenced by Mahan's writing, see Ruddock F. Mackay, *Fisher of Kilverstone* (Oxford, U.K.: Clarendon, 1973), pp. 263–66, 287.
 12. A. T. Mahan, "Retrospect upon the War between Japan and Russia," *National Review* (May 1906), reprinted in Mahan, *Naval Administration and Warfare: Some General Principles with Other Essays* (Boston: Little, Brown, 1908); and "Reflections, Historic and Others, Suggested by the Battle of the Sea of Japan," U.S. Naval Institute *Proceedings* 32 (June 1906), pp. 447–71.
 13. A. T. Mahan, "The True Significance of the Pacific Cruise," *Scientific American*, 7 December 1907, reprinted in Mahan, *Naval Administration and Warfare*, pp. 309–53.
 14. Fisher to Tweedmouth, 5 October 1906, in Marder, ed., *Fear God and Dread Nought*, vol. 2, pp. 96–97.
 15. Marginal note by Fisher on a copy of his letter to King Edward VII, 14 March 1908; Fisher to Arnold White, 30 August 1908; Fisher to Reginald McKenna, 31 March 1909; Fisher to Gerard Fiennes, 14 April 1910; Fisher to Viscount Esher, 15 July 1912; all in Marder, ed., *Fear God and Dread Nought*, vol. 2, pp. 168 note, 192, 240, 322, and 474, respectively. See also Lord Fisher, *Memories* (New York: George H. Doran, 1920), pp. 22–23, 50–51, 187, and 214.
 16. Fisher to John Leyland, 22 September 1907, in Marder, ed., *Fear God and Dread Nought*, vol. 2, p. 136. For Mahan's admiration, in a private letter, of Fisher's reforms as First Sea Lord, see Fisher to Arnold White, 13 November 1909, in *ibid.*, vol. 2, p. 278.
 17. Great Britain, Admiralty, *The Building Programme of the British Navy* (15 February 1906), pp. 8–9 and 37, FISR 8/8, F.P. 4715, Roskill Archive Centre, Churchill College, Cambridge. As late as in 1911, Fisher expressed adamant opposition to the close relations with France, for which see Fisher to J. A. Spender, 25 October 1911, in Marder, ed., *Fear God and Dread Nought*, vol. 2, p. 398.

- For the uneasy relations of Britain and Russia throughout the period, see Keith Neilson, *Britain and the Last Tsar: British Policy and Russia, 1894–1917* (Oxford, U.K.: Clarendon, 1995).
18. G. W. Monger, *The End of Isolation: British Foreign Policy 1900–1907* (London: Thomas Nelson, 1963), pp. 164–75. See also Fisher to Lady Fisher, 1 November 1904, in Marder, ed., *Fear God and Dread Nought*, vol. 2, p. 47.
 19. Fisher to the Earl of Selborne, 29 October 1904, in Marder, ed., *Fear God and Dread Nought*, vol. 2, p. 46.
 20. See Jon Tetsuro Sumida, *In Defence of Naval Supremacy: Finance, Technology, and British Naval Policy, 1889–1914* (Boston: Unwin Hyman, 1989); Nicholas A. Lambert, *Sir John Fisher's Naval Revolution* (Columbia: Univ. of South Carolina Press, 1999), and "Strategic Command and Control for Maneuver Warfare: Creation of the Royal Navy's 'War Room' System, 1905–1915," *Journal of Military History* 69 (April 2005), pp. 361–410.
 21. Jon Sumida, "Churchill and British Sea Power, 1908–29," in *Winston Churchill: Studies in Statesmanship*, ed. R. A. C. Parker (London: Brassey's, 1995), p. 7.
 22. Fisher to Fiennes, 8 February 1912 [emphasis original], in Marder, ed., *Fear God and Dread Nought*, vol. 2, p. 430.
 23. Ibid.
 24. Ibid. For Fiennes's knowledge of the battle-cruiser aspect of Fisher's scheme, see Gerard Fiennes, *The Ocean Empire: Its Dangers and Defence* (London: A. Treherne, 1911).
 25. Lambert, *Fisher's Naval Revolution*, pp. 245–46.
 26. See Jon Tetsuro Sumida, *In Defence of Naval Supremacy*, pp. 220–35, and "A Matter of Timing: The Royal Navy and the Tactics of Decisive Battle, 1912–1916," *Journal of Military History* 67 (January 2003), pp. 85–136.
 27. Lambert, *Fisher's Naval Revolution*, pp. 245–46. See also Paul G. Halpern, *The Mediterranean Naval Situation 1908–1914* (Cambridge, Mass.: Harvard Univ. Press, 1971).
 28. Fisher to Jellicoe, 2 April 1915, in Marder, ed., *Fear God and Dread Nought*, vol. 3, p. 183.
 29. Richmond diary entry, 15 May 1917, in Marder, *Portrait of an Admiral*, p. 251.
 30. Mahan, *Influence of Sea Power upon History*, pp. 539–40.
 31. See Sumida, *In Defence of Naval Supremacy*, and Lambert, *Fisher's Naval Revolution*.
 32. Mahan, "The Value of the Pacific Cruise of the United States Fleet," in *Naval Administration and Warfare*, pp. 310, 319–20.
 33. See Jon Tetsuro Sumida, "Pitfalls and Prospects: The Misuses and Uses of Military History and Classical Military Theory in the 'Transformation' Era," in *Rethinking the Principles of War*, ed. Anthony D. McIvor (Annapolis, Md.: Naval Institute Press, 2005), pp. 127–40.

THE ATTACK AT TARANTO

Tactical Success, Operational Failure

Lieutenant Colonel Angelo N. Caravaggio, Canadian Forces

The lack of a decisive British victory in the Mediterranean theater fundamentally affected British maritime strategy throughout the Second World War. The Royal Italian Navy, or Regia Marina Italiana (RMI), exerted a disproportionate influence on British strategy and fleet disposition, because its existence could not be ignored and British operations to eliminate it failed. On 11 November 1940, Admiral Andrew Cunningham, the British commander of naval forces in the Mediterranean, had the opportunity to eliminate the entire complement of battleships from the Italian order of battle, at Taranto. However, questionable decisions in the planning process, combined with Cunningham's decision to launch a considerably reduced strike force, succeeded in only temporarily reducing the Italian battle fleet from six to two battleships. More importantly, the British failed to capitalize on the operational-level opportunities resulting from the success of their attack. Britain held the initiative, but the window of opportunity to decisively shape the conditions in the Mediterranean theatre after Taranto was finite, and it closed with the arrival of the German Fliegercorps X in January 1941.¹

Lieutenant Colonel Caravaggio has been co-chair of Officership Studies at the Canadian Forces College in Toronto since 1999, with responsibilities for courses in the fields of command, leadership, ethics and the profession of arms, and communication and media. He is a graduate of the Canadian Forces' Command and Staff College, has master's degrees in war and defense studies, and is currently working on a doctorate in Canadian military history at Wilfrid Laurier University.

The widely accepted assessment of the outcome of the British attack at Taranto as a decisive victory with strategic implications, then, is wrong.² The failure to exploit the favorable conditions generated by the attack represented a missed opportunity that had significant ramifications for the disposition of British fleet resources across all theaters, theater logistics within the Mediterranean, and ultimately in the execution of the British land campaign in North Africa. The failure

to deliver a decisive blow at Taranto obliged the British to tie up in the Mediterranean naval forces that otherwise could have been deployed to the Atlantic, Indian, or Pacific theaters. The lack of British strategic and operational focus at this critical juncture of the war squandered vital resources and resulted in missed opportunities.³ Consequently, the Italians were allowed to recover from what was seemingly a decisive British victory and, in the following three years, force Britain to commit, and subsequently lose, a sizable portion of its surface fleet to contain the Italian “fleet in being.” By measuring success gained against operational objectives assigned, this article will argue that the British attack at Taranto was a tactical success but one that did not significantly alter the strategic balance in the Mediterranean, because the British failed to capitalize on the operational opportunities resulting from their attack.

STRATEGIC OVERVIEW: BRITAIN

Since the eighteenth century it had been British policy to maintain at least a one-power standard of naval strength (that is, determination to exceed the forces of any other single power) in the Mediterranean. With the opening of the Suez Canal, the Mediterranean became the main artery of imperial sea lines of communication, raising significantly the importance of this region.⁴ In the interwar period, British naval planners were faced with the question not merely of what sort of fleet they needed but also of how to balance commitments and resources in an era of considerable political and technological uncertainty. The decision was made to base much of the British fleet in the Mediterranean, a strategically sound position from which to move either to home waters against the Germans or to the Far East against the Japanese.⁵

The key to the Mediterranean theater was the island fortress of Malta, some sixty miles south of Sicily. The former had been under the British flag since 1800. It supplied a refuge and refueling point for warships and merchant ships midway between Gibraltar and Alexandria, and it served as a forward base for submarine and light surface forces. Initially, Malta was considered indefensible in a Mediterranean war, but this belief changed quickly once hostilities began and Italy failed to invade it. Malta became the focus of British strategy in the Mediterranean.⁶

From the fall of France to May 1943, the Mediterranean was the main theater for Britain and Italy. Prime Minister Winston Churchill believed that the British position in the Mediterranean and the Middle East had to be maintained and strengthened, with seapower as the decisive factor. The operational objectives provided to Cunningham as Commander in Chief, Mediterranean, could be summarized as follows:

- Destruction of the Italian fleet and merchant vessels, and German ships if they appeared
- Support for the army in North Africa or for any expedition it might undertake
- Safe conduct of British and Allied merchant ships through the Mediterranean and Red Sea
- Prevention of enemy attack by sea on Gibraltar, Malta, Cyprus, Egypt, or the Levant coast.⁷

To accomplish these objectives, the British decided to split the theater and establish two fleets. The first, under Cunningham and stationed in Alexandria, was responsible for the eastern Mediterranean as far as the Sicilian narrows, a zone that included Malta. The second, a new fleet called Force H, was established at Gibraltar on 28 June 1940 under Vice Admiral Sir James Somerville. Force H was to operate in the western basin of the Mediterranean and be available for operations in the Atlantic as required. Both fleets reported to the Admiralty in London.⁸

Even with the declaration of war by Italy on 11 June 1940 and the collapse of France on 22 June, the fleet balance in the Mediterranean favored the British. At that time, the British had available in the Mediterranean seven battleships, two carriers, six cruisers, one antiaircraft cruiser, twenty-nine destroyers, and ten submarines. Against this force, the RMI could array two battleships, nineteen cruisers, fifty destroyers, and 115 submarines.⁹ Even though three of their battleships were “unmodernized,” the British held a significant operational advantage, since the Royal Navy could reinforce the Mediterranean as required from other fleets outside the theater.¹⁰

STRATEGIC OVERVIEW: ITALY

Italian strategic planning in the interwar period had precluded war with England. It was assumed that Italy would have to face only France, which at most could count on the support of Greece and Yugoslavia. Even after 1936, there was no reason to believe that war with Britain was imminent.¹¹ However, as Italian lines of communication with their African colonies intersected the important British routes from Gibraltar to the Suez Canal, any conflict in the Mediterranean would draw in the British, to ensure the safety of their strategic lines of communication.¹² The British viewed Italy’s interior position as an advantage; the Italians, however, viewed their geographic position as a disadvantage, seeing themselves essentially locked in the Mediterranean with the British controlling the exits.¹³

After learning of Benito Mussolini's plans for war, Admiral Domenico Cavagnari, the Italian chief of naval staff, sent Mussolini a lengthy memorandum arguing that Italy was not yet prepared for war. Cavagnari made it clear that the Italian navy could not sustain a prolonged war and that Italy did not have the industrial base to replace ship losses in such a war. Italian naval operations had to be planned and conducted with the knowledge that losses could not be made good.¹⁴ Perhaps most critical of all, a concern that would play a major role in the coming campaign, was the fact that the Italians were almost completely dependent for fuel on German stocks. The RMI would begin with oil reserves sufficient to support only nine months of operations.¹⁵

The Italian military lacked well-defined strategic objectives beyond Mussolini's desire for offensive action "at all points in the Mediterranean and outside."¹⁶ Operational directives issued by the Naval High Command (Supermarina) on 29 May 1940 established a defensive posture in both the eastern and western basins, leaving the Sicilian Channel as the principal theater for offensive fleet operations. Operational-level tasks assigned to the RMI included protecting the Italian coastline and the sea lines of communication with North Africa, Albania, and the Aegean. Fleet engagements were to take place only on terms favorable to the Italians.¹⁷

Italian naval doctrine was based on the assumption that convoys and convoy protection would not be required; protecting merchant shipping would not be a primary task except on specific and infrequent occasions. However, by the middle of July 1940 the requirement for a permanent convoy organization was clear; the RMI had to adopt convoy escort tactics, both air and sea, which had not been originally contemplated.¹⁸ A major problem, however, was that the RMI did not have aircraft carriers or its own naval air arm. It had to rely on the air force (the Regia Aeronautica Italiana, or RAI) for air support.

Fault for the lack of aircraft carriers in the RMI has been assigned to both Mussolini and his admirals.¹⁹ Regardless, all Italian military aircraft were placed under the control of the RAI, and all aircraft development as well. The RMI assumed that the air force would take part in maritime operations, but there was no attempt on the part of senior officers or their staffs in either service to discuss how operations would be coordinated. As it was, any air-related mission in support of the fleet and fleet operations had to compete for resources with other operational tasks. The lack of operational-level cooperative arrangements between the RMI and RAI and the complete absence of any clear doctrine for air support of maritime operations significantly hindered the overall effectiveness of these two services.²⁰

The lack of a naval air arm also had an impact on harbor defense, in particular anti-torpedo netting. Since the RAI had no dedicated torpedo bombers or



doctrine for their employment, it did not understand the requirements for defense against such an attack. The navy felt relatively safe having its ships in the forty-foot-deep waters of Taranto Harbor, believing that air-dropped torpedoes could not be effectively launched in waters so shallow. The Italians did not know that the Brit-

ish had overcome the problem of the initial sudden diving of a torpedo released from an airplane. In addition, the RMI grossly overestimated the minimum launch distance from the target required for the arming of a torpedo. Also unknown to the Italians was the fact that a torpedo could now be triggered in two ways: by contact, or by proximity to the magnetic field of a ship's hull, using a device called a duplex pistol.²¹ These factors all influenced Italian defensive planning and created opportunities for exploitation by an enemy.

Anti-torpedo netting was considered the main defense for a ship in harbor against an air-launched torpedo. Italian anti-torpedo netting of 1940 suffered from two problems: the Italians did not have enough of it, and what they had was of an inadequate design. Taranto, for example, required 12,800 meters of anti-torpedo netting, but only 4,200 meters were in the water at the time of the attack.²² The deployed netting was designed to protect against torpedoes armed with contact pistols; it protected only the sides of a battleship, and only to the depth of its maximum draft. Because it did not prevent the passage of a weapon beneath the ship, this netting provided practically no defense against the duplex pistol-armed torpedoes in use by the Swordfish aircraft of the British Fleet Air Arm (FAA). The main component of Italian harbor defense, therefore, was based on flawed assessments derived from incomplete knowledge of torpedo warfare. The conditions at Taranto Harbor on 11 November 1940, then, were ripe for a decisive British victory.

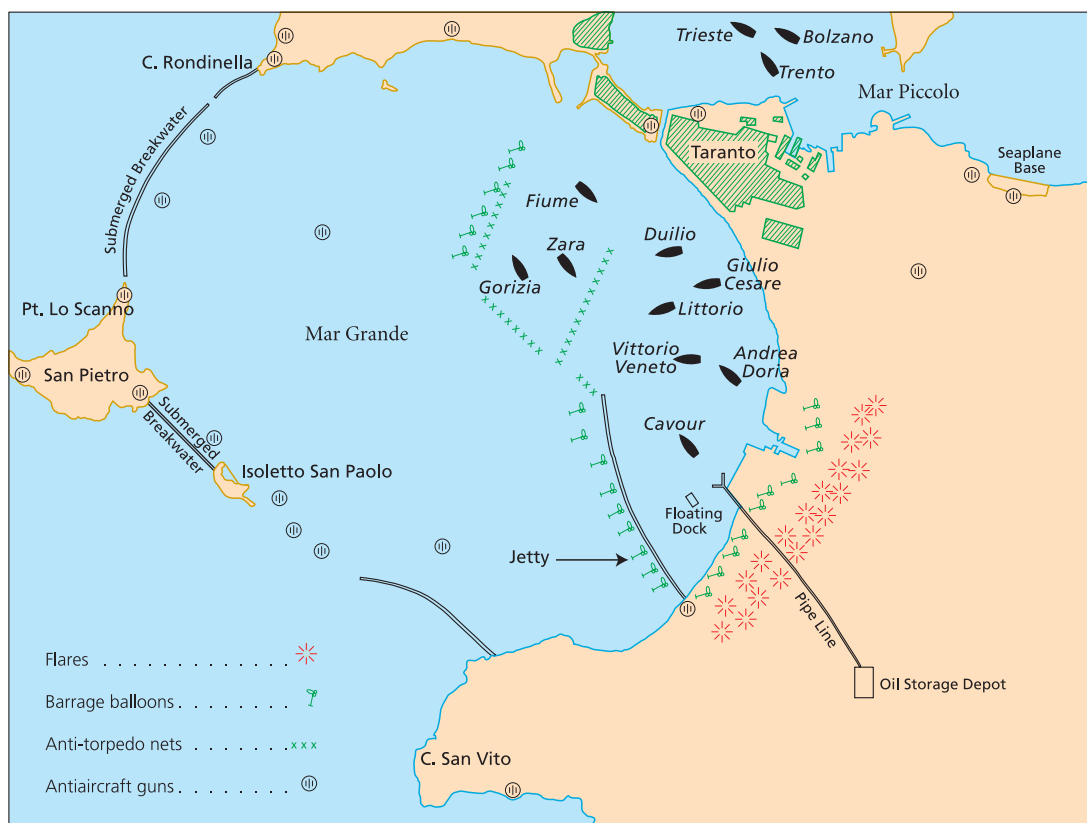
THE PLAN

The naval war in the Mediterranean up to November 1940 involved many of the functional roles of seapower. The first instances of power projection by naval aircraft, which occurred here, presaged the center stage this capability would take in the Pacific, while the attacks on trade and defense of shipping in the Mediterranean exhibited the characteristics of the convoy war in the Atlantic. Aircraft, submarines, and escorts played major roles in the interdiction of seaborne communications.²³ The heavy losses by the opposing navies made it apparent that neither side had a definitive superiority over the other. Everything depended on which side could more successfully exploit the other's weaknesses in order to achieve naval supremacy.²⁴

Cunningham saw his principal tasks as the disruption of Axis convoys to Africa and the protection of British convoys to Malta.²⁵ He felt that in order to accomplish these tasks he had to neutralize or destroy the Italian fleet at its main operating base at Taranto. The only viable option available to him was an attack by carrier-based planes of the Fleet Air Arm. The FAA possessed adequate numbers of only one type of attack aircraft, the Fairey Swordfish, which could carry either bombs or torpedoes.²⁶ Despite its age and slow speed the Swordfish could operate at night, a unique attribute for its time and one that provided the British with the vital capability necessary to launch an operation against Taranto.

Taranto Harbor lay in the Gulf of Taranto some 320 miles from Malta. The inner harbor (Mar Piccolo) was completely landlocked except for a narrow channel, which would admit ships only of cruiser size or smaller. It contained extensive dock facilities, and its small size made surface ships within it virtually safe from attack with torpedoes. The larger outer harbor (Mar Grande), which opened to the west and where capital ships were obliged to moor, was protected from surface attack by long breakwaters.²⁷ Taranto's location was a key element of its value to the Italian navy—it was conveniently close to the British Malta-to-Suez run yet sequestered enough to be easily guarded by land-based planes.

The idea of an airborne torpedo attack at Taranto had its genesis in 1935 after Italy invaded Abyssinia. Admiral Dudley Pound, then commander of the British Mediterranean Fleet, ordered the preparation of a plan for such an attack. The resulting plan sat in a navy safe until 1938, when Captain Arthur L. St. George Lyster arrived to take command of *Glorious*, then the only British carrier in the Mediterranean. Lyster reviewed the plan, updated it, and tested its precepts. After extensive testing and training, Lyster and his senior officers decided that the scheme was plausible, given surprise and luck. In September 1940, Lyster presented the updated plan to Cunningham at a meeting in Alexandria.²⁸



In general, Lyster's plan envisioned a moonlit attack against the harbor, with torpedo-equipped planes striking the battleships moored in the outer harbor while bombers would aim for ships and installations in the inner basin. It envisioned a force of thirty Swordfish in two waves of fifteen aircraft. Each wave would have nine aircraft armed with torpedoes to attack the battleships, five with bombs to dive-bomb the cruisers and the destroyers, and one armed with a combination of bombs and magnesium parachute flares. The plan called for a repeat of the operation the following night with a single strike force of fifteen aircraft comprising six torpedo aircraft, seven dive-bombers, and two flare droppers.²⁹

The torpedo attack was to be made from the west and toward the rising moon. The date for the attack would, therefore, be dependent on the phase of the moon and time of moonrise. Based on the time and distance factors required to achieve surprise—getting the carriers to the launch point under the cover of darkness, launching and recovering aircraft in darkness, and then exiting the area—the planners determined that the carrier force could not be north of a line from Malta to Kithera before dark. The run north had to be made before moonrise and the aircraft launched by 9 PM. A further restriction involved the

speed and endurance restrictions of the aircraft; their return trip could be no greater than four hundred miles. The launch point for the attack was established as forty miles from Kabbo Point, just west of the Greek island of Cephalonia, about 170 miles southeast of Taranto.

Originally, two carriers, *Illustrious* and *Eagle*, were to take part in the attack, and by mid-October both had completed a series of rigorous exercises, including night flying, and were considered ready for the operation. The attack was planned for the night of 21 October but had to be deferred because of a fire in *Illustrious*'s hangar that destroyed or damaged a number of aircraft. The attack was rescheduled for 30 October, but again it had to be delayed, since on that night the moon would not provide the required illumination.³⁰ Any night from 11 to 19 November would offer suitable moonlit conditions; the date was fixed for the 11th, to take advantage of the confusion among the Italians that could be expected from the larger undertaking, known as Operation MB8, of which the Taranto attack, Operation JUDGEMENT, was to be a part.³¹

MB8 involved a series of ten operations to be executed between 4 and 14 November, including:

1. Convoy AN6: from Egypt to the Aegean
2. Convoy MW3: from Egypt to Malta and Souda Bay
3. Operation COAT: passage from Gibraltar to Alexandria of Force F, comprising the battleship *Barham*, the cruisers *Berwick* and *Glasgow*, and three destroyers carrying troops and stores that were to be landed at Malta en route
4. Operations COAT and CRACK: passage of Force H from Gibraltar to the Sicilian Narrows followed by an air attack on Elmas airfield at Cagliari
5. Convoy ME3: four empty merchant ships steaming from Malta to Egypt, in conjunction with the passage of destroyers *Terror* and *Vendetta* from Malta to Souda Bay
6. Convoy AS5: from the Aegean to Egypt
7. Passage of the cruisers *Ajax* and *Sydney* from Port Said to Souda Bay with troops and equipment
8. Transit of the cruiser *Orion* from Port Said to Piraeus and Souda Bay with Royal Air Force stores and personnel
9. JUDGEMENT: passage of the Mediterranean Fleet, Force A, from Alexandria to meet Force F off Gozo, then to carry out a Fleet Air Arm attack on Taranto

10. A raid on the Strait of Otranto by the cruisers *Orion*, *Ajax*, and *Sydney* and two destroyers.³²

Altogether, British forces at sea for this operation amounted to five battleships, two aircraft carriers, ten cruisers, thirty destroyers, and a few auxiliaries.

Unfortunately for the British, *Eagle* had to be withdrawn because of serious defects in its fuel system caused by near misses in an air attack on 11 July. Five of its aircraft were flown off to *Illustrious*; this set the strength of the striking force at twenty-four planes. Further mishaps involving contaminated fuel and other technical difficulties reduced the actual number to twenty-one.³³

Using reconnaissance aircraft from Malta, the RAF kept Taranto under nearly continuous observation until 11:30 PM on 11 November. Photographs taken that day revealed that six Italian battleships and three cruisers, together with some destroyers, were moored on the shoreward side of Taranto's outer harbor, with two more cruisers, twenty-one destroyers, sixteen submarines, nine tankers, and many more smaller craft in the inner harbor.³⁴ These photos also revealed that the torpedo planes would have to fly through a barrier of balloons to reach their dropping positions. By the time the first flight left *Illustrious*, all of the observers on board the Swordfish knew the exact positions of the six battleships in the outer harbor and the latest arrangements of the balloon barrage and net defenses.³⁵ Originally, ninety balloons, tethered by steel cables, had been deployed across the harbor in three rows, but luckily for the British a lack of hydrogen had reduced the number to twenty-seven on the night of the attack: sixteen moored west and north of the ships on the Tarantola Jetty and eleven along the eastern part of the same jetty.

British planners were concerned that searchlights aimed at low angles might dazzle the pilots of the torpedo-armed aircraft. It was decided that a distraction was needed to keep the searchlights directed upward. Originally, this distraction was to have been provided by Wellington bombers from Malta that were to attack the dockyard and ships in Mar Piccolo between 8:30 and 9:15. Inexplicably, this proposal was not adopted.³⁶ Instead the British decided to use some of the attacking Swordfish as dive-bombers to provide the desired distraction. Their confidence in so reducing the strike force to only two-thirds of its original strength may have been based, in part, on experience gained in earlier operations against similar targets.

British experience, technology, and doctrine in attacking ships in harbor had in fact progressed steadily since the outbreak of the war. The event having key influence on the Taranto attack occurred at Dakar on 8 July 1940—a torpedo attack of six Swordfish aircraft from 814 Squadron of the carrier *Hermes* upon the French battleship *Richelieu* in the harbor.³⁷ Three torpedoes were armed with

duplex pistols and three with contact pistols. The duplex torpedoes were set to run at thirty-eight feet, under the ship, and those carrying the contact pistols at twenty-four feet. All six were set to run at forty knots.³⁸ French sources later revealed that *Richelieu* was hit by one torpedo that blew a twenty-five-by-twenty-foot hole in the ship. The explosion fractured the sternpost, distorted the starboard inboard propeller shaft, and flooded three compartments. Repairs to the *Richelieu* would take more than a year to complete.³⁹

The extent of the damage caused by one torpedo at Dakar was not lost on the British, whose analysis of this attack was critical to the success of the Taranto operation. Taking into consideration the shallowness of the water (forty-two feet) at Dakar and the fact that the target had been at anchor, it was determined that the torpedo high-speed setting of forty knots should not have been used. It was known that at forty knots the Mark XII torpedoes were prone to an excessive dive upon striking the water, significantly less so at the twenty-nine-knot setting. In addition, the running depth of the duplex-pistol torpedoes at Dakar was assessed as having been too deep, and thirty-two feet was recommended for future operations. Since the conditions at Taranto Harbor would be similar—ships at anchor in forty feet of water—these findings were the basis for new settings established for Taranto. All torpedoes were to run at twenty-seven knots and at a depth of thirty-three feet, and all were armed with duplex pistols.⁴⁰ British experience and planning had correctly assessed the tactics necessary to achieve the desired effect.

THE ATTACK

The twenty-one Swordfish were launched in two waves: the first, of twelve aircraft, was airborne by 8:40 PM, and the second, with nine aircraft, was away by 9:34. Six of the first wave and four of the second wave carried bombs.⁴¹ Each bomb-armed Swordfish carried six 250-pound bombs, and the flare aircraft each carried four bombs and sixteen flares.⁴² It was the first duty of the latter to lay the flares in a line so as to show up in silhouette the Italian battleships in the outer harbor.⁴³

When the last Swordfish attack was complete, Italy's serviceable battleships had been reduced from six to two—only *Vittorio Veneto* and *Giulio Cesare* had escaped damage—and all of this had been accomplished at the cost of only two Swordfish shot down.⁴⁴ In all, the British launched eleven torpedoes. *Littorio* suffered three torpedo hits, *Duilio* and *Cavour* one each. Several torpedoes became stuck in the muddy bottom of the harbor. Of the sixty bombs dropped, a quarter failed to explode, including the bombs that hit the cruiser *Trento*, the destroyer *Libeccio*, and two fleet auxiliaries. Other bombs caused fires in the dockyard and at the seaplane base, where two aircraft were destroyed. A number of bombs fell

near the Chiappare oil depot; many fell in the dockyard, but only four of these exploded.⁴⁵

The strike aircraft were successfully recovered aboard *Illustrious*. British aircrews were anxious to repeat the operation the next night in accordance with the original plan. However, on the strength of a forecast of bad weather, Cunningham decided against the idea. *Illustrious* and its escorts withdrew undetected and rejoined the fleet.⁴⁶

On 12 November the battleships that could steam—*Giulio Cesare*, *Vittorio Veneto*, and *Andrea Doria*—were transferred to Naples. Meanwhile, salvage operations began on the damaged ones. *Littorio* and *Duilio* could be moved within a few days to shipyards for repairs. *Littorio* was ready for sea by the end of March 1941, and *Duilio* was ready by the middle of May. *Cavour* had to be beached after the torpedo attack. It was refloated in July 1941 and towed to Trieste to be repaired, but the work was not complete by the time of the armistice.⁴⁷

THE CONSENSUS REVISITED

The general consensus of the historical analysis from immediately after the event until now is that the attack was a decisive blow that altered the balance of naval power in the Mediterranean. “In a total flying time of about six hours,” wrote Cunningham, “twenty aircraft had inflicted more damage on the Italian Fleet than was inflicted on the German High Seas Fleet in the daylight action at the battle of Jutland.”⁴⁸ Churchill declared enthusiastically to the British House of Commons, “The result affects decisively the balance of naval power in the Mediterranean and also carries with it reactions upon the naval situation in every quarter of the globe.”⁴⁹ The German naval command mirrored Churchill’s assessment, suggesting that the British would now have complete freedom to reinforce their positions in the Mediterranean and Middle East, transfer ships to the Atlantic, and mount offensive operations that would place the Italian land operations in Egypt in jeopardy.⁵⁰

Cunningham was convinced that the attack greatly increased British freedom of movement in the Mediterranean and strengthened British control over its central area.⁵¹ Operationally, Cunningham felt, the Taranto raid reduced if not altogether eliminated the threat of the Italian fleet’s interfering with British convoys to Greece and Crete. Cunningham also claimed that the success of the raid allowed British battleship strength in the eastern Mediterranean to be reduced. The immediate tactical impact, however, was relief for the British destroyer flotillas, as fewer of them were now required to screen for the smaller battle fleet.⁵²

The current literature generally supports these deductions. The most commonly repeated statement about the effect of the raid at Taranto is that the

attack established British “moral ascendancy” over the RMI.⁵³ James Sadkovich, a historian of the Italian navy, views these assessments as part of an Anglo-American consensus that has determined that the RMI “lacked will-power,” avoided the British fleet, and was generally “inept.”⁵⁴ Sadkovich disagrees with this standard view, pointing out that despite the loss of four battleships, by 28 November the battleships *Vittorio Veneto* and *Giulio Cesare* and their escorts were again at sea attempting to intercept Force H and the Malta-bound convoy it was covering.⁵⁵

While the Italian battle fleet may have remained elusive, the Italian escort forces got on with their primary task of supplying Italian armies in Albania and Libya across the breadth of the Mediterranean, with near-daily sailings of convoys and single ships. In this task they were highly effective. The reality of the operational situation was that the continued existence of Italian battleships, even if they never put to sea, necessitated the retention of British capital ships in a state of readiness at both ends of the Mediterranean.⁵⁶ The attack at Taranto provided the British with a temporary superiority in capital ships but was far from the significant victory proclaimed. Had other options been chosen, however, the outcome could have been decisive.

Options Available to Cunningham

The decisions made in preparing the attack plan at Taranto have not received the critical scrutiny that they deserve. Wayne Hughes, a longtime scholar of fleet tactics, has stated as the great naval maxim, “Attack effectively first.” This motto is the very essence of tactical action for success in naval combat.⁵⁷ The Taranto attack, while generally successful, could have been far more effective. The plan suffered from a number of significant weaknesses, including the lack of a clear intent, questionable targeting and apportionment decisions, and lack of provision for exploiting success. Assessment of the success of the attack hinges on the answer to one key question—why was the attack launched? The answer is not as clear as might be expected.

The information available today offers conflicting evidence as to the true intent of the attackers.⁵⁸ Was the attack envisioned as a hit-and-run-type raid to inflict damage on the Italian fleet, for a temporary tactical advantage, or was it a coordinated effort to eliminate the Italian battleships, for long-term gain? The plan contained components of both types of naval actions. For example, a raid would not normally have included provisions for a follow-up strike the next evening, whereas a plan designed as a sustained effort would have done so. If sustained effort was indeed the intent, then the operation should have been delayed until more forces were available. Those allocated were woefully inadequate, due to the dispersion necessary to achieve simultaneously all the objectives of

Operation MB8. The Taranto operation was too important to conduct as a side-show of an already complicated plan. A deliberate operation against Taranto with all available resources, Royal Navy and Royal Air Force, would have produced, we must presume, the truly devastating results envisioned.

If the intent was to execute a hit-and-run attack, other options available to the British would have increased its effectiveness. The actual target-selection and arming decisions made for the attack reflect a fundamental lack of understanding of targeting.⁵⁹ Arming six of the planes with bombs for use against cruisers and destroyers in the inner harbor at the expense of six more torpedoes for attacks against the battleships diluted striking power. The decision in the planning stages of the attack to limit the number of torpedo planes to six per wave was based on an erroneous assessment that balloons and net obstructions would restrict suitable dropping places in the harbor.⁶⁰ Even though intelligence photos had revealed that the Italian balloon defense was considerably weaker than expected, the arming decisions were not changed. These decisions are indicative of the relative infancy of British strike warfare at the time.

Other decisions in force apportionment highlight the weakness in British planning in other ways. Four battleships (*Cavour*, *Littorio*, *Duilio*, and *Vittorio Veneto*) and the *Gorizia*, a heavy cruiser (that is, with a main battery of eight-inch guns), were designated for torpedo attacks. *Cavour* was targeted by three planes, *Littorio* by five planes, *Duilio* by one, *Vittorio Veneto* by two, and *Gorizia* by one.⁶¹ *Giulio Cesare* and *Andrea Doria* were not targeted either by bombs or torpedoes.⁶² *Vittorio Veneto*, as one of the two most powerful battleships in the Italian navy, should have received a greater relative weight of effort. Damage to both *Vittorio Veneto* and *Littorio* would have created severe problems for the Italians, since there was only a single dry dock in the entire country (in Genoa) capable of taking those new ships, and then only one at a time.⁶³ Arming six more planes with torpedoes would have allowed all the battleships to be targeted with multiple attacks; even this small adjustment in the plan would very likely have proven devastating.

Further, the weight of the attack could have been significantly increased by a second carrier. Admiral Lyster deeply regretted the unavoidable absence of *Eagle*. "Her fine squadrons," he wrote in a private letter, "would have increased the weight of the attack considerably, and I believe would have made it devastating."⁶⁴ In fact, however, Cunningham could have replaced *Eagle* with *Ark Royal*.

Ark Royal had been undergoing a refit for most of the month of October 1940 and had returned to Force H on 6 November.⁶⁵ The ship and its squadrons had gained considerable combat experience. They had participated in the Norwegian campaign and had taken part in the attack on the French navy at Mers-el-Kebir, Algeria, in July and again at Dakar in September. *Ark Royal* could accommodate between sixty and seventy-two aircraft. While some of its experienced

aircrew had been siphoned away during its refit, two of its squadrons, one of Skuas (810 Squadron) and one of Swordfish (818 Squadron), retained their experienced leadership.⁶⁶ The input of these veterans during the planning might have produced critical improvements in such areas as targeting and allocation that would have increased the decisiveness of the attack.

Ark Royal could have been used in two ways. First, its Swordfish squadrons could have replaced those of *Eagle*. This would have required a slight delay while the aircrews were briefed and the ships repositioned. In this case, it would have been necessary to weigh the addition of twenty-six Swordfish against the relative inexperience of the *Ark Royal* squadrons in night flying. The latter risk, however, could have been mitigated by having *Illustrious* aircraft lead the attack waves to the target. Alternatively, all of the *Eagle*'s attack aircraft could have been transferred to *Ark Royal* and flown from that ship, either alone or with augmentation from *Ark Royal*'s air group. In addition, *Ark Royal*'s radar combined with its larger complement of fighters would have provided the task group with the ability to loiter in the central Mediterranean and effectively protect itself while waiting for a decision to reattack.⁶⁷

Another option available to Cunningham was to insist on a supporting attack by RAF Wellington bombers from Malta.⁶⁸ The target would have been Taranto's port facilities, in particular the oil storage tanks; the aim would have been to deny Taranto to the RMI as an operating base. An attack on the harbor facilities by Wellingtons, with their heavy bomb loads, would have allowed the FAA, with its torpedo-armed Swordfish, to concentrate a maximum effort against the battleships. Moreover, the confusion resulting from a coordinated attack could have facilitated the attack by the torpedo planes. That the RAF was capable of conducting this operation was made evident two days later, on 13 November, when ten Wellington bombers from Malta did indeed attack the port facilities at Taranto.⁶⁹

Regardless of the type of attack envisioned, the plan should have dealt with surviving Italian ships, battleships in particular, that attempted to escape to safer harbors after the initial attack. There is no indication that the British ever considered this contingency. The British knew that there were six battleships in Taranto, but the best they could hope to accomplish, as the attack was laid out, was damage to four of them. Thereafter the two undamaged battleships and any other major combatants that could do so would undoubtedly get out of Taranto as quickly as possible. That there were no provisions for this response must be viewed as a critical flaw in the plan. Stationing reconnaissance aircraft and submarines to watch the Straits of Messina and the likely escape routes, with Force H and *Ark Royal*'s strike aircraft ready to respond to sightings, would have afforded the British the opportunity of damaging or even eliminating permanently ships not damaged in the attack itself.

Aside from that, the effort against the remaining Italian capital ships could have been sustained in two other ways: targeting the ships themselves or denying them infrastructure and resources they required. As for the first, the remaining battleships could, for example, have been targeted by Operations MC2 and MC3, which were carried out between 16 and 22 December 1940. These operations had the following elements:

- Attacks on Italian bases in the Dodecanese by aircraft from *Illustrious*
- Bombardment of the port and military objectives at Port Skala, Valona
- Attacks on Italian forces and shipping in the Adriatic
- Attacks with torpedo aircraft on shipping in Port Skala
- Cover for several convoys: MW5A and B (fast and slow convoys from Alexandria to Malta), the *Ulster Prince* (with personnel from Port Said to Crete and Greece), ME5A (from Malta to Alexandria and Port Said), and AS 9 and AN 10 (Aegean convoys).⁷⁰

Here, as at Taranto, British intelligence sources provided the information needed for another attack against the remaining Italian battleships. Reconnaissance pinpointed the disposition of the three Italian battleships—*Giulio Cesare*, *Vittorio Veneto*, and *Andrea Doria*—on 15 December, confirming one back at Taranto and the other two at Naples.⁷¹ British forces were conducting operations in and near these ports, and both RAF bombers from Malta and FAA aircraft from *Ark Royal* and *Illustrious* were available for a strike. However, there is no evidence to indicate that another attack by FAA aircraft was contemplated.

Another possibility would have been to use the growing Royal Air Force resources available at Malta. A comprehensive RAF air campaign against support infrastructure, especially the dry dock in Genoa and oil storage facilities, would have hampered the Italians' ability to repair damaged ships and crippled any remaining operational capability. A comprehensive air campaign against Italian harbors was eventually initiated, in mid-December, but by that time the opportunities offered by the success at Taranto were vanishing.

One of the most important operational advantages that could have been gained from a more aggressive posture after Taranto would have been in operational logistics. Up until this point in the war, the British had been unable to use direct sea routes through the Mediterranean except for the occasional heavily defended convoy. The British success at Taranto did not change this policy. For example, of the twenty-one British supply ships destined for the Middle East that left Britain on 18 December 1940, sixteen sailed round the Cape and only five risked the Mediterranean. The majority of British supply ships destined for

the Middle East continued to be routed around the Cape of Good Hope even though this route involved as much as a four-month round trip for the ships involved.⁷² Routing convoys through Cape Town and Durban increased cycle times and was to blame, in part, for a shortage of mercantile tonnage at this stage of the war.⁷³ The proven scarcity and ineffectiveness of Italian air reconnaissance combined with a reduced surface threat should have enticed the British to send more convoys through the Mediterranean, thereby providing greater flexibility in managing their theater logistics.⁷⁴ The threat from the surviving Italian battleships and an exaggerated fear of Italian airpower continued to influence British naval operational planning inexplicably in the months following Taranto.⁷⁵

Further, there is clear evidence that British fleet resources committed to the Mediterranean after Taranto were desperately needed elsewhere. An Admiralty message to Cunningham on 22 November 1940 stated urgent considerations that demanded redistribution of the fleet. These factors included:

- The appearance of the pocket battleship *Admiral Scheer* in the North Atlantic
- Uncertainty as to whether the *Admiral Scheer* had proceeded south⁷⁶
- The existence of, probably, five disguised enemy surface raiders in the South Atlantic, Indian, and Pacific Oceans, where they were taking a heavy toll of shipping
- The need for escorts for troop convoys carrying reinforcements to the Middle East.⁷⁷

“Under these circumstances,” said the First Sea Lord, “it is considered imperative that raider hunting groups shall be formed without delay.”⁷⁸ For these hunting groups the Admiralty wanted the battleships *Renown* from Force H and *Ramillies*, either *Ark Royal* or *Formidable*, and two cruisers, *Manchester* and *Southampton*. As a contingency, the battleship *Valiant* was to be transferred from the eastern to the western basin. Cunningham responded that he would find it difficult to part with *Valiant*, because of its powerful antiaircraft armament; none of the remaining battleships were similarly armed or had radar. If *Valiant* were to be withdrawn, he would be left with only one battleship, *Warspite*, that could engage the Italians at long range. He offered to surrender instead the eight-inch cruiser *Berwick*. In the end, only the *Ramillies* and *Berwick* were made available for reassignment.

By December the Italians had recovered from the psychological impact of the Taranto attack and had greatly increased their harbor defenses.⁷⁹ *Littorio* and *Duilio* were under repair, and German air units of Fliegerkorps X, specializing in

antiship attacks, were being transferred to the Mediterranean. The balance of power, especially in the air, was rapidly changing back in the Axis's favor.

Measures of Success

In terms of the objectives of holding Malta as an advanced base of operations and keeping the Mediterranean open to maritime traffic, the raid on Taranto had little effect. In a letter to Admiral Pound on 22 September 1940, Cunningham expressed his desire to make Malta a fully operational "strike base" by 1 April 1941, capable of supporting sustained operations by all three services. In particular, Cunningham expected that Malta would have a force of cruisers and destroyers permanently based on the island; safe docking, refit, and repair facilities for warships; a submarine flotilla; airfields from which to operate bomber, reconnaissance, and four fighter squadrons; and raiding forces of troops that could operate from Malta.⁸⁰ According to Cunningham's estimate Malta would need for these approximately four hundred thousand tons of supplies.⁸¹

The aftermath of the Taranto strike presented an excellent opportunity to exploit a weakened Italian position and to bolster the British position in Malta, but the response was anemic. From the attack until the end of December 1940 the British sailed only three convoys totaling fourteen ships to Malta, approximately sixty thousand tons of supplies.⁸² The important fact buried in this statistic is that all of the merchant ships got through safely. Had a greater effort been expended to resupply Malta at this point, the island could have been in a better position to defend itself and to have become a fully operational base for the British early in 1941. Instead, Malta became a vortex that drained away vital resources as the British desperately attempted to sustain the island, its population, and the marginal operational capabilities that had been established there. Axis forces, in contrast, operated with great effect in transporting men and supplies throughout the theater.

Measured against the principal task of disrupting Axis convoys to Africa, the Taranto attack had literally no effect; it increased not at all the British ability to stop deliveries to Libya. In fact, Italian deliveries to Libya increased during the months of October 1940–January 1941 to an average of 49,435 tons per month, up from the 37,204-ton average of the previous four months.⁸³ Losses for the seven-month period of June–December 1940 were less than 2 percent.⁸⁴ The February 1941 to June 1941 statistics are even more telling, with the average monthly Italian deliveries to Libya almost doubling, to 89,563 tons per month.⁸⁵ Effective Italian intelligence enabled the RMI to route convoys to Libya and so avoid British forces. It was not until 21 December 1940 that aircraft, from *Illustrious*, sank the first two ships of an escorted convoy on the Tripoli route.⁸⁶

Even with the significant advantage of advanced warning from ULTRA, the British were unable to disrupt the German buildup in North Africa during the early part of 1941.⁸⁷ In February and March 1941, two hundred thousand tons of Axis shipping was sent from Italian ports to Libya, mainly to Tripoli. During March 1941 eighty-nine Axis merchant vessels set out in twenty-nine south-bound convoys, of which only two were intercepted. Just three ships were lost and a fourth damaged; although nine thousand tons of stores were lost, 92,700 tons arrived safely at Tripoli.⁸⁸ This strong logistical position allowed the German commander, General Erwin Rommel, to start on 31 March 1941 an offensive that would sweep the British Eighth Army back through Libya to the Egyptian frontier by 14 April.

The notable failure of British antishipping forces at this critical juncture in the war has been overshadowed by the British success at Cape Matapan on 28 and 29 March 1941.⁸⁹ The extent of the British frustration at this lack of success was vividly illustrated when on 15 April 1941 Admiral Pound directed Cunningham to take every possible step to prevent supplies from reaching Libya from Italy or by coastwise traffic, even if that resulted in serious loss or damage to His Majesty's ships: "Failure by the navy to concentrate on prevention of such movements [enemy supplies to Libya] to the exclusion of everything not absolutely vital will be considered as having let side down."⁹⁰ Ultimately the German offensive and the Italian requirement to support it were confounded by the RMI's inability to fight offensively, either at the tactical or operational level. In light of that, an antishipping surface force operating out of a fully operational base at Malta, as envisioned by Cunningham, could have been what was needed to interdict Italian convoys to Africa. Even marginal increases in the shipping loss rates in early 1941 could have impacted Rommel's ability to launch and sustain his desert offensive.

Measured against the operational objective of defeating the Italian navy, the Taranto attack was only marginally effective. Evidence of this came immediately after the attack during Operation WHITE, another British attempt to deliver Hurricane fighters to Malta from the carrier *Argus*. Somerville departed Gibraltar on 15 November 1940 with *Renown*, *Ark Royal*, two cruisers, and eight destroyers. The Italians sortied two battleships, three heavy cruisers, and a force of screening destroyers. When it became known that the Italian fleet was at large, Somerville launched the Hurricanes at the extreme limit of their range and then withdrew, resulting in the loss of eight of the twelve aircraft.⁹¹ On 28 November major portions of the RMI, including *Vittorio Veneto* and *Giulio Cesare*, six heavy cruisers, and sixteen destroyers, engaged Force H at Cape Teulada.⁹² The Italian commander, Admiral Inigo Campioni, fearing continued attack by FAA aircraft and lacking air support of his own, decided to avoid a pitched battle and withdrew his forces after

a brief exchange. This engagement established a pattern that would continue through the rest of the war—an Italian determination to engage but only when the tactical situation favored. When important combat factors such as air support, reconnaissance information, or daylight were questionable, the Italians retired to fight another day and protect their “fleet in being.” This pattern has often been used as evidence of an Italian fear of engaging the British. The Italian reality, however, was that they had little to gain from taking chances or pressing unfavorable tactical situations. The British reality was contested sea control until the Italian capitulation in 1943.

By late August 1941, London had assigned top priority to the Mediterranean. Only three of Britain’s battleships were stationed with the Home Fleet, while Gibraltar had one and Alexandria four. The remainder was split between Singapore (three ships) and the Indian Ocean (four ships), the latter conveniently placed for use in either the Middle Sea or the Pacific. Aircraft carrier deployments also favored the Mediterranean, with two each in Alexandria and Gibraltar, one in home waters, and three in the Far East. In short, nine of fifteen British battleships and four of eight carriers were in or near the Mediterranean.⁹³ In the course of 1941, actions in the Mediterranean would cost the Royal Navy a total of one battleship sunk and four badly damaged, one carrier sunk and two damaged, seven cruisers sunk and ten damaged, and sixteen destroyers sunk and twelve damaged—all with little hope of replacement.⁹⁴ Far from granting the strategic freedom claimed by Churchill, the raid on Taranto proved to be a complicated and costly affair for Britain.

After the fall of Greece and Crete there was even less hope of sending ships to other theaters, and by mid-1942 there were no capital ships left in the Mediterranean Fleet to send.⁹⁵ The Mediterranean campaign would eventually cost the British 244 merchant ships and 135 warships, representing 930,673 and 411,935 tons, respectively.⁹⁶ The Axis powers had effectively denied the British the central Mediterranean for a protracted period and exacted a terrible cost in men and ships. The positive results of the British efforts at Taranto could hardly have justified such catastrophic losses. Decisive action by the British in the two months after the attack could have turned the tactical success into a monumental victory, but in the event, it was lacking. This raises serious questions about the conduct of the British campaign in the late 1940–41 time frame. In the context of history, however, the attack at Taranto presents a fascinating insight into both the limitations and the capabilities of the Royal Navy and its Fleet Air Arm.

A PRICELESS OPPORTUNITY

The British attack on the Italian battle fleet at Taranto Harbor has been celebrated for the bravery of the pilots who flew the mission and for the great tactical victory

they achieved. This is just. However, military analysts have further claimed that Taranto changed the balance of naval power in the Mediterranean and established the moral ascendancy of the Royal Navy over the Italian navy. Unfortunately, the facts do not support this rhetoric. Despite reducing the effective strength of the Italian fleet to two battleships, the British had to mount a full-scale operation with their entire Mediterranean fleet in order to enter the central basin. Italian, and later German, land-based aircraft allowed the Italians to continue to dispute the Mediterranean even while the battle fleet was temporarily out of action.

After the attack at Taranto, British naval authorities exhibited a lack of operational insight and so failed in three critical areas: they failed to finish the destruction of the Italian battleships; they failed to eliminate the critical infrastructure support needed to sustain the battle fleet, in particular the dry dock and fuel at Genoa; and they failed to exploit their newly won operational freedom to achieve a theaterwide buildup in logistics by pushing convoys through to Malta and Alexandria. The Royal Navy had the RMI on the ropes after Taranto but failed to deliver the true knockout blow that would have changed the context within which the rest of the war in the Mediterranean was fought. Destruction of the Italian battle fleet in 1940 would have given the British outright sea control in the Mediterranean. Instead, conflict of priorities squandered a priceless opportunity.

An Italian navy without battleships would have meant a significantly lessened threat for the British during the remainder of the Mediterranean campaign. Instead, as it was, the continuing presence of the Italian battle fleet had a disproportionate influence on the balance of naval and military power in the Mediterranean. Admiral Cunningham and his staff struggled to maintain the appropriate fleet mix to counter this potential threat.⁹⁷ Simply containing the Italian capital ships put a huge strain on British resources. Italian battleships could not be discounted, and on more than one occasion their existence led the British to scuttle damaged ships that might have been saved.⁹⁸

Portrayals of the Italian navy as inept have served to mask the impact of ULTRA and excuse the British navy's failure to destroy the Italian fleet, gain control of the Mediterranean, and cut Axis supply lines to Africa before 1943.⁹⁹ A decisive effort against the Italian battleships at Taranto would have destroyed the RMI strategy of a "fleet in being" and allowed the Royal Navy greater flexibility in conducting its campaign against a reduced Italian naval threat. The critical decisions made in the planning and execution of the attack at Taranto highlight the limits of Admiral Cunningham's appreciation of the new interplay between the modern elements of sea and air power. Measuring the success gained against the objectives assigned, the outcome of the British attack at Taranto can be assessed only as a limited tactical victory with limited operational impact.

NOTES

The author expresses his appreciation to Commander Kenneth Hansen of the Canadian Forces College, whose surface warfare expertise was invaluable in this research.

1. The British Chiefs of Staff concluded that with the establishment of German aircraft in Sicily, the Axis had gained temporary control of the center of the Mediterranean. Defence Committee (Operations): Minutes (Cabinet papers, 69/2) 20 January 1941, 9:30 PM. Martin Gilbert, *The Churchill War Papers*, vol. 3, *The Ever-Widening War 1941* (London: W. W. Norton, 2000), p. 101.
2. The main conclusions and assessments of the Taranto attack are almost uniform throughout the current literature. For example, "There can be little doubt that the crippling of half the Italian battlefleet is having, and will continue to have, a marked effect on the course of the war. Without indulging in speculation as to political repercussions, it is already evident that this successful attack has greatly increased our freedom of movement in the Mediterranean and has thus strengthened our control over the central area of this sea" (Michael Simpson, ed., *The Cunningham Papers*, vol. 1, *The Mediterranean Fleet, 1939–1942. Selections from the Private and Official Correspondence of Admiral of the Fleet Viscount Cunningham of Hyndhope, O.M., K.T., G.C.B., D.S.O. and Two Bars* [London: Ashgate, 1999], p. 180). S. W. Roskill wrote, "Thus was British maritime power reasserted in the central basin," and "By the air attack at Taranto and by the two surface ship encounters with the Italian Fleet, Admirals Cunningham and Somerville had established a clear moral ascendancy within the Mediterranean" (*The War at Sea 1939–1945*, vol. 1, *The Defensive* [London: Her Majesty's Stationery Office, 1956], pp. 301 and 419, respectively).

Even Italian assessments have reflected the same general conclusions as above. In 1957, Italian commander Marc Bragadin wrote, "The Taranto attack had temporary but serious consequences in the strategic field because the Italian Navy was left with only two battleships in service" (Marc Antonio Bragadin, *The Italian Navy in World War II* [Annapolis, Md.: Naval Institute Press, 1957], p. 47). In 1966, Italian author Antonio

Trizzino begins a chapter dedicated to Taranto in his book *Navi e poltrone* with (in Cristiano D'Adamo's translation), "The defeat suffered by the Italian Navy without fighting the night of November 11–12, 1940, defined the future of the war between Italy and Great Britain. Taranto was the Italian Trafalgar." In 1976, the Italian historian Arrigo Petacco wrote, "On November 12th, the Italian ships which had survived the torpedo-bombers attack left Taranto to take cover in the ports of Naples and La Spezia. It was a retreat. After five months of illusionary superiority, the Italian Navy was already in a squeeze" (Cristiano D'Adamo, "Operation Judgment: Taranto's Night," www.regiamarina.net).

More recently, in *Air Power and the Royal Navy*, Geoffrey Till states that Taranto transformed the strategic situation in the Mediterranean (*Air Power and the Royal Navy 1914–1945: A Historical Survey* [London: Jane's, 1979], p. 179). In *The Naval War in the Mediterranean, 1940–1943*, Jack Greene and Alessandro Massignani write: "In all, the attack was brilliantly conceived and brilliantly executed" (*The Naval War in the Mediterranean, 1940–1943* [London: Chatham, 2002], p. 179). In a 2004 work, Michael Simpson states that "the crippling of half the Italian battle fleet was of infinite value" and that by December 1940 "well might Cunningham conclude that 'our control of the Mediterranean was close on being re-established'" (*A Life of Admiral of the Fleet Andrew Cunningham: A Twentieth-Century Naval Leader* [London: Frank Cass, 2004], pp. 74–75).

3. Michael Simpson states that the Commanders in Chief, Middle East, found themselves having to deal with impractical, often absurd, schemes proposed by Churchill, aided and abetted by some of his less sensible associates, such as Frederick Lindemann, Churchill's personal assistant, and Lord Keyes, the Director of Combined Operations. Simpson, *A Life of Admiral of the Fleet Andrew Cunningham*, p. 76.
4. John B. Hattendorf, R. J. B. Knight, A. W. H. Pearsall, N. A. M. Rodger, and Geoffrey Till, eds., *British Naval Documents* (London: Scolar, 1993), pp. 779–80.

5. The distance from England to Bombay via the Cape route added four thousand miles to the journey; to Singapore it meant another three thousand miles and to Sydney an extra one thousand. A. J. Smithers, *Taranto 1940: Prelude to Pearl Harbor* (Annapolis, Md.: Naval Institute Press, 1995), p. 61.
6. Correlli Barnett, *Engage the Enemy More Closely: The Royal Navy in the Second World War* (New York: W. W. Norton, 1991), p. 225.
7. G. A. Titterton, *The Royal Navy and the Mediterranean*, vol. 1, *September 1939–October 1940* (London: Whitehall History in association with Frank Cass, 2002), p. 4.
8. Donald Macintyre, *The Naval War against Hitler* (London: B. T. Batsford, 1971), p. 120.
9. Under the original naval plan for the RMI, four new battleships were to have been ready and four older ones were to have been completely modernized by 1942. In June 1940, however, only the battleships *Cavour* and *Cesare* were actually in service. *Littorio*, *Vittorio Veneto*, *Duilio*, and *Andrea Doria* were still being fitted out. The *Roma* needed two more years of work and *Impero* at least three more. The eventual strength of the Italian Navy would consist of six battleships, seven heavy and twelve light cruisers, sixty-one fleet destroyers, and 105 submarines. Bragadin, *The Italian Navy in World War II*, p. 8.
10. James J. Sadkovich, *The Italian Navy in World War II* (Westport, Conn.: Greenwood, 1994), p. 53.
11. This assumption heavily influenced Italian ship design and specifications. Sadkovich, *Italian Navy in World War II*, p. 5.
12. Admiralty Historical Section, *Naval Staff History Second World War: Selected Operations (Mediterranean) 1940, Battle Summaries No. 2, 8, 9, 10* (London: 1957), p. 1.
13. Milan N. Vego, *Naval Strategy and Operations in Narrow Seas*, 2nd ed. (Portland, Ore.: Frank Cass, 2003), p. 45.
14. Far from a responsible response and proof of the navy's interest in avoiding a war, Italian author Alberto Santoni considers it, on the basis of Cavagnari's record of "careful avoided" noninterference in Mussolini's political decisions, a "painful way of shrugging off one's responsibilities and shows up a certain class of officer as vain, unreliable, incapable and opportunist." Alberto Santoni, "Italian Naval Policy from 1930–1941," *Revue Internationale d'Histoire Militaire*, no. 72 (1990), p. 95.
15. Bragadin, *Italian Navy in World War II*, p. 5.
16. Bernard Ireland, *The War in the Mediterranean: 1940–1943* (Barnsley, U.K.: Leo Cooper, 2004), p. 24.
17. Robert Mallett, *The Italian Navy and Fascist Expansionism 1935–1940* (London: Frank Cass, 1998), p. 183.
18. Bragadin, *Italian Navy in World War II*, p. 32.
19. The traditional view in this debate is represented by Brian Sullivan, in his statement that Mussolini established an independent air force, granted it a monopoly on aircraft, ordered the transfer of all naval aviation to the new service, and forbade the navy to construct aircraft carriers ("A Fleet in Being: The Rise and Fall of Italian Sea Power, 1861–1943," *International History Review* 10, no. 1 [February 1988], p. 116). Santoni, on the other hand, builds a convincing position in arguing that this was naval propaganda, unjustly blaming Mussolini and the air force, whereas unedited Italian documents prove that the Italian naval chief of staff did not want any aircraft carriers, for technical and operative reasons (Santoni, "Italian Naval Policy from 1930–1941," p. 92).
20. Titterton, *The Royal Navy and the Mediterranean*, vol. 1, p. xvi.
21. See D'Adamo, "Operation Judgment: Taranto's Night."
22. Bragadin, *Italian Navy in World War II*, pp. 45–46.
23. Sadkovich, *Italian Navy in World War II*, p. 45.
24. Eberhard Weichold, "Axis Naval Policy and Operations in the Mediterranean, 1939 to May 1943," in *Essays by German Officers and Officials on World War II* (microfilm series), roll 7, frame 0003 (Wilmington, Del.: Scholarly Resources, n.d.), p. 6.
25. Sadkovich, *Italian Navy in World War II*, p. 47.
26. The plane had a maximum speed of 125 knots and a ceiling of 10,700 feet. It could carry one 1,610-pound torpedo or three five-hundred-pound bombs. Thomas P. Lowry and John W. P. Wellham, *The Attack on*

- Taranto: Blueprint for Pearl Harbor* (Mechanicsburg, Penna.: Stackpole Books, 1995), p. 22.
27. Admiralty Historical Section, *Naval Staff History Second World War*, p. 42.
 28. Lowry and Wellham, *Attack on Taranto*, 58.
 29. Simpson, ed., *The Cunningham Papers*, p. 188.
 30. Admiralty Historical Section, *Naval Staff History Second World War*, p. 42.
 31. *Ibid.*, p. 43.
 32. Titterton, *Royal Navy and the Mediterranean*, vol. 2, November 1940–December 1941, p. 7.
 33. Jack Sweetman, “Taranto: Baptism of Carrier Warfare,” *Naval Institute Proceedings* 116, no. 11/1053 (November 1990), p. 103.
 34. Smithers, *Taranto 1940*, p. 106.
 35. The Italian squadron at Taranto was preparing to carry out a bombardment of Souda Bay in the middle of November. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 10.
 36. Admiralty Historical Section, *Naval Staff History Second World War*, p. 44.
 37. “If all alternatives are refused you should as soon as possible carry out an attack on *Richelieu* with torpedo aircraft and maintain this attack until it is certain she is sufficiently disabled. Approximately half your torpedoes should have Duplex pistols and half contact pistols and endeavour should be made to obtain a hit in the vicinity of propeller.” Admiralty Historical Section, *Naval Operations Off Dakar: July–September 1940, Battle Summaries No. 3 and 20* (London: 1959), p. 13.
 38. *Ibid.*, p. 19.
 39. *Ibid.*, p. 22.
 40. *Ibid.*
 41. Macintyre, *Naval War against Hitler*, p. 36.
 42. Lowry and Wellham, *Attack on Taranto*, 69.
 43. Admiralty Historical Section, *Naval Staff History Second World War*, pp. 42–43.
 44. Macintyre, *Naval War against Hitler*, p. 38.
 45. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 11.
 46. Oliver Warner, *Cunningham of Hyndhope: Admiral of the Fleet* (London: Camelot, 1967), p. 114.
 47. Bragadin, *Italian Navy in World War II*, 47.
 48. Warner, *Cunningham of Hyndhope*, p. 114.
 49. David A. Thomas, *Malta Convoys 1940–1942: The Struggle at Sea* (Barnsley, U.K.: Leo Cooper, 1999), p. 41.
 50. Greene and Massignani, *Naval War in the Mediterranean*, pp. 107–108.
 51. Simpson, ed., *Cunningham Papers*, vol. 1, p. 180.
 52. Thomas, *Malta Convoys 1940–1942*, pp. 4–42.
 53. Titterton, *Royal Navy and the Mediterranean*, vol. 1, p. xii.
 54. Sadkovich, *Italian Navy in World War II*, 5.
 55. *Ibid.*, p. 94.
 56. S. W. C. Pack, *Cunningham: The Commander* (London: B. T. Batsford, 1974), p. 105.
 57. Wayne Hughes, *Fleet Tactics* (Annapolis, Md.: Naval Institute Press, 1986), p. 40.
 58. Michael Simpson seems to suggest that Taranto was the main objective and all other activities were diversionary. “The diversity of objectives in ‘Judgement’ deceived the enemy as to the chief offensive purpose” (*A Life of Admiral of the Fleet Andrew Cunningham*, p. 73). Roskill seems to support the raid side of the argument with the phrase, “although from the nature of this attack it was not to be expected that the ships would be permanently disabled” (*The War at Sea 1939–1945*, vol. 1, *The Defensive*, p. 301).
 59. Strike warfare is the use of tactical aircraft to strike against land/naval targets in an offensive power-projection role.
 60. Admiralty Historical Section, *Naval Staff History Second World War*, p. 43.
 61. Aircraft E4H of the second wave was targeted against *Gorizia*. Aircraft L5Q of the second wave had a technical problem and had to return to the carrier without firing its torpedo. Admiralty Historical Section, *Naval Staff History Second World War*, p. 90.
 62. The mooring location of these two ships in Taranto harbor would have made targeting with torpedoes difficult but not necessarily impossible. The size of the bombs used by the Swordfish for dive-bombing that night may have only caused marginal damage to the exposed portions of the more heavily armored battleships, but this targeting choice would have

- been more logical since, in the end, one cannot predict or account for luck or a lucky hit.
63. Update of the facilities at Taranto Harbor to service the *Littorio* class of ships was not completed until 1942. Titterton, *Royal Navy and the Mediterranean*, vol. 1, p. xv.
 64. Admiralty Historical Section, *Naval Staff History Second World War*, p. 50 note 4.
 65. William Jameson, *Ark Royal: 1939–1941* (London: Rupert Hart-Davis, 1957), pp. 224–28.
 66. *Ark Royal* had embarked Blackburn Skuas from 800 Squadron; 810, 818, and 820 Squadrons with TSR 1 Swordfish; and 808 Squadron, armed with Fulmar fighters. The commanding officers of 818 and 820 Squadrons were new, having joined the ship during the refit. Jameson, *Ark Royal: 1939–1941*, pp. 224–28.
 67. The aircraft complement on *Ark Royal* was sixty-seventy aircraft. In November 1940 it carried twenty-six Fairey Swordfish and twenty-four Blackburn Skuas. *Illustrious* normally carried between thirty-three and thirty-six aircraft, and *Eagle* seventeen. “Royal Navy and World War 2: Aircraft Carriers,” www.naval-history.net/WW2BritishShipsAircraftCarriers.htm.
 68. The Royal Air Force had already cooperated with the Fleet Air Arm in attacking enemy merchant ships, supply ports, and naval bases, by providing long-range reconnaissance and antisubmarine patrols. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 6.
 69. *Ibid.*, p. 22.
 70. *Ibid.*, p. 36.
 71. *Ibid.*, p. 37.
 72. *Ibid.*, p. 44.
 73. Ireland, *War in the Mediterranean*, p. 52.
 74. Bragadin, *Italian Navy in World War II*, p. 22.
 75. Winston S. Churchill, *Their Finest Hour* (Boston: Houghton Mifflin, 1949), p. 450.
 76. On 25 December, Force H left the Mediterranean for a five-day operation in the Atlantic concerned with the appearance of the *Admiral Hipper* on a raiding expedition. The *Admiral Hipper* on that day attacked convoy WS.5A, consisting of twenty-one ships. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 40.
 77. *Ibid.*, p. 22.
 78. *Ibid.*
 79. On 14, 29, and 30 December 1940, British aircraft mounted raids on Naples, badly damaging one cruiser. On 8 January 1941 another raid damaged the *Vittorio*, *Veneto*, and *Cesare*. *Ibid.*, p. xv.
 80. Message from Commander in Chief, Mediterranean, to Admiralty, 2015/2218/40. Titterton, *Royal Navy and the Mediterranean*, vol. 1, pp. 99–100.
 81. A notional freighter could carry approximately ten thousand tons. Cunningham would have had to steam some forty freighters into Malta to achieve these numbers by April 1941. Simpson, ed., *Cunningham Papers*, vol. 1, p. 151.
 82. Thomas, *Malta Convoys 1940–1942*, p. 197.
 83. Bragadin, *Italian Navy in World War II*, p. 356.
 84. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xiv.
 85. Bragadin, *Italian Navy in World War II*, p. 356.
 86. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xiv.
 87. For a detailed examination of ULTRA and its impact on the war in the Mediterranean, see John Winton, *Ultra at Sea: How Breaking the Nazi Code Affected Allied Naval Strategy during World War II* (New York: William Morrow, 1988).
 88. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xvi.
 89. The Italians lost three heavy cruisers and two destroyers in this action. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xvi.
 90. Winton, *Ultra at Sea*, p. 165.
 91. Greene and Massignani, *Naval War in the Mediterranean*, p. 115.
 92. Also known as the battle of Cape Spartivento.
 93. Sadkovich, *Italian Navy in World War II*, p. 169.
 94. Barnett, *Engage the Enemy More Closely*, p. 377.
 95. Charles W. Koburger, Jr., *Naval Warfare in the Eastern Mediterranean, 1940–1945* (Westport, Conn.: Praeger, 1993), p. 134.

96. For merchant tonnage, Thomas, *Malta Convoys 1940–1942*, p. 196; for warship tonnage, Bragadin, *Italian Navy in World War II*, p. 364.
97. Thomas, *Malta Convoys 1940–1942*, p. 34.
98. Admiralty Historical Section, *Selected Convoys (Mediterranean), 1941–1942: Battle Summaries No. 18 and 32* (London: 1957), p. 102.
99. Sadkovich, *Italian Navy in World War II*, p. 331.

Dr. Alexander Fursenko is a member of the presidium of the Russian Academy of Sciences and the academic secretary of its History Division. A 1951 graduate of Leningrad State University, he earned a postdoctoral degree at the Institute of History of the Russian Academy of Sciences, ultimately becoming a member of the Russian Academy of Sciences, specializing in U.S. history and international relations. Among his twelve books is One Hell of a Gamble: Khrushchev, Castro, and Kennedy, 1958–1964 (coauthored, 1998).

Yuri M. Zhukov is founding director of Bering Research, a Washington, D.C.–based consulting firm. He holds an AB with honors from Brown and is pursuing graduate studies at Georgetown University.

NIGHT SESSION OF THE PRESIDIUM OF THE CENTRAL COMMITTEE, 22–23 OCTOBER 1962

Alexander Fursenko

Translated by Yuri M. Zhukov

On the night of 22 October 1962, Nikita Khrushchev* arranged for all members of the Presidium† to be telephoned and summoned to a meeting. At about seven o'clock at night, Moscow time, all were asked to promptly report to the Kremlin. When the Central Committee's secretary, Frol R. Kozlov, then Khrushchev's right-hand man, was asked by deputy premier Anastas I. Mikoyan the reason for the emergency session, the former replied that "an important announcement is expected from [President John F.] Kennedy regarding Cuba."¹

According to official records, the session in the Kremlin commenced at ten o'clock at night, while it was still midday across the Atlantic.² The agenda before the Presidium was entitled, "On the determination of a position on further steps regarding Cuba and Berlin."³ Although no one yet had a clear understanding of what Kennedy was planning on announcing, Khrushchev had received information indicating that the president's address would be devoted to Cuba.

At a morning meeting with Anatoly F. Dobrynin, the Soviet ambassador in Washington, the resident chief of Soviet military intelligence (the GRU) reported that a large redeployment of American forces was taking place in the southern United States. In its corresponding cable to Moscow, the GRU also reported that "since morning in Washington there has been heightened activity among the most senior government and military authorities," a meeting had

* 1894–1971; premier of the Soviet Union—formally general secretary of the Communist Party (1953–64) and chairman of the Council of Ministers (1958–64).

† The Politburo (Political Bureau, the standing executive group) of the Central Committee of the Communist Party of the Soviet Union was known as the Presidium from 1952 to 1966.

been scheduled between the president and congressional leaders, and at noon it was announced that a televised address by Kennedy would air at seven o'clock in the evening concerning an important matter of U.S. national security.⁴

Three days prior, a leading American observer, Joseph Alsop, had argued in a *New York Herald Tribune* opinion column entitled "What Is More Important?" that the central focus of a future Soviet-American conflict would be Berlin, lambasting those "pre-election campaign orators"* who "shriek of Cuba":

To consider Cuba to be more important than Berlin at such a moment, when in Berlin, in all likelihood, a crisis is headily ripening . . . is the same as making every effort to cure a patient's bursitis while paying no attention to his cancerous tumor. Cuba is sooner like bursitis—a disease that irritates the afflicted and brings him much discomfort. As is done with bursitis, it will likely need to be treated, perhaps even necessitating some radical measures. However, to complicate the critically dangerous Berlin problem by madly insisting on the immediate resolution of the situation in Cuba is not only irresponsible, but simply criminal.⁵

This article was sent to Moscow via a cable the same day, arriving on the desks of Kremlin leaders.

Despite his close ties to the White House, Alsop did not know at the time that a U-2 spy plane had just discovered Soviet missiles in Cuba or that top-secret meetings were being held day and night by the Executive Committee of the National Security Council (ExCom), a body created by President Kennedy for the purpose of developing a response to this Soviet challenge.

Soviet intelligence found itself in the dark as well. Even though the resident KGB official in Washington, A. S. Feklisov, had assured his superiors that he had four reliable informants in the highest echelons of the U.S. government, he received no word from them about this development and consequently was almost completely unable to keep Moscow informed. Neither he nor Dobrynin knew that there were Soviet missiles in Cuba in the first place. This secrecy was an important precondition of Operation ANADYR[†]; by narrowing as much as possible the circle of those who knew about its existence, its planners could more easily prevent inadvertent leaks of information. As a result, when he was invited to the State Department to receive the text of Kennedy's speech at six o'clock in the evening, Dobrynin did not yet know what topic the president would address, Berlin or Cuba. As suggested by their cables, GRU officials did not know either. "The press emphasizes," they reported, "that the reasons for this vigorous government activity are being held in the strictest secrecy. Plans are being discussed about possible new steps with regard to Cuba or Berlin."⁶

* Midterm elections were to be held that November.

† The Soviet code name for the 1962 plan to deploy ballistic missiles, medium-range bombers, and a regiment of mechanized infantry in Cuba.

THE SESSION OPENS: WHAT WILL KENNEDY SAY ON CUBA?

Khrushchev, who knew of neither the photographs taken by the U-2 nor the secret ExCom sessions, understood that a potential leak of information would turn Cuba into an object of acute confrontation, irrespective of Moscow's extensive precautions. "It has become known," he stated in his opening remarks to the session, "that [Kennedy] is preparing some kind of address." The General Secretary cited a report from the Soviet news agency TASS that "in the area of the Caribbean Sea, U.S. naval vessels carrying infantry are massing."⁷ He named no other sources and promptly yielded the floor to the minister of defense, Marshal Rodion Y. Malinovsky, who had been invited to the session to propose options for managing the impending crisis.

Having now received information through military intelligence channels that the topic of Kennedy's speech would be Cuba and having assessed the correlation of forces in that theater, the defense minister concluded that a "blitzkrieg" was impossible. "I don't think [the Americans] would be able to launch something right away," he said. "If an invasion of Cuba will be announced, then another day would have to pass [for the United States] to get ready." Malinovsky did not exclude the possibility that Kennedy's radio address would be a "pre-election trick"; in fact, the defense minister evidently wanted this to be the case. In addition, Malinovsky stressed that Soviet missiles had not been deployed to Cuba for the mission of a military assault on the United States, noting, "We have not striven to place the missiles on an hour's alert." The minister's remarks were followed by those of the General Staff's chief of operations, General Semyon Ivanov, who reported on the capabilities of military installations as envisioned under Operation ANADYR and on the movement of ships carrying military cargoes to Cuba.⁸

Having listened to the military briefings, Khrushchev agreed with his colleagues' conclusions. He remarked that a cable just received from Foreign Minister Andrei Gromyko regarding meetings [in the United States with Secretary of State Dean Rusk] stated that "Kennedy was very cautiously formulating his thoughts on Cuba," while Rusk "had been drinking during the meeting and leading discussions about Berlin, insistently hinting at Cuba." Rusk had declared to Gromyko, "Cuba is to us what Hungary is to you."⁹ Rusk's words were a nearly verbatim repetition of a statement Kennedy had made to Alexei I. Adzhubei, Khrushchev's son-in-law and editor of *Izvestia*, during a meeting in the White House in early 1962. Khrushchev remembered this well and concluded that the coincidence could not have been unintentional.

Expounding his own position, Khrushchev asserted, "The heart of the matter is that we don't want to unleash a war. What we want is to cause a bit of a scare, to deter [U.S.] forces with respect to Cuba."¹⁰ "In their own time, the U.S. did the

same thing, placing a belt of missile bases around our country. That deterred us,” he admitted.¹¹ Khrushchev observed that the difficulty of the situation was that “we have not deployed everything that we wanted [and] didn’t make public the agreement [on mutual assistance with Cuba].” Soviet ships had managed to deliver SS-4 (R-12) missiles, with a two-thousand-kilometer range, but the longer-range SS-5 (R-14) missiles were still en route. In sum, Khrushchev described the state of affairs as “tragic.” He predicted, “They could attack, we would respond. This could spill out into a big war.”¹²

What solution could there be? Khrushchev suggested publicly announcing the USSR’s mutual assistance treaty with Cuba. He asked himself, “How would the U.S. react to this?” In a first scenario, he anticipated that “they could announce a blockade of Cuba.” Second, “[they could] commandeer our ships passing to Cuba.” Third, Washington could announce that the United States “was not even thinking about attacking Cuba.”¹³ Khrushchev now proposed to authorize, in the event of a U.S. invasion, a resort to emergency measures, up to and including the use of tactical nuclear weapons.¹⁴ “All forces are not to use tactical nuclear weapons in the opening phase,” he ordered. “If there is a troop landing—[use] tactical nuclear weapons. As for strategic [weapons]—wait for orders.”¹⁵ He then suggested sending the relevant instructions to the commander of Soviet forces on the island, General Issa A. Pliev. Having shared these thoughts with the Presidium’s members, Khrushchev announced a five- or ten-minute break “so the comrades could think and express their opinions.”¹⁶

PREPARING FOR THE WORST

By the time the meeting was readjourned, the deputy foreign minister, Vasily V. Kuznetsov, had reported that the U.S. embassy in Moscow was requesting a meeting with a Foreign Ministry representative an hour before Kennedy’s address. Additionally, Defense Minister Malinovsky and the chief of the General Staff, Marshal Matvei V. Zakharov, announced that according to their sources—which evidently meant the GRU—ambassadors from NATO and South American countries were being recalled for consultations.

The discussion that followed took place in an increasingly tense environment. The official minutes provide only a glimpse of the session’s actual proceedings. Mikoyan and Mikhail A. Suslov* expressed deep concern about the situation that had developed. Khrushchev suggested that the Presidium discuss the text of the directive to be given to General Pliev. Malinovsky read aloud a draft directive, after which the nuclear question became the center of attention. Mikoyan spoke out pointedly against Malinovsky’s proposed directive, arguing that it was fraught with the risk of war. In response, the defense minister was

* 1902–82, leading party theoretician, a member of the Presidium since 1955.

forced to admit that “if nuclear weapons are to be used, then there are not that many of them on Cuba.” He added that the Cubans themselves could be blamed for a first strike.

Khrushchev protested, “If we do not use nuclear weapons, they could capture Cuba.” Malinovsky replied, “The forces that the U.S. has in the Caribbean won’t capture Cuba.” Khrushchev retorted, “The Americans could fire salvos from their missile carriers, without sending aircraft.” Alexei N. Kosygin* then entered the fracas (but the record of his comments is indecipherable). After Kosygin spoke, Khrushchev declared, “I forbid the use of nuclear weapons against Cuba,” implying that the Americans would not be the first to use nuclear weapons.¹⁷

While he objected to the view presented by defense officials, Mikoyan did not want—and was effectively unable—to challenge Khrushchev. The established tradition of deference to the general secretary prevailed, although the deputy premier disagreed with him. Mikoyan was categorically opposed to the use of any form of nuclear weapons. Khrushchev, meanwhile, believed that any other course of action was impossible. He then proposed that the crisis would be diffused if an announcement were made that “all the [missile] facilities are Cuban, and the Cubans declare that they will respond [to U.S. attack].” Mikoyan emphatically objected to this proposal, saying that if Washington recognizes that “the missiles are under our operational control, the Americans will understand that we won’t be able to go on this adventure, since we know its consequences. . . . And if they find out that the missiles belong to the masters of the island, they will interpret this as a provocation, not ruling out that the Cubans could launch the missiles preemptively.” Khrushchev agreed with this argument: “We’ll leave the missiles as Soviet property, subordinate only to us.”¹⁸

The instructions drafted for Pliev, proposed by Malinovsky and endorsed by Khrushchev, stated that in the event of U.S. attack on the island, it was essential to counter—jointly with the Cubans—the aggressor “with all means.” Mikoyan, noting that “with all means” implied an authorization to use nuclear weapons, raised the question of how one was to interpret the instructions: “So that means [one could respond] with missiles as well . . . [causing the] beginning of a thermo-nuclear war?” Malinovsky, as Mikoyan recalled, “was not able to give an answer, since this ambiguity was an obvious oversight on his part.” In Mikoyan’s words, the defense minister “irresponsibly and unconditionally supported everything,” never deviating from Khrushchev’s positions regarding any form of military response to the Americans.¹⁹

Indeed, if one recalls the insistence with which the defense minister had been seeking a decision in May regarding the deployment of missiles to Cuba, it

* 1904–80; at that time first deputy chairman of the Council of Ministers; Khrushchev’s successor as premier from 1964 until just before his death.

becomes apparent that the head of the military department was particularly hawkish and risk-acceptant in his reasoning, which became a source of conflict with proponents of a softer line—above all Mikoyan, whom Khrushchev regarded as a “Cuba specialist.”

The official record of Central Committee Presidium sessions over Khrushchev’s entire period in office shows that he and Mikoyan had frequent differences of opinion. Khrushchev could not stand objections but occasionally felt compelled to agree with his colleague. On this occasion it became necessary to soften the wording of the instructions. He asked Malinovsky to read “how the final directives to Pliev will sound.”²⁰ The text of the instructions was modified with a caveat that all means were to be used “with the exception of the assets of Statsenko [commander of the missile divisions] and Beloborodov [i.e., nuclear warheads].”

In an uncharacteristic display of caution, having read out the text and assessed the situation, Malinovsky proposed that the final instructions not be written in haste, preferring to wait and see what President Kennedy would say. In essence, the marshal was following the lead of Khrushchev, who had just hypothesized that the United States might either announce a blockade or not take any action at all, meaning that neither a bombardment nor an invasion of Cuba would follow. Malinovsky proposed to wait one hour, until Kennedy’s announcement, and only then proceed with drafting detailed instructions. “Or otherwise,” he said, “[the Americans] would be given a pretext to use nuclear weapons.” All came to agreement on this rationale.

By the end of the night’s discussions, Khrushchev too had softened his tone. He did not want to yield to pressure from Kennedy, who wanted, in his words, “to demonstrate his firmness.” “It could not be ruled out,” he reiterated, “that this is a bluff ahead of the congressional elections.” However, practical considerations ultimately trumped emotions. Khrushchev was concerned about the heavy-lift ship *Aleksandrovsk*, which had been sent to Cuba with a cargo of nuclear warheads, and suggested that caution be exercised. “If we give Pliev the instructions [already approved and now being relayed to the General Staff by General Ivanov], we shouldn’t make an announcement about the agreement [on mutual assistance with Cuba] now, since they may not hold back.” The *Aleksandrovsk*, then in the approaches to Cuba, was given orders “to proceed to the nearest port.” As a result, the vessel was able to evade U.S. pursuit and cross the quarantine line before the blockade was launched, entering the Cuban port of Mariel instead of the original destination of Havana.

At 1:15 in the morning, Kuznetsov delivered the text of Kennedy’s address, which had just been received by the Foreign Ministry. Having read it, Khrushchev concluded, “It seems to me that according to the tone this is not a [declaration

of] war against Cuba, but some kind of ultimatum.” On this point it was decided to close the session and readjourn later in the morning.²¹

Khrushchev spent the rest of the night in the Kremlin. He slept, fully clothed, on the sofa in his office. The session resumed at ten in the morning, after Kennedy’s address had been thoroughly analyzed. If the Kremlin had been dominated by an atmosphere of anxious suspense and alarm prior to the U.S. president’s announcement, this morning the situation was radically changed. The previous buoyancy had returned. The Presidium approved the substance of the Soviet government’s official response to Kennedy’s announcement of a Cuban blockade; the Foreign Ministry drafted the resulting statement’s text, sent it to the press, and broadcast it on the radio.²²

THE SUBMARINE QUESTION

During the day that followed, in a discussion of further actions regarding four Soviet [Foxtrot-class, diesel-powered] submarines sent to the region several weeks before, Defense Minister Malinovsky’s proposals met fresh objections from Mikoyan. Malinovsky was not a member of the Presidium and was present only by invitation. Mikoyan spoke out decisively against the plan to send Soviet submarines to Havana,* preferring to keep them outside Cuban territorial waters, at a distance of a three-day passage. In his opinion, the boats could be discovered rather easily while they were approaching the Cuban coast, inevitably resulting in a confrontation with the U.S. Navy, which would “worsen the situation even more and give rise to a serious conflict.” Nevertheless, Malinovsky, having garnered the support of several members of the Presidium, insisted on sending the submarines to Cuba.²³

During lunch, Mikoyan sat next to Khrushchev and tried to convince him to change his mind. “I thought about it a great deal,” he said, “and believe that it is necessary to return once again to the discussion of the submarine question, because I think [my] suggestion was wrongly rejected.” Khrushchev agreed, and the issue went back on the table. Malinovsky continued to insist aggressively that the submarines could “approach the shores of Cuba undetected.” Mikoyan attempted to convince the members of the Presidium that the defense minister’s suggestion was impossible and dangerous. However, his concerns were brushed off once again. The “Cuba specialist” decided to make one final attempt. He proposed to summon to the evening session the commander in chief of the Soviet Navy, Admiral Sergei G. Gorshkov, with the apparent intention of exploiting the well known friction between the defense minister and the naval commander.

* See Lyle J. Goldstein and Yuri M. Zhukov, “A Tale of Two Fleets: A Russian Perspective on the 1973 Naval Standoff in the Mediterranean,” *Naval War College Review* 57, no. 2 (Spring 2004), esp. pp. 28–29.

Gorshkov, as Mikoyan later remembered, “very clearly showed on the map” that the proposed approaches to Cuba were exceedingly problematic for submarines, since the littoral region was shallow, sinuous, and full of small islands. In order to approach the island, the submarines would need to pass through a narrow strait, which was under radar surveillance by a U.S. naval base located on a nearby island.* In other words, to cross this choke point covertly was impossible. Gorshkov suggested that the submarines be held two or three days from the island, which was precisely what Mikoyan wanted. Mikoyan, revolted by Malinovsky’s incompetence on the issue, later recalled that the defense minister “was unable to raise any objections” to the admiral’s assessment. Gorshkov, meanwhile, “proved to be of very great service [in preventing] the false move the defense minister wanted to make,” enabling the deputy premier ultimately to outmaneuver the defense minister. In this quarrel with a Presidium member—and a skillful politician—Malinovsky was forced to concede.²⁴

At last, Khrushchev authorized sending the four diesel submarines destined for Cuba to a point two days from the island. The full significance of this decision became known only in subsequent decades, when it was revealed that each had been armed with one nuclear-tipped torpedo. Due to numerous technical problems and deficiencies, the diesel boats were forced regularly to the surface, where they were easily—and repeatedly—spotted by U.S. antisubmarine forces.[†] Recent eyewitness accounts indicate that only with great difficulty did the submariners avoid becoming engaged in armed confrontation. On returning to the motherland the participants of the submarine mission were awaited by neither honor nor reward. To the contrary, the commander in chief of the Warsaw Pact forces, Marshal Andrei A. Grechko, pounced on them with the accusation that the boats, by rising to the surface, had allowed themselves to be discovered by the enemy; he declared that the submariners deserved court-martial. Admiral Gorshkov came to their defense, extinguishing the fury of the army leadership. Nevertheless, the identity of the submariners, who had exhibited uncommon endurance and bravery under the difficult circumstances of the Cuban missile crisis and successfully returned the boats to their docks, remained secret for

* Referring generally to the transit of the Bahamas chain. In view of the short detection range of surface radar against a periscope or snorkel, the location of the U.S. bases, and the variety of routes available to the submarines, it is not clear to what Gorshkov might have been referring or why he gave such prominence to U.S. shore-based radar (as opposed to surface and air antisubmarine forces) as a threat. The editors are grateful for the views on this point of Capt. Joseph Bouchard, USN (Ret.).

† See John R. Benedict, “The Unraveling and Revitalization of U.S. Navy Antisubmarine Warfare,” *Naval War College Review* 58, no. 2 (Spring 2005), esp. p. 98. See also Goldstein and Zhukov, and Owen R. Cote, Jr., *The Third Battle: Innovation in the U.S. Navy’s Silent Cold War Struggle with Soviet Submarines*, Newport Paper 16 (Newport, R.I.: Naval War College Press, 2003), chap. 4.

many years. This issue entered the public domain only on the fortieth anniversary of the crisis; subsequently it received much attention in the press.²⁵

WAS A NUCLEAR GREEN LIGHT EVER GIVEN?

The story of the night session of the Presidium of the Central Committee and the questions discussed therein would not be complete without mention of Khrushchev's attitude on the use of nuclear weapons. In the course of the meeting he made his position unmistakably clear. Although Khrushchev repeatedly—both at the time of the crisis and afterward—emphasized that an attack on the United States was never the purpose of deploying missiles to Cuba, under the circumstances of the crisis he did not exclude their use as a means of defense. It is not difficult to imagine what would have been the outcome of such a course of action.

This question became a subject of debate and speculation after Khrushchev's death. At the 1992 Havana conference of participants of the Cuban crisis and scholars who had studied its history, General Anatoly N. Gribkov announced that the commander of Soviet ground forces in Cuba, General Pliev, was given the authority—in the event of an emergency situation brought about by U.S. land invasion and interruption of communication with Moscow—to use tactical nuclear weapons. This announcement became a sensation and was covered in world newspapers. However, Gribkov's revelation also provoked numerous questions at the conference, as well as much doubt. In support of his version of the story, Gribkov subsequently published a General Staff document containing the relevant instructions in his book on Operation ANADYR, coauthored with a U.S. general, William Y. Smith. At the bottom of the document were the signatures of Malinovsky and the chief of the General Staff, Matvei Zakharov.²⁶

The Defense Ministry archives indeed have such an instruction on file, which had to be cosigned by the said individuals to have become official. However, the document was signed by Zakharov alone. Malinovsky did not place his signature on it, since the document had been sanctioned neither by the Presidium of the Central Committee nor personally by Khrushchev. In publishing this document, Gribkov failed to specify that the minister's signature was not on it, admitting to this omission in a Russian publication only a few years later. The general, however, insisted that Pliev had in any case received such authorization in the form of an oral order relayed through Gribkov personally, who arrived in Cuba three days before the beginning of the crisis.

Although the use of tactical nuclear weapons in the event of a U.S. invasion of the island was a possibility, it is highly doubtful that the Party's leadership would have delegated to the military the authority to make that decision. The Soviet system prohibited in principle such an option. Meanwhile, it was absolutely

impossible that Malinovsky, who Gribkov said tasked the latter with orally communicating the orders to Pliev, could have done so without Khrushchev's official approval. For his part, Khrushchev, who at all times covered himself by diffusing accountability through "collective" resolutions, was unlikely to have resorted to such imprudent means. It is thus difficult to imagine that such orders affecting the fate of the world could have been relayed orally or, more importantly, come into force as the result of communication through any one person, however high a position he held. Not only under the Soviet system but in the framework of any system such a practice was unthinkable, whatever eyewitnesses may later claim. Neither archival documents nor the testimonies of the direct participants confirm that such a decision was ever made.

From the moment of Gribkov's arrival in Cuba in 1962 as part of the General Staff's delegation, he was continuously escorted by Pliev's deputy for combat training, Major General Leonid S. Garbuz. The latter has categorically denied that such an order existed or that its very possibility was even a subject of discussion. Garbuz, who had served in missile divisions since 1952, had other ways of knowing what Khrushchev's actual orders were. Prior to being dispatched to Cuba in mid-July 1962, he—along with General Pavel B. Dankevich, another of Pliev's deputies, who was initially to have led the group of Soviet forces in Cuba—was received by Marshal Malinovsky and then Khrushchev himself. "We have decided to slip a hedgehog under America," Khrushchev said, "to help Cuba, so America doesn't swallow her up." But the burden of his remarks, according to Garbuz, was that nuclear weapons were being deployed to Cuba exclusively as a means of "deterrence," not to be launched under any circumstances. Later this formulation was confirmed by written orders from the Ministry of Defense.²⁷

The ambassador to Cuba at the time, Aleksandr I. Alekseev, has been just as categorical on this question. He was the most trusted Kremlin representative on the island and, as a member of the Military Council,* would certainly have known of the existence of such an order. Alekseev recalled that Gribkov's assertion at the 1992 Havana meeting irritated Fidel Castro.[†] The latter was present at all the conference's panel discussions but did not take the floor on this subject, since he was, in Alekseev's words, preoccupied with preventing denigration of the conduct of the Cuban leadership during the crisis.²⁸

All that is known from archival documents and the memoirs of the participants demonstrates that Pliev was unconditionally forbidden to make any

* The Main Military Council comprised the senior leadership of the Defense Ministry, reporting in wartime to the Defense Council, the supreme national-security decision-making organ.

† Castro had taken power in Cuba in 1959.

discretionary decision regarding the use of nuclear weapons. On 27 October 1962, via special cable, Malinovsky confirmed the ban on the use of any such weapon.²⁹

A SOLITARY VOICE OF RESTRAINT

Despite the fortunate fact that Soviet ground commanders in Cuba were not authorized to use tactical nuclear weapons in the event of U.S. aggression, the minutes of the 22–23 October 1962 emergency Presidium session reveal a disturbing picture. A lack of actionable intelligence regarding deliberations within the Kennedy White House left key decision makers in the Kremlin uninformed and compelled to act on the basis of unsubstantiated worst-case scenarios. This made for a particularly volatile atmosphere, given the high profile of hawkish voices—notably Khrushchev’s and Malinovsky’s—in the discussions. The debate over the wording of orders to be given to theater commanders on the use of tactical nuclear weapons is a clear demonstration of this precariousness. This volatility was confirmed further by even more ill-conceived and sometimes outright bizarre suggestions, such as Khrushchev’s proposal to deceive the United States into believing that the missiles were under the Cuban leadership’s command.

Another dangerous element that becomes apparent in the proceedings is an utter lack of understanding of naval matters—in part by Khrushchev but especially by the ground forces, which dominated the Ministry of Defense leadership. Only intervention by Admiral Sergei Gorshkov, the country’s leading maritime strategist and the naval commander in chief, convinced the Presidium not to send the already-imperiled Soviet submarines on what in all likelihood would have become a suicide mission at best and the first salvo of a global nuclear war at worst. While the results of this decision not to send the Foxtrots all the way into Cuba were themselves less than rosy,* the alternative would almost certainly have been perceived by the United States as a provocation, inviting unimaginable consequences.

In assessing this rare look at Soviet decision making during perhaps the most dangerous gamble of the nuclear age, it is hard to overlook the critical role played by Anastas Mikoyan. Through remarkable political maneuvering within a decision-making apparatus that eschewed differences of opinion, Mikoyan managed to calm the famously emotional Khrushchev and discredit the forceful, if obsequious, Malinovsky. Had this powerful, if nearly solitary, voice of restraint been absent from the emergency Presidium session, one would be hard pressed to conceive of a positive outcome to the Cuban missile crisis.

* In that by 20 November all four had been detected by U.S. antisubmarine forces—see Benedict, also Goldstein and Zhukov.

NOTES

This paper was originally commissioned for a conference on the “Cold War at Sea,” held 7–8 May 2004 at the Naval War College in Newport, Rhode Island. This article reflects the personal views of the author and not necessarily those of the government of the Russian Federation. The editors express their appreciation to Mr. Zhukov for his cooperativeness in preparing the translation.

1. Stenograph record of Anastas I. Mikoyan’s memoirs, 19 January 1963. A. I. Mikoyan Archives, Russian State Archives of Socio-Political History.
2. Proceedings of the sixtieth session of the Presidium of the Central Committee of the Communist Party of the Soviet Union, 22–23 October 1962, recorded by A. K. Serov, Russian State Archive of Contemporary History.
3. Proceedings of the sixtieth session of the Presidium of the Central Committee of the Communist Party of the Soviet Union, 22–23 October 1962, recorded by V. N. Malin, Kremlin Archives, Presidium of the Central Committee of the Communist Party of the Soviet Union 1954–1964 (Moscow: 2003), p. 617.
4. Residency of the Main Intelligence Administration Center (GRU), 22 October 1962.
5. *New York Herald Tribune*, 19 October 1962.
6. Residency of the GRU, 22 October 1962.
7. Proceedings, recorded by Serov.
8. Proceedings, recorded by Malin, p. 617.
9. Proceedings, recorded by Serov.
10. Proceedings, recorded by Malin.
11. Proceedings, recorded by Serov.
12. Ibid.
13. Ibid.
14. The decision to send tactical nuclear weapons to Cuba was made by Khrushchev on 7 September 1962, in reaction to an announcement by Kennedy threatening an invasion of Cuba in the event that a Soviet missile base was discovered there.
15. Proceedings, recorded by Malin.
16. Proceedings, recorded by Serov.
17. Mikoyan memoirs.
18. Ibid.
19. Ibid.
20. Proceedings, recorded by Serov.
21. Ibid.
22. See Alexander Fursenko and Timothy Naftali, *One Hell of a Gamble: Khrushchev, Castro, and Kennedy 1958–1964* (New York: W. W. Norton, 1997), pp. 247–48.
23. Proceedings, recorded by Malin. Kremlin Archives, Presidium of the Central Committee of the Communist Party of the Soviet Union 1954–1964 (Moscow: 2003), p. 619. (In the original recording only 22 October 1962 is cited in the sixtieth proceedings. Serov’s proceedings are dated 22–23 October 1962, which corresponds to the substance of the events’ development.) Proceedings, recorded by Serov.
24. Mikoyan memoirs.
25. For a recent eyewitness account, see Ryurik A. Ketov, “The Cuban Crisis as Seen through a Periscope,” *Journal of Strategic Studies* 28, no. 2 (April 2005), pp. 217–31.
26. Anatoli I. Gribkov, General William Y. Smith, and Alfred Friendly, *Operation Anadyr: U.S. and Soviet Generals Recount the Cuban Missile Crisis* (Chicago: Edition Q, 1993), p. 183.
27. L. S. Garbuz, interview, October 1994.
28. A. I. Alekseev, interview, 15 November 1995.
29. Malinovsky, telegram to Pliev, 27 October 1962, Archives of the President of the Russian Federation.

IN MY VIEW

SMALL ARMS POLICY

Sir:

The central thesis of the article entitled “U.S. Policy on Small Arms and Light Weapons,” by Loretta Bondi, which appeared in the Winter 2006 edition of the *Naval War College Review*, is that the U.S. system of export controls on small arms is as good as any, and better than most other countries, but that American moral authority in this area is undermined by its permitting widespread civilian ownership of firearms.

The U.S. commitment to widespread firearms ownership among civilians represents the clear preference of the American people. After passage of the Brady Act in 1993 and the ban on the future sales of military look-alike firearms in 1994, the next election resulted in control of both the House and the Senate shifting to the Republican party for the first time since the Eisenhower administration. Former president Bill Clinton himself credited the efforts of the National Rifle Association as a significant factor in that historical electoral turnaround.

The clear preference of the American electorate for continuing the U.S. tradition of individual armed self-defense has also been expressed in other contexts. Throughout the 1990s and into the early 21st century, increasing numbers of state legislatures passed laws requiring authorities to issue concealed weapons permits to citizens who meet certain objective criteria. State legislatures are also considering “Stand Your Ground” legislation, which recognizes a citizen’s right to remain in any place where he or she may lawfully be and to resist aggression, with deadly force if necessary, without any “duty to retreat” to spare attackers the consequences of their actions. In 2004 Congress let the ban on military look-alike firearms expire, and in 2005 it protected the firearms industry from logic-twisting lawsuits filed by individual plaintiffs and by municipalities that sought to hold firearms manufacturers liable for injuries associated with the use of their products.

If Ms. Bondi wishes to change the clear preference of the American body politic for its tradition of armed self-defense, she is free to do so through the American political system. But Americans who value and wish to retain a tradition of individual armed self-defense need not submit to the emotional blackmail that their tradition is responsible for atrocities in countries with far different political and cultural systems.

DENNIS B. WILSON

SSGN COMMAND AND CONTROL

Sir:

In his article “SSGN: A Transformation Limited by Legacy Command and Control” in the Winter 2006 *Review*, Captain Charles Sykora makes the case for command of the new SSGNs harder than it need be. There are precedents for the kinds of organizational and operational dilemmas that he creates. When nuclear attack submarines were used in direct support of carrier task groups in the late seventies and when ballistic missile submarines began operating in conjunction with other forces during periods of relaxed readiness in the eighties, the potential and actual conflict of missions outlined by Captain Sykora existed, albeit not in wartime conditions. Rather than creating elaborate hierarchies or mission matrices or formal declarations of priorities, these operations moved the decision points that Captain Sykora assigns to the commanding officer to the next higher level of authority. These operations were conducted under the existing tactical rubrics, with two notable exceptions.

Competent and senior submarine officers were collocated with the tactical and strategic operational commanders. These officers were in tactical command of the assigned submarines or were the principal advisers on submarine matters to the officers who had tactical command. The resulting face-to-face dialogue between these two resolved any conflicts of orders or desired activities in mission and tactical employment of the submarines assigned. More importantly, such assignments created a communications link—one that operated without signals—between the submarine warfare officers at each end in their mutual

understanding of the nature and limitations of and processes for submarine operations. This not only prevented orders that could not be executed from being formulated in the first place but also obviated any need for the submarine to report routine matters.

The second aspect that at the time was novel to surface forces but routine in submarine matters involved the communications paths for the directions to and reports from the submarines. These paths, regardless of their origin, pass through the submarine Broadcast Control Authority (BCA) en route to delivery to the destination. The BCA is collocated with the command centers of the submarine forces. This allowed oversight by the submarine force commanders who were the operational commanders for the fleet commanders. This overlay could hinder operations, in the sense that tasks from higher authority might infringe on the tactical commander's initiative, but the arrangement kept all the participants in the chain of command aware of the nature and priority of various missions. Conflicts in direction were avoided, and when they arose they could be resolved quickly.

This command-and-control (C2) schema works well and smoothly where there is an adequate doctrinal base (not necessarily technical knowledge) and a mutual respect for the capabilities of the participants. Good communications are essential, but as demonstrated in many exercises with submarines operating as part of a joint force, this does not translate into the need for instantaneous and direct connectivity.

The model outlined herein applies to other forces and situations. Arrangements much like these are used in clandestine operations where communications must be intermittent and sensors remote from the operators. Key is mutual understanding of the capabilities and limitations of the forces involved. Mutual understanding is easier in organizations with few highly professional senior decision makers—that is, the Navy, Air Force, and Special Forces—than for organizations with diverse components and many junior decision partners, such as the Army. Jointness should not be a mandate for attempts to design universal C2 processes.

W. J. HOLLAND, JR.

Rear Admiral, U.S. Navy (Ret.)

THE NATURE OF WAR

Sir:

I fear that the statement by Rear Admiral Shuford in his recent President's Forum (*Naval War College Review*, Winter 2006, pp. 11–15) that the nature of war is changing is not in step with the way other OPMEP [Officer Professional Military Education Policy] courses have approached this issue regarding the “nature, character, and conduct” of war. I believe it will cause much confusion among Naval War College graduates as they meet with peers who have graduated from other senior service colleges or from National Defense University courses, or the major national security studies programs with which I am familiar.

The OPMEP is pretty clear regarding the way the senior service colleges have approached teaching the subject covering the nature, character, and conduct of war. The “gouge” as reflected by Sun Tzu, Clausewitz, Thucydides, Basil Liddell Hart, Colonel John Boyd, etc., has been that the *nature* of war is *unchanging* but that its *character* (who fights and why) and its *conduct* (how, and where, with what, etc.) are always changing and adapting. War's nature is what makes the ideas of those “old dead guys” still live.

I realize there have been several recent best-sellers proclaiming the “changing nature of war,” but when a learned reader explores the assertions, one concludes the author did not understand the three “faces” of war (nature, character, and conduct) as laid out by the great writers. Please revisit the idea that the nature of war is changing—against the idea that it is really the character and conduct of war that have changed (and will ever do so).

DAVID K. BROWN

*Dynamics Research Corporation,
supporting Commander U.S. Fleet Forces Command
and Navy Warfare Development Command*

REVIEW ESSAY

HOW THE JAPANESE LOST THE BATTLE OF MIDWAY

Thomas Wildenberg

Parshall, Jonathan B., and Anthony P. Tully. *Shattered Sword: The Untold Story of the Battle of Midway*. Washington, D.C.: Potomac Books, 2005. 613pp. \$35.00

Kernan, Alvin B. *The Unknown Battle of Midway: The Destruction of the American Torpedo Squadrons*. New Haven, Conn.: Yale Univ. Press, 2005. 181pp. \$26.00

Midway was one of the most decisive naval battles of all time. It was a battle that should have been won by the Japanese but wasn't. Future American writers would dub it an incredible or miraculous victory, based on the superiority of the Japanese and the widely held perception before the battle that the Imperial Japanese Navy was invincible. During the six months of war preceding Midway the Japanese carrier fleet rampaged unchecked throughout the Pacific, destroying the U.S. battle line at Pearl Harbor and enabling Japan to seize the Philippines, capture Singapore, and overrun the Dutch East Indies. Since the opening attack on Pearl Harbor, the Japanese had conducted a series of spectacular campaigns and smashing victories that seriously weakened American and Allied naval power in the Pacific. The Japanese navy successfully attacked and damaged a significant portion of the U.S. fleet at Pearl Harbor, obliterated British seapower in

the Pacific, and won an overwhelming victory over the hodgepodge of Allied forces that had been caught in the Java Sea. To most observers it seemed as if the Japanese navy was indestructible. Then came Midway—a battle in which a supposedly weaker American force won a spectacular victory that blunted the Japanese advance in the Pacific. It was the turning point in the

Thomas Wildenberg received the Surface Navy Association's 2005 Literary Award for his article "Midway: Sheer Luck or Better Doctrine?" published in the Winter 2005 issue of the Naval War College Review. His current project is a book on the history of the torpedo in the U.S. Navy.

war against the Japanese empire—the point at which the U. S. Navy took over the strategic initiative, and after which it never looked back.

The battle of Midway was a tragic defeat for Japan and its navy. The Japanese had placed their faith in quality over quantity and had trained and prepared to defeat a numerically superior enemy. Yet, as Mitsuo Fuchida and Masatake Okumiya explained in *Midway: The Battle That Doomed Japan* (Naval Institute Press, 1955), “a stronger Japanese force went down to defeat before a weaker enemy.” How and why this happened is explained in *Shattered Sword*, the first new English-language book on the Japanese side of the story since Fuchida and Okumiya’s *Midway* was published fifty years ago.

Jonathan Parshall and Anthony Tully have produced what will undoubtedly become the definitive work on the Japanese navy at Midway. Although neither is a Japanese linguist, they have acquired an amazing amount of information on Japanese carrier doctrine, the planning that went into the Midway operation, and the specific details of the air operations during the battle. Their narrative is carrier-centric, told in terms of what would have been directly visible or otherwise knowable from the bridges of the Japanese carriers. This is a highly effective technique, one that produces a clearly defined picture of the carrier operations and aerial doctrine employed by the Japanese at Midway.

The book is organized into three sections: “Preliminaries,” in which the origins and “political machinations” that led to the Japanese plan of battle are discussed; “Battle Diary,” a detailed narrative of the battle; and “Reckonings,” a reexamination of the myths surrounding the battle of Midway and an enlightening analysis of why the Japanese lost this historically important battle. Readers familiar with other recognized works on Midway will find a wealth of new information here. Scholars, military buffs, and serious students of the subject will appreciate the detailed, comprehensive battle diary that constitutes the bulk of the work. The text itself is supplemented with numerous maps and well executed diagrams that are extremely useful for interpreting the action. A great deal of additional information on Japanese aircraft, carriers, airmen, and aviation losses at Midway is also given, in the extensive list of appendices.

One of the most delightful aspects of this work is the emphasis that the authors place on the importance of leadership and command. I was particularly impressed by the way they compared and contrasted the personalities and leadership styles of the two main protagonists of the battle: Chester W. Nimitz, the commander in chief of the U.S. Pacific Fleet, and Admiral Yamamoto Isoroku, commander in chief of the Japanese Combined Fleet. Much of the book focuses on the errors committed by Yamamoto in “his schemes aimed at Midway.” Parshall and Tully are right on the money when they state that “a commander’s job is to orchestrate and direct the three major dimensions of combat—space,

time and force.” From their study they conclude that “Yamamoto’s plan [for the Midway Operation] failed to address the concept of space in a flexible manner,” that in “his attempt to be ‘divinely mysterious,’ he had rendered much of his fleet purposeless through dispersion.”

Despite its formidable strengths, the Japanese navy committed at Midway a series of irretrievable strategic, tactical, and operational mistakes that seem almost inexplicable. This forms the basis for the “unpleasant truth” of the authors’ compelling argument that “despite the Imperial Navy having opened the Pacific war with one of the most daring military feats of all time—the massed carrier attack on Pearl Harbor—neither Yamamoto nor Naval GHQ truly comprehended the strengths and weaknesses of the world-class weapons system [the aircraft carriers of the First Air Fleet] they possessed.” Lastly, scholars will appreciate Parshall and Tully’s efforts to debunk the legion of myths resulting from Midway, the most persistent being that in defeating the Japanese the U. S. Navy miraculously triumphed against overwhelming odds. This mistaken concept, as the authors rightly point out, “has been echoed endlessly in almost every American text on the battle until it has been accepted as holy writ.”

While *Shattered Sword* gets high marks all around, it is not flawless. Historians and academics accustomed to more scholarly writing may find some of the stylistic trappings somewhat disconcerting. The use of contemporary jargon and colloquialisms is, at best, misplaced. Similarly, their decision to pack the endnotes with reams of additional supporting information was unwise; further, the index is so poorly constructed as to be almost unusable. It is deplorable that the publisher, having acquired such an exceptional scholastic achievement, failed to take care of these deficiencies and so spoiled an otherwise superb book.

Unlike *Shattered Sword*, which breaks new ground, *The Unknown Battle of Midway* by Alvin Kernan merely retraces the steps of those who have come before. Kernan, a university professor of the humanities, served in the U.S. Navy during World War II as an enlisted man and was aboard the carrier *Enterprise* during the battle of Midway. The subject of this book, the destruction of U.S. torpedo planes at Midway, is a worthy project, one that warrants further inspection and analysis. If Kernan’s idea is sound, however, his execution leaves much to be desired. Readers of the *Naval War College Review* and other students of naval history will find nothing new here. On the contrary, the book is so full of errors and misconstructions of fact that it only further distorts the reasons behind the tragic slaughter of the U.S. torpedo planes and their aircrews.

Although the author was an aviation ordnanceman, he confuses the 1,949-pound Mark XIII-1 torpedo employed at Midway and the 2,216-pound Mark XIII-10 of 1944. Much of the technical information cited in this book is either outdated, inaccurate, or incorrectly analyzed (e.g., the U.S. Navy did not develop

its early warning radar from the British; U.S. aerial torpedoes did not have magnetic exploders; and the torpedo protection system is not a part of a ship's armor). The author's lack of technical expertise can be quickly discerned, and it frequently leads to errors in Kernan's analysis of the battle.

Missing is any useful analysis of U.S. carrier doctrine or discussion of the command decisions that necessitated a "maximum effort" on the part of each of the U.S. carriers present at Midway. Yes, the destruction of the American torpedo planes was tragic, but as Parshall and Tully have shown in *Shattered Sword*, the courageous attacks by the Navy's torpedo squadrons critically affected the course of this monumental battle.

BOOK REVIEWS

HOW AMERICAN DEMOCRACY CAN THRIVE IN THE WAR ON TERROR

Heymann, Philip B., and Juliette N. Kayyem, eds. *Protecting Liberty in an Age of Terror*. Cambridge, Mass.: MIT Press, 2005. 194pp. \$30

In the midst of a cacophony of charges and countercharges concerning recently revealed warrantless U.S. government wiretaps of American citizens, this compact book strikes a refreshing note—calm, balanced consideration of the tension between security and liberty in the post-9/11 world. The editors, a Harvard Law School professor and an acting executive director for research at Harvard's Kennedy School of Government, convened a group of experts in a variety of professional terrorism-related fields to explore "how American democracy can thrive best" in the war on terror. Over eighteen months, the experts (from both ends of the political spectrum and many with previous U.S. or British government service) developed specific criteria to guide future decisions concerning the law and practice applicable to combating terrorism at home and abroad.

Happily, the book's detailed recommendations for the executive branch and Congress reject extremes in favor of a thoughtful balance between the president's need for extraordinary powers and Congress's duty to provide

oversight. The recommendations cover ten major areas that include coercive interrogations, indefinite detention, targeted killing, intercepting communications of U.S. persons, information collection, and identification of individuals. Any bias in the approach is, as the authors acknowledge, toward accountability, transparency, and accurate reassessment. On the other hand, the recommendations refrain from suggesting guidelines or restrictions on the commander in chief's broad war powers in zones of active combat outside the United States.

This work is particularly useful for readers who are or will be addressing terrorism-related issues within the executive or legislative branches. The recommendations provide a possible path to broad consensus on these contentious topics. Readers ideologically committed to an extreme viewpoint (in favor of either maximum security or maximum liberty) will find much to criticize, while those who seek a balanced approach, though they will also take issue, may find that adopting the moderate viewpoint of the recommendations will

enhance more rapid agreement among the various stakeholders in the government.

The work's one drawback is a lack of detail, in that it reflects a "distillation of views and opinions" based on "honest and difficult discussions" in a series of closed-door meetings. Accordingly, the reader must speculate on the rationale underlying the specifics. Those seeking to implement these recommendations would benefit by a clearer understanding of the viewpoints analyzed and why they were resolved in a particular way. For example: What indicators of reliability were presumed to prohibit the introduction of information obtained through "highly coercive interrogation" techniques in a trial of the informing detainee but to allow the information in the trial of other detainees? What value is served by providing an individual captured in a zone of active combat a hearing before a competent tribunal when there is no doubt as to his/her status as a prisoner of war? What competing legal rationales were considered when concluding that an al-Qa'ida leader located in Yemen was not engaged in "active" combat against the United States?

This criticism is minor, in any event, since executive and congressional leaders must answer these questions for themselves and on behalf of the American public, if the recommendations are implemented. The book's value lies in modulating the shrillness of the discourse and in proposing a reasoned, rational way forward for the ultimate benefit of the nation.

JANE G. DALTON
Charles H. Stockton Professor of International Law
Naval War College



Purkitt, Helen E., and Stephen F. Burgess. *South Africa's Weapons of Mass Destruction*. Bloomington: Indiana Univ. Press, 2005. 322pp. \$24.95

North Korea's prime motive for developing and possessing nuclear weapons is probably regime security. Leader Kim Jong-Il's rationale would be that absent weapons of mass destruction (WMD), the international community would find some way to dismantle a repressive, autocratic regime that is completely out of phase with twenty-first-century norms. Authors Helen Purkitt and Stephen Burgess argue in their analysis of South Africa's weapons of mass destruction programs that in the latter part of the twentieth century the white ruling elite made similar calculations, premised on idiosyncratic political ideology and national emotions as much as on rational neorealist power assessments. South Africa's nuclear, biological, and chemical capabilities (unilaterally abandoned by the mid-1990s, after majority rule was established and Cold War threats had receded) arose from its white leaders' alarm over rising regional threats unleashed by decolonization, détente, and corresponding American timidity vis-à-vis the Soviet Union in Africa, and growing international opposition to apartheid.

The book is analytically sound if somewhat inelegantly written. The authors—Purkitt, a professor of political science at the U.S. Naval Academy, and Burgess, an assistant director of the U.S. Air Force Counterproliferation Center as well as an associate professor at the U.S. Air War College—systematically illuminate South Africa's furtive route to clandestine WMD know-how and arsenals. Steps included exploitation of South Africa's own natural resources

(uranium), dual-use technology, porous arms-control regimes, and technologically advanced states that perceived themselves as comparably besieged (for instance, Israel and Taiwan). Careful not to oversimplify, the authors also note the organizational, personal, and cognitive factors that enforced this effort. Pertinent circumstances included, respectively, the desire of the Defense Ministry and military to maintain maximum control over the national industrial base; the friendship between chemical and biological weapons czar, Dr. Wouter Basson, and Prime Minister P. W. Botha; and the Afrikaners' conception of themselves as "God's chosen people."

Marring the book's narrative flow is an awkward structure whereby overlapping themes are examined discretely. This produces considerable redundancy and, occasionally, the obtuse presentation of old information as new material. More aggressive editing would have remedied the problem, which in any case is ameliorated by an appendix of policy lessons. Despite its faults, however, *South Africa's Weapons of Mass Destruction* embodies an assiduous and authoritative marshaling of facts about one country's secret enterprise in acquiring weapons that, without benefit of hindsight, few might have expected it to covet. Purkitt's and Burgess's work also contrasts the halcyon days of nonproliferation immediately after the Cold War ended—when South Africa was a "trendsetter" for wider disarmament—with the present dysfunction of nonproliferation regimes. South Africa's conversion to a majoritarian democracy facilitated benevolent neorealist behavior. Grimly, the authors note, however, that "today's states that have weapons of mass destruction are not likely to

replicate South Africa's democratic disarmament." Dutifully, they sketch how nonproliferation incentives and measures will have to change in order to stop the spread of WMD. The book, then, has more than just historical relevance; it should be considered a timely as well as an accomplished contribution to the nonproliferation literature.

JONATHAN STEVENSON
Associate Professor of National Security Affairs
U.S. Naval War College



Kaplan, Robert D. *Imperial Grunts: The American Military on the Ground*. New York: Random House, 2005. 421pp. \$27.95

Robert Kaplan's book *Imperial Grunts* is an account of a war journalist cum travel writer visiting U.S. military commands worldwide. Kaplan travels through "barracks and outposts of the American Empire," from Yemen to Colombia, Mongolia, the Philippines, Afghanistan, Iraq, and the Horn of Africa, introducing readers to "imperial grunts" (U.S. Marines and Army troops and the Navy and Air Force personnel who support them) at these forward-deployed locations. His ten previous books include foreign affairs accounts (*Soldiers of God: With Islamic Warriors in Afghanistan and Pakistan*, Vintage, 2001) and travelogues (*Surrender or Starve: Travels in Ethiopia, Sudan, Somalia, and Eritrea*, Vintage, 2003). Kaplan is currently a correspondent for the *Atlantic Monthly*.

Kaplan lauds the personal initiative of midlevel commissioned and noncommissioned officers he meets in his travels, and he champions them as, collectively, a superior source for operational knowledge

and force mentorship. A recurring theme is the failure of a top-heavy bureaucracy of “big military/Army/Navy” that is “organizationally miscast for dealing with twenty-first-century insurgencies,” versus smaller, more efficient Marine, special forces, and civil affairs units. One example is the transformation of “big military” control over the Afghanistan battlefield. In 2001, master sergeants were empowered to call in B-52 airstrikes that arrived within minutes; by 2003, approval of task force concepts of operations required three days of paperwork and senior-officer authorization.

Kaplan holds out the ethnic composition and language skills of U.S. Southern Command personnel as exemplary. He posits that, for the twenty-first century, “indigenous culture must be appreciated before anything can be accomplished with its inhabitants” and that “cultural and historical knowledge of the terrain is more likely than technological wizardry to dilute the so-called fog-of-war.” Kaplan states that in Afghanistan the “American Empire . . . was weakest” because of an absence of linguistic skills among deployed military personnel. “This . . . neglected part of . . . defense ‘transformation’ . . . had nothing to do with the latest weapons systems.”

According to Kaplan, future military operations should optimally leave small footprints. In the Philippines, he observes, Army civil affairs teams, part of the U.S. Army Special Operations Command, functioned like relief charities or nongovernmental organizations—they built schools, dug wells, and provided medical assistance. These personnel “represented the future reality of Special Operations: the Peace Corps with

guns, the final articulation of unconventional war.”

Contrary to media reports of poor military morale due to overdeployment, Kaplan states that “with Army Special Forces and the Marines I had met only two kinds of troops (from 2002–2004): those who were serving in Iraq and Afghanistan, and those who were jealous of those who were” and “those in the Special Operations community whom I had met (in the Philippines) and in eastern Afghanistan were having the time of their lives.”

Imperial Grunts is intended to be the first of several books on “imperial maintenance on the ground, and seeking a rule book for its application.” The strong opinions of the author notwithstanding, those desiring to learn about military personnel deployed worldwide in the war on terror can benefit from reading this account.

ZYGMUNT F. DEMBEK
Lieutenant Colonel, U.S. Army Reserve



Parrish, Thomas. *The Submarine: A History*. New York: Penguin, 2004. 576pp. \$17

In this excellent and rather lengthy book, Thomas Parrish uses detailed vignettes to illustrate how submarines, the men who operated them, and the organizations that produced them changed naval warfare between great powers during the twentieth century. The author does this with a deft hand, providing a wealth of details concerning many notable personalities and technical facts of his arcane subject in a way that both informs and entertains. One has only to read the first three pages, which quickly discuss the short and

tragic life of the Confederate submarine CSS *H. L. Hunley*, to get an accurate feel for how the rest of the book will progress. Parrish maintains this fast pace as he relates the legend of David Bushnell's Revolutionary War submersible vessel, the *Turtle*; Robert Fulton's submarine efforts; and those of other early inventors. His discussions on World War I are more substantial, and his penchant for detail emerges in his short biographies of some of the major figures of the time. He ties their careers to submarine technology, not only describing Admiral Alfred von Tirpitz's rise to high command in the German navy but quoting the admiral's observation that his success was bound to the development of the torpedo. Parrish then traces the development of both the German and British fleets and the grand strategies that led to their acquisition. For the next ten pages, we are told the riveting story of how Lieutenant Otto Weddigen, commanding the six-hundred-ton submarine *U-9*, with a crew of twenty-six men, sank the British cruisers *Aboukir*, *Cressy*, and *Hogue* with just three torpedoes in less than two hours in the early days of the war. In that battle 1,459 British men died, which at the time represented the worst butcher's bill, and arguably the most stunning defeat, in the history of the Royal Navy. As Parrish later observes, the century of the submarine had arrived.

Parrish treats his discussion of World War II equally well. He relays, among other things, Admiral Karl Dönitz's rise, *U-47* commander Lieutenant Günter Prien's attack in Scapa Flow, the U.S. Navy's participation in convoy escort duty before the official declaration of war, and the second Battle of the Atlantic. He discusses the parallel Allied

and German code-breaking efforts and the action/reaction technology cycle between submarines and those who hunted them. Readers with an interest in the U.S. submarine force's contributions to victory against Japan will be pleased with the author's treatment of that important campaign and of the major figures involved.

If the book has a weakness, it is that some important points receive scant coverage. All told, nearly four hundred pages of the book discuss the history of diesel-powered submarines, while only eighty-four pages are dedicated to nuclear boats. Yet even here the author does a creditable job in describing the development of American nuclear submarines, evenhandedly discussing the rise, behavior, strengths, and weaknesses of Admiral Hyman Rickover. Oddly, Russian submarines receive little attention, most of it devoted to peacetime losses of the *Komsolomets* (the Mike-class submarine) in 1989 and that of the *Kursk* (an Oscar II) in 2000.

Submarine accidents also present the few stumbling points. Parrish states that all hands were lost when HMS *Thetis* sank in 1939, when in fact three members of the crew and a shipyard worker escaped from the stricken submarine. Similarly, he describes the USS *Scorpion* as "shabby and seedy" and "rickety," citing these alleged characteristics as contributing to its loss. However, these oversights are relatively minor and do not significantly detract from what is otherwise a fine treatment of a complex subject. The book will appeal to the interested layman, naval professional, and, especially, to current and former submariners.

WILLIAM S. MURRAY
U. S. Naval War College



Showalter, Dennis E., ed. *Forging the Shield: Eisenhower and National Security for the 21st Century*. Chicago: Imprint, 2005. 236pp. \$24.95

Dwight D. Eisenhower's greatest achievement as president came in the area of foreign policy and related defense matters. In the making and managing of strategic policy he was a strong, active, and effective leader. This book is an uneven collection of essays devoted to Eisenhower's presidential influence on foreign policy and national security, essays that were presented at a symposium held in January 2005 at the National Defense University.

The lead paper, "Reflections on Eisenhower, the Cold War, and My Father," by Sergei N. Khrushchev, provides an interesting recollection of Nikita Khrushchev's attitude toward Eisenhower and the United States. According to Sergei Khrushchev, a Brown University professor and himself a veteran of the Soviet Strategic Rocket Forces, his father, like many veterans of the "Great Patriotic War," viewed Eisenhower as a former comrade in arms and thus welcomed his election as president. The elder Khrushchev was highly respectful of the danger posed by potential nuclear war and sought only equality in relations with the United States and the Eisenhower administration. Questions emerge as to how much new information Sergei Khrushchev's memoir-analysis reveals, and how much is a son's defense of a father. However, to a large segment of students, Professor Khrushchev's reflections provide an interesting look at the key foreign power's opposing viewpoint during the Eisenhower presidency.

The collection's strongest work is Alan Millet's "Eisenhower and the Korean

War." It was a conflict that Eisenhower inherited when elected and one that he knew he had to end. Millet traces Ike's indirect involvement from the period when he was chief of staff after World War II until his pledge in the 1952 campaign that if elected "I shall go to Korea," a pledge that Eisenhower understood needed rapid redemption.

With considerable insight Millet traces Eisenhower's efforts to end the war and provide a defense policy for the long haul, based on concepts that Ike later set forth in his memoir. These concepts relied on deterrence, stressed the role of nuclear technology, placed heavy reliance on allied land forces around the Soviet periphery, and emphasized economic strength through reduced defense budgets. The outcome was the New Look strategy of the 1950s.

R. Cargill Hall's essay, "Clandestine Victory," is a competent account of the development of increasingly sophisticated aircraft and early satellites tasked with aerial surveillance and of the intelligence they provided, as well as of their influence on decision making. However, the paper deteriorates into an argument for further eye-in-the-sky commitments to counter twenty-first-century terrorism. Hall's argument seems more public relations for an institutional constituency than a reasoned scholarly analysis and conclusion. Terrorism, at its most effective and frightening, depends on surreptitious individual initiatives that in general defy large-scale overhead surveillance.

One area that perhaps could have been developed more explicitly is Eisenhower's role and technique in controlling the defense budgetary process and strategic dialogue within his administration. His principal secretaries of

defense were functionalists, and Eisenhower viewed their primary role as one of keeping the Pentagon programs within the budget, which was important for carrying out his conservative fiscal goals. On strategic matters, Eisenhower dealt directly with the chairman of the Joint Chiefs of Staff and thus usurped an important portion of the secretary of defense's role. He respected his secretaries as businessmen but in effect insisted on being his own secretary of defense.

Thematic throughout this collection is a focus on Asia and Europe. By stressing Eisenhower's response to grand strategy, relations with Moscow, the interrelationship of politico-military-industrial and techno-scientific affairs, and trouble spots in Eastern Europe, the Middle East, and Asia, the book ignores the twenty-first-century challenges posed for contemporary U.S. defense and foreign policy in the Southern Hemisphere—Africa and Latin America.

For the sophisticated and knowledgeable scholar, *Forging the Shield* likely contains little new information, but it will prove valuable to defense policy and military history students needing exposure to the Eisenhower era.

DOUGLAS KINNARD
author of *President Eisenhower
and Strategy Management*



Schencking, J. Charles. *Making Waves: Politics, Propaganda, and the Emergence of the Imperial Japanese Navy, 1868–1922*. Stanford, Calif.: Stanford Univ. Press, 2005. 283pp. \$57.95

Charles Schencking, in charting Japan's creation of the world's third-largest navy by 1922, illuminates the workings

of the Japanese political system and the evolution of both interservice rivalries and civil-military relations in the decades preceding World War II. He bases his history on an impressive reading of Japanese and English-language primary and secondary sources to produce a story with political implications far beyond the history of one service.

When the Meiji reformers took power in 1868, their minimal naval forces were part of their land forces. In 1871, over the objections of the army, the Military Ministry was subdivided into two ministries, army and navy. In order to secure funding to create a modern fleet, the navy soon allied with the Satsuma clans, while clans from Chōshō were already allied with the army. Together these clans brought the Meiji reformers to power. The opening of the Diet in 1890 brought fears among the clans that democracy would erode their power. Therefore, they solidified their ties with the army and navy. Thus highly politicized interservice rivalries were inherent in the Japanese political system.

Initial Diets were hostile to military funding. War with China in 1894–95, however, transformed the public perception of the navy from a financial burden into a service vital to Japan's national security and domestic prosperity. This, combined with the large war indemnity from China, produced massive naval budgetary increases. The naval mission expanded from defense of the home islands to command of the sea and defense of the empire. The navy continued to press for a combat mission independent of the army, which retained responsibility for national defense and command over naval forces in wartime. Interservice

rivalries intensified. The navy assiduously cultivated popular support among politicians, journalists, disenfranchised former samurai, and entrepreneurs who dreamed of an empire in the South Seas.

The navy used World War I to seize German colonies and implement its “southward advance” strategy for expanding the empire in the Pacific region. The war also transformed Japan from a debtor into a creditor nation. These changed circumstances finally allowed a Seiyūkai-navy alliance to deliver greatly increased postwar naval budgets. Previously, the naval budget had occasionally exceeded the army budget, but from 1917 to 1922 it did so consistently and massively.

In response to those who believe that Japan’s military muzzled its civil leaders in World War II and that this accounts for Japan’s rampage through the Pacific, Schencking’s book shows that the political parties had always worked closely with the military and that, conversely, the military had always been deeply involved in politics. This meant ever-deepening interservice rivalries, and also incomplete and incompatible war plans that would spell disaster for Japan and much of Asia and the Pacific in World War II.

For nonspecialists, additional allusions to political and budgetary issues beyond naval appropriations would have put the subject of the book into a broader context. Nevertheless, Schencking provides one of the best descriptions of the inner workings of the Japanese political system that I have ever read. It details the creation of the modern Japanese navy, the civil-military politics necessary for its development, the consequent army-navy rivalries, and the implications for the

Japanese political system and for future Japanese military strategy.

S. C. M. PAINE
Strategy and Policy Department
Naval War College



Black, Jeremy. *The British Seaborne Empire*. New Haven, Conn.: Yale Univ. Press, 2004. 420pp. \$40

Jeremy Black deliberately titled his book to link it with two classics, works that every maritime historian knows: C. R. Boxer’s *The Dutch Seaborne Empire* (1965) and J. H. Parry’s *The Spanish Seaborne Empire* (1966). The planned volume in that series that would have provided an overview of the British Empire was never completed, although nearly twenty years later D. B. Quinn and A. N. Ryan filled the gap for the early phase with their *England’s Sea Empire, 1550–1642* (1983). Black’s contribution shows a significantly different approach as well as a much broader and more nuanced view of the general theme.

Jeremy Black is a prolific writer who has become widely known for his broad, sweeping histories of British foreign policy in the eighteenth century and of the history of European and world warfare, as well as for his insightful studies of maps and cartography. He is fully experienced and eminently well qualified to attempt a broad-based study such as this.

Although Black’s title suggests a general history of the British Empire, his detailed focus is not on the earliest period but on the three hundred years from the Union of Scotland and England in 1707 to the present. To provide linkages,

however, he has written a hundred pages that describe the origins of the empire, racing from pre-Roman times to the mid-eighteenth century. From that point forward, Black expands out into his larger study, tracing both the British Empire's rise and its decline. In this Black is careful to give weight to the three elements of his title: the "Britishness" of that empire, the complexity of its maritime basis, and the distinctive differences with other types of imperial powers. The book is a dense collation of factual detail, but the picture that Black paints and the perspective that he presents are interesting. He links maritime exploration, trade, migration, and naval affairs in a broad context while at the same time bringing in the wide range of cross-cultural issues involved. Even beyond that, Black characterizes the British Empire as the power that gave indirect rise to America and was America's immediate predecessor as a global superpower. This linkage, as Black reminds us, allows a reader to begin to think about the connections between consecutive global powers.

Imperial history has largely been ignored until recently in academic circles, but Black's work clearly succeeds in underscoring the importance of the British Empire's maritime nature in its distinctive contribution to the development of the modern world. Black concludes that "if the British Empire is blamed for many of the aspects of modernization and globalization, it also serves as a way of offering historical depth to a critique of American power, and, in part, this is at issue when British imperialism is criticized."

JOHN B. HATTENDORF
Naval War College



Budiansky, Stephen. *Her Majesty's Spymaster: Elizabeth I, Sir Francis Walsingham, and the Birth of Modern Espionage*. New York: Penguin, 2005. 235pp. \$24.95

For many years the U.S. intelligence community has been dominated by a subculture enraptured with intelligence collected by technical means. Despite the wealth of intelligence these means provide, they do not always lead toward an understanding of how an opponent thinks. Many current and former intelligence officers have argued for over a decade that the United States must improve both its human intelligence and counterintelligence capabilities; events since 9/11 have reinforced that view with a vengeance.

History provides many examples of effective intelligence organizations in the days before technical means, and Stephen Budiansky, a journalist and military historian, has chosen for his subject one of the best for his latest book. Budiansky describes the intelligence successes of Sir Francis Walsingham, first as ambassador to France and later as Principal Secretary to the Privy Council of Queen Elizabeth I. In the latter role (at the time, akin to a chief of staff) Walsingham not only coordinated domestic and foreign policy but ran the kingdom's primary secret service.

Walsingham was a legend in an era filled with men of legendary stature. Where others were self-promoting, he was unobserved. Where many bragged of power and connections, he wielded power quietly and subtly, but always effectively. His painstaking attention to detail and his deep understanding of human nature made him the ideal spymaster.

The focus of “Mr. Secretary” (as he was known) was maintaining England’s independence from the maneuverings of Spain, France, and Rome. Budiansky describes how Walsingham’s skill in gathering and analyzing information complemented (if not always easily) Elizabeth’s talent for political and diplomatic intrigue. England, at the time a small fringe state tottering between Protestantism and Catholicism, was vulnerable to the machinations of the great powers of the day. Walsingham played critical roles in countering plots against Elizabeth, the most famous being that of Mary, Queen of Scots.

Walsingham’s role in the defeat of the Spanish Armada provides a textbook example of what intelligence can and sometimes cannot provide. He developed a comprehensive collection plan and employed a network of agents throughout Europe to gather information. He never blindly trusted any one source, using multiple agents against the same target. As the Armada preparations came to a head, Walsingham commissioned naval reconnaissance missions of key Spanish ports, and although his work provided strategic warning to the crown and the Royal Navy, contrary winds prevented tactical warning.

Walsingham understood that intelligence must support decision making—after all, he was a major player in both domestic and foreign policy—and ensured that the information he provided was focused on those ends. Upon becoming Principal Secretary, he was informed that the job required him to know everyone and see everything. By the time of his death, both his supporters and enemies believed him unsurpassed in this regard.

While Walsingham’s network did not survive him (he left no written legacy for his successors to follow), the memory of his effectiveness lives on.

If this book has a fault, it is the lack of discussion on Walsingham’s impact on later incarnations of the British secret service. Nonetheless, several maxims attributed to him remain sound guidance for today’s intelligence and policy professionals. “Knowledge is never too dear” speaks for the value of good intelligence. “An habit of secrecy is both policy and virtue” reminds us that success requires constant effort. Finally, “See and keep silent” remain watchwords for today’s intelligence professionals, as they were in the past.

JOHN R. ARPIN
Defense Intelligence Agency
Washington, D.C.



Berube, Claude, and John Rodgaard. *A Call to the Sea: Captain Charles Stewart of the USS Constitution*. Dulles, Va.: Potomac Books, 2005. 299pp. \$35

Charles Stewart was one of the preeminent officers of the early sailing navy. He is best remembered for the brilliant victory he gained over HMS *Cyane* and *Levant* as captain of USS *Constitution* during the War of 1812. Less well known, however, are the significant contributions Stewart made to the sea service over the remainder of his career—a career that witnessed the birth, growth, and evolution of the Navy during its first six decades of existence. As a central figure of the formative period in the Navy’s history, Charles Stewart has long merited greater scholarly attention than he has heretofore received.

In *A Call to the Sea*, Claude Berube and John Rodgaard redress this neglect with the first book-length study of Charles Stewart's life. Both Berube, a Brookings Institution LEGIS Fellow, and Rodgaard, an intelligence analyst, are Navy Reserve officers with numerous historical publications to their credit. Their portrait of Stewart is drawn from a range of secondary sources, as well as research in manuscript collections that document the public and private dimensions of the 1812 hero's career.

A Call to the Sea examines the major personalities, places, and events that shaped and defined Charles Stewart's life, from his birth in Philadelphia on 28 July 1778 to his death ninety-one years later at Bordentown, New Jersey. Among the career highlights that Berube and Rodgaard explore are Stewart's participation in three wars (the Quasi-War with France, the Barbary Wars, and the War of 1812); his service as commander of the Mediterranean, Pacific, and home squadrons; his role as a naval administrator, first with the Board of Navy Commissioners and later as commandant of the Philadelphia Navy Yard; and his consideration as a presidential candidate in the elections of 1840 and 1844. The authors also shed light on Stewart's private life

and relationships, in particular his troubled marriage to Delia Tudor of Boston, which ended in divorce in 1828.

Berube and Rodgaard have produced a biography that is highly favorable to its subject. The authors give Stewart high marks as a combat commander, as a mentor influential in shaping the Navy's junior officer corps, and as an administrator receptive to the technological and social changes that were altering the face of the Navy during the second quarter of the nineteenth century.

A Call to the Sea is an informative biography of one of the antebellum Navy's most intriguing and distinguished officers. As such, it should appeal to a wide general audience. Naval historians, however, may well be disappointed with this work. Berube and Rodgaard have failed to exploit fully the large body of official papers that document Stewart's sixty-two-year naval career, some of which are readily available in print. This, coupled with the authors' overreliance on secondary sources in assessing Stewart's life, has resulted in a biography lacking in critical rigor and fresh interpretive insights. For this reason, the definitive biography of Charles Stewart remains to be written.

CHARLES BRODINE
Naval Historical Center

BOOKS RECEIVED

Admiral Lord Keith and the Naval War against Napoleon, by Kevin McCranie. Gainesville: Univ. Press of Florida, 2006. 256pp. \$55.

Afghanistan & the Troubled Future of Unconventional Warfare, by Hy S. Rothstein. Annapolis, Md.: Naval Institute Press, 2006. 218pp. \$26.95.

Amphibious Assault: Manoeuvre from the Sea: Amphibious Operations from the Last Century, edited by T. T. A. Lovering. U.K.: Royal Navy, 2005. 495pp.

Appeasement & Rearmament: Britain 1936–1939, by James P. Levy. Lanham, Md.: Rowman & Littlefield, 2006. 188pp. \$19.95.

The Ash Warriors, by C. R. Anderegg. Washington, D.C.: U.S. Government Printing Office, 2005. 146pp.

“Behind Bayonets”: The Civil War in Northern Ohio, by David D. van Tassel. Kent, Ohio: Kent State Univ. Press, 2006. 125pp.

The Dieppe Raid: The Story of the Disastrous 1942 Expedition, by Robin Neillands. Indianapolis: Indiana Univ. Press, 2005. 292pp. \$35.

Diplomacy and War at NATO: The Secretary General and Military Action after

the Cold War, by Ryan C. Hendrickson. Columbia: Univ. of Missouri Press, 2006. 172pp.

Escalation and Negotiation in International Conflicts, edited by I. William Zartman and Guy Olivier Faure. New York: Cambridge Univ. Press, 2006. 334pp. \$29.99.

Fire at Sea: The Tragedy of the Soviet Submarine Komsomolets, by D. A. Romanov. Dulles, Va.: Potomac Books, 2006. 266pp. \$35.

The Ghosts of Iwo Jima, by Robert S. Burrell. College Station: Texas A&M Univ. Press, 2006. 262pp. \$29.95.

Insurgency and Counter-Insurgency in Iraq, by Ahmed S. Hashim. Ithaca, N.Y.: Cornell Univ. Press, 2006. 482pp.

MACV: The Joint Command in the Years of Escalation, 1962–1967, by Graham A. Cosmas. Washington, D.C.: U.S. Government Printing Office, 2006. 524pp.

Manufacturing Human Bombs: The Making of Palestinian Suicide Bombers, by Mohammed M. Hafez. Washington, D.C.: United States Institute of Peace, 2006. 124pp.

Industrializing American Shipbuilding: The Transformation of Ship Design and Construction, 1820–1920, by William H. Thiesen. Gainesville: Univ. Press of Florida, 2006. 302pp. \$55.

The Naval Institute Almanac of the U.S. Navy, by Anthony Cowden. Annapolis, Md.: Naval Institute Press, 2005. 247pp.

On Board: My Life in the Navy, Government, and Business, by Paul R. Ignatius. Annapolis, Md.: Naval Institute Press, 2006. 285pp.

The Pacific Campaign in World War II: From Pearl Harbor to Guadalcanal, by William Bruce Johnson. New York: Routledge, 2006. 414pp.

The Psychology of Nuclear Proliferation: Identity, Emotions, and Foreign Policy, by Jacques E. C. Hymans. New York: Cambridge Univ. Press, 2006. 273pp.

Seeking Security in an Insecure World, by Dan Caldwell and Robert Williams, Jr. Lanham, Md.: Rowman & Littlefield, 2006. 239pp. \$24.95.

Total Cold War: Eisenhower's Secret Propaganda Battle at Home and Abroad, by Kenneth Osgood. Lawrence: Univ. Press of Kansas, 2006. 506pp.

Why Air Forces Fail: The Anatomy of Defeat, edited by Robin Higham and Stephen J. Harris. Lexington: Univ. Press of Kentucky, 2006. 382pp. \$39.95.



IN THE JOURNALS

Kevin Woods, James Lacey, and Williamson Murray, "Saddam's Delusions: The View from Inside," *Foreign Affairs* (May/June 2006). Key findings of the U.S. Joint Forces Command Iraqi Perspectives Project, a comprehensive, two-year study of the inner workings and behavior of Saddam Hussein's regime based on previously inaccessible primary sources.

Frederick W. Kagan, "A Plan for Victory in Iraq," *Weekly Standard*, 29 May 2006. A detailed plan for militarily defeating the Iraqi insurgency with a

relatively modest increase in U.S. combat power.

Keir A. Lieber and Daryl G. Press, "The End of MAD? The Nuclear Dimension of U.S. Primacy," *International Security* (Spring 2006). A controversial and widely noticed analysis of the evolving nuclear balance among the major powers; its key argument is that the United States appears to be seeking nuclear primacy in the sense of a preemptive counterforce capability against Russia and China.