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Book Reviews

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BOOK REVIEWS

A book reviewer occupies a position of special responsibility and trust. He is to summarize, set in context, describe strengths, and point out weaknesses. As a surrogate for us all, he assumes a heavy obligation which it is his duty to discharge with reason and consistency.

Admiral H.G. Rickover

"The Iraqi Outlaw"

Moore, John Norton. *Crisis in the Gulf: Enforcing the Rule of Law.* New York: Oceana, 1992. 677pp. (No price given)

THIS WORK IS A COMPREHENSIVE tilling of the fertile field of "rule of law" issues that emanated from the Kuwaiti conflict. Few are better qualified for this undertaking than John Norton Moore, a distinguished scholar in national security law at the University of Virginia School of Law. Moore displays a passionate interest in his subject, in part because he was intimately involved in the Gulf conflict as a legal advisor to Kuwait's ambassador to the United States.

The book begins with a thoughtful discussion of the global implications of the war, focusing on world order, self-determination, human rights, and the rule of law. Within that framework, in part two Moore tackles the unlawfulness of the Iraqi invasion, placing particular emphasis on Saddam Hussein's violations of the laws of war. This section, which is written not unlike a legal brief, relentlessly details an incredibly long list of Iraqi actions that violated the United Nations Charter, regional agreements, armed conflict conventions, arms control treaties, and international rules pertaining to human rights. Part three addresses the legality of the coalition's response to Iraqi aggression. This analysis, which is only one-third the length of the list of Iraqi wrongdoing, is easily followed, since its format traces chronologically the escalating measures mandated against Iraq by the Security Council. Along the way, however, the author takes the time to refute the dangerous argument that a nation's inherent right of self defense under customary law as well as under the conventional law embodied in Article 51 of the UN Charter may be lost simply because of the resolutions that the Security Council passed while dealing with this crisis.

The text of Charter Article 51 does imply, and perhaps expects, that individual or collective self-defense measures will be unnecessary after the Security Council has taken the necessary measures to restore the peace. This possible reading of the text does not, however, provide a basis under international law for concluding that a state's "inherent" right of self defense evaporates just because the Security Council takes "some" action regarding a particular aggression. Indeed, only the most compelling circumstances would justify the conclusion that a sovereign state has relinquished as fundamental a right as its right of self defense. If any nation wanted to give up its right of self defense, such a desire would clearly have to be expressed in the most explicit terms. Therefore it is inconceivable that the states ratifying the UN Charter intended to extinguish their self-defense rights through a speculative reading of the ambiguous language of Article 51.

The fourth part of this work is devoted to an assessment of Iraq's arguments in support of its actions against Kuwait. The assertion that a legitimate Kuwaiti claimant group invited Iraq into Kuwait is rightfully dismissed, virtually without discussion. Another argument was that the conflict arose from long-festering territorial claims and border disputes. This point held merit for Moore and is given careful attention. One cannot take seriously Iraq's claim to all of Kuwait's territory; after all, when Kuwait was admitted into the United Nations in 1963, no member state voted against recognizing it as a sovereign state with defined territory. But other territorial disputes can not be dealt with summarily. For example, Iraqi claims to the offshore islands of Warbah and Bubiyan have surfaced from time to time, fueled by Iraq's perceived need for ocean access through the Persian Gulf. Moore, who advised the representative of the State of Kuwait in the UN Iraq-Kuwait Boundary Demarcation Commission, presents extensive evidence intended to refute Iraq's historical claims to the islands. Given the author's relationship to Kuwait, it is no surprise that he finds little that is persuasive to support Iraq's position. In any event, legal arguments are now largely moot, for on 3 April 1991 the Security Council expressly endorsed the boundary agreements entered into between Kuwait and Iraq in 1932 and 1963 respectively. These agreements, *inter alia*, allocate Warbah and Bubiyan to Kuwait. While Iraq might legitimately question whether passing such a resolution was appropriate for the UN Security Council, the fact remains that there is virtually no international community support for Iraq's claims to the two islands. Indeed, the only real issues for the two countries to resolve are the precise, not the general, location of all their boundary lines. The case presented in *Crisis* is overwhelming that there was no justification based on territorial disputes under international law for an armed attack by Iraq against Kuwait.

Another major Iraqi argument was the alleged continuing Israeli aggression against Arab nations. Moore endeavors to destroy systematically this contention, beginning with details on the condemnation by the Arab League of the invasion

of Kuwait. The fact that troops from nine of the most important Arab countries participated in coalition operations against Iraq strongly undercuts any attempted linkage by Iraq to overall Arab-Israeli differences. In any case, the argument is futile. Even if such linkage were established, an armed attack by Iraq against Kuwait would not be justified under well settled rules of international law.

A final Iraqi assertion was that it was only doing to Kuwait what the United States had done to Grenada, Panama, El Salvador, and other states. There are intellectually honest differences of opinion among reputable international lawyers about the legitimacy of the use of force by the United States in several recent instances. At a minimum such bona fide arguments ought to remind responsible leaders in all nations that a carefully developed self-defense rationale under international law is required before resorting to force. But again, Iraq's legal case would not be bolstered even if there were unlawful U.S. actions to cite. Two wrongs do not equal one right, even under the most jaundiced view of international law.

Part five graphically portrays the materials that Moore garnered as a passenger on the first "freedom flight" to Kuwait City shortly after the defeat of Iraqi forces and the end of hostilities. His most vivid initial impression was the thick cloud of smoke from the more than five hundred oil well fires deliberately set by Iraqi forces. This act of "environmental terrorism" was inexcusable, but, according to Moore, an even greater tragedy was the cruel treatment by Iraqi soldiers of Kuwaiti citizens—between six and eight thousand were killed. The dramatic impact of this book is greatly enhanced by the author's personal interviews with survivors of the Iraqi occupation and by his first-hand observations of the extensive and often wanton destruction of Kuwait City.

The author next focuses on enforcement mechanisms: reparations, war crimes, trials, and reprisals. With respect to reparations, Saddam Hussein refused the demand contained in Security Council Resolution 687 that Iraq accept, in principle, its liability under international law for damages resulting from the invasion. The civil liability of the Iraqi government is still unresolved, and the author points out that Iraqi sales and other commercial transactions may be subject to legal processes and even harassment wherever they occur, around the world. Not surprisingly, Moore also supports the convening of war crimes trials to hold Saddam Hussein and others personally accountable for their criminal actions in Kuwait. He traces the measures taken by the United Nations to establish the Nuremberg and Far East International military tribunals after World War II, and he offers a halfhearted review of the principal arguments for and against war crimes trials. In reality, Moore cannot bring himself to present very persuasive arguments against trying such individuals as Saddam Hussein. He charges that skeptics are victims of "old thinking" and that "new thinkers" see the deterrent value of trials for high-level national leaders who have committed

crimes against the peace or grave breaches of the laws of war. The chapter ends with a provocative, but all too short (two-page), discussion on practical considerations in the use of reprisals.

A brief, final, substantive chapter is addressed to war powers issues under the U.S. Constitution. In the Kuwait case, academic interest in this continuing separation-of-powers debate is limited by the fact that on 12 January 1990 Congress passed a resolution expressly authorizing the use of military force against Iraq. Notes at the end of the chapter should satisfy the curiosity of any who wish to research in greater depth Moore's well articulated and documented views on war powers issues.

The author concludes with an eight-page analysis of the requirements of peace as well as of war prevention. Moore is at his professional best when he synthesizes complex factual patterns and trends into a coherent legal framework. Moore has deeply held views, which he fully discloses and forcefully defends. The reader is not left to guess where he stands, and he yields no ground to his opponents. *Crisis* must be seen for what it is—a condemnation of the "outlaw" Saddam Hussein and an appeal for a stronger rule of law in the world. Nearly half the text is devoted to invaluable reference materials, including fascinating pictures taken by the author of Kuwaiti oil wells burning full blast. There is a comprehensive compendium of the most important UN documents on the Gulf War, as well as of papers substantiating Kuwait's territorial claims and, most interestingly, previously little known documents pertaining to Iraq's 1932 request for admission to the League of Nations. These documents provide persuasive evidence that the frontiers of Iraq and Kuwait were fixed, for all practical purposes, at that time.

This book is a valuable source of information on the Kuwaiti conflict for international lawyers. One possible criticism is that Moore obviously loathes Saddam and the crimes he and his followers committed; therefore more persuasive arguments on behalf of these "villains" will have to be found elsewhere. In addition, the materials on the territorial claims of Kuwait may be covered in disproportionate detail. Overall, however, I recommend *Crisis* to anyone interested in a spirited promotion of the rule of law and its comprehensive application to Iraq's atrocities and aggression against Kuwait. Moore's most important contribution is that he has made the rule of law the centerpiece for evaluating a "model" case of warlike conduct in the contemporary world.

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Diehl, Paul F. *International Peacekeeping.* Baltimore, Md.: The Johns Hopkins Univ. Press, 1993. 211pp. $36.50

It is difficult to define precisely international peacekeeping. Paul Diehl suggests that it is "the imposition of neutral and lightly armed interposition forces following a cessation of armed hostilities, and with the permission of the state on whose territory these forces are deployed, in order to discourage a renewal of military conflict and promote an environment under which the underlying dispute can be resolved." This definition is useful, but recent and various historical cases for peacekeeping do not conform to each of its prongs. Nonetheless, the definition serves as a conceptual cornerstone for thinking about peacekeeping, and Diehl's study contains a theoretical construct that fully develops it.

Diehl has centered his study around a comparative analysis of United Nations peacekeeping operations from World War II to 1992, stretching from efforts in the Suez to Yugoslavia. The bulk of the study, however, focuses more narrowly on six operations: the Suez crisis (UNEF I), the Yom Kippur War (UNEF II), and the operations in the Congo (ONUC), Cyprus (UNFICYP), Lebanon (UNIFIL), and Beirut (MNF)—a non-UN force consisting of Americans, British, French, and Italians. These cases were selected because they share certain similarities, notably the neutral interposition of forces on the territory of the consenting state, but significant operations were left out of the analysis. The discarded data includes Namibia (UNTAG), West New Guinea (UNSF), the Golan Heights (UNDOF), and Cambodia (UNTAC). Yugoslavia (UNPROFOR) and Somalia (UNOSOM II) were too recent to be included.

Diehl's goal was to identify empirical generalizations about peacekeeping operations, but the research is narrative and lacks the rigor or testability that could qualify the findings as empirical. Moreover, some of the findings are obvious, such as that "peacekeeping is most appropriate in an interstate conflict in which all parties are willing to halt hostilities and accept a peacekeeping force." There are some interesting results, however, such as that the geographic location of peacekeeping forces is critical to the success of the mission; forces that occupy relatively invulnerable positions with a wide view of observation enhance the likelihood of a successful outcome. This conclusion reflects the unfortunate lesson of the Marine barracks in Beirut. It is also interesting that the UNEF II, during the Yom Kippur War, was the only operation that culminated in a resolution of conflict—the Camp David Accords. Whether peacekeepers are highly successful in preventing combat between parties may be a controlling factor in whether or not there will be a subsequent treaty.

Diehl writes that the end of the Cold War has introduced an era in which the international system will rely heavily on peacekeeping operations to satisfy global peace and security. While this assertion may have had considerable basis in the early 1990s (when the United Nations peacekeeping budget exploded), the deterioration of the efforts in Somalia (UNITAF and UNOSOM

II) into intermittent combat has dampened the willingness of leaders to bind foreign policy too tightly to multilateral peacekeeping.

Although peacekeeping was a useful instrument in reversing animosities fueled by the Cold War (such as in Angola or Afghanistan), Diehl's claim that peacekeeping is becoming more important because "changes in the world over the past few years have lessened the intensity of regional conflicts" and because "disputants have become more amenable to intervention" is clearly wrong. On the contrary, the end of the Cold War has encouraged recalcitrant leaders to stake out nationalist, religious, and ethnic differences that superpower influence might once have contained.

In addition to United Nations peacekeeping, Diehl discusses institutional alternatives, such as a permanent multinational peacekeeping force, regional peacekeeping operations (e.g., the Dominican Republic), and multinational peacekeeping (MNF and MFO). The author suggests that the ad hoc method of United Nations peacekeeping has an edge over regional and multinational operations, but an analysis of each type identifies several advantages that regional and multinational operations have over the United Nations. Regional and multinational forces maintain a more cohesive view of the mission. The nations that field the troops are better able to undertake long-range planning, and they maintain a higher degree of autonomy in their operations. On the other hand, regional or multinational forces operate outside the neutral mantle of the United Nations.

The author also addresses the advent of naval peacekeeping roles. During the Iran-Iraq "tanker war," the United States unilaterally reflagged Kuwaiti oil tankers. In the future, designated naval assets may escort neutral shipping under the direction of the United Nations. Naval forces might also participate in arms limitation verification, such as monitoring the placement of chemical or nuclear weapons on the sea bed or verifying environmental compliance. The author omits mention of the most extensive, and still continuing, United Nations naval operation—policing the embargo against Iraq after Operation Desert Storm.

The strength of this book is in its research and its assimilation of historical peacekeeping cases into a common framework. Several lessons emerge. Peacekeeping operations may be most suitable for maintaining a nervous peace *after* an armed conflict rather than for imposing peace. Thus, successful operations are more often a result of the relevant political circumstances than the operational considerations on the ground. This inference highlights the need to understand the political basis for a particular conflict before introducing peacekeepers. The support or acquiescence of the warring parties, the absence of any significant civil conflict, and the perceived neutrality of the peacekeeping forces seem to be prerequisite political factors for fashioning a durable peace.

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Bundy, McGeorge; Crowe, William J., Jr.; and Drell, Sydney D. *The Road Away from the Brink: Reducing Nuclear Danger.* New York: Council on Foreign Relations Press, 1993. 107pp. $14.95

Blackwill, Robert D. and Carnesale, Albert, eds. *New Nuclear Nations: Consequences for U.S. Policy.* New York: Council on Foreign Relations Press, 1993. 272pp. $17.95

With the end of the Cold War and the relaxation of the nuclear trigger fingers in both the former Soviet Union and the United States, many hoped that nuclear weapons would no longer be the salient issue in U.S. foreign and military policy. Events of the last few years, however, have forced observers of U.S. policy to revisit nuclear issues with renewed interest and concern. Chief among these events were the failed coup in Moscow; the debates over the disposition of nuclear weapons in the former Soviet states of Ukraine, Belarus, and Kazakhstan; the discovery of the surprising depth, breadth, and advancement of Iraq's nuclear programs; and most recently, North Korea's reticence to comply with the Nuclear Non-Proliferation Treaty.

Both books reexamine nuclear issues from the perspective of the mid-1990s. Although the two works are distinct in their objectives, they share an authoritative and pragmatic approach and avoid the extremism that has limited the value of much of the work on nuclear issues.

The Road Away from the Brink is a short, readable work that prescribes a comprehensive nuclear policy for the United States. Central to its policy recommendations is the pursuit of continued progress in reducing and restructuring the nuclear forces of the U.S. and Russia by fully carrying out and then expanding on the provisions of the Start I and II treaties. The other pillar of the authors' proposed policy is vigorous support of non-proliferation. Their central premise is that the vast majority of nations have a vested interest in preventing further proliferation of nuclear weapons and in reducing both reliance on nuclear defense and the inventories of weapons.

New Nuclear Nations takes another approach by focusing on those few states that have decided, or are tempted, to proliferate. While the editors make some general policy recommendations in their conclusion, the intent of this collection of essays is to offer an analytical framework, and therein is its value. The editors begin in a chilling fashion, presenting hypothetical events of Desert Storm as they might have occurred with a nuclear-armed Iraq. After discussing the potential problems and threats to the United States, successive chapters take an exhaustive look at the tools the U.S. and like-minded states have to deal with potential or actual proliferators; these means include arms control, diplomatic measures, offensive military action, and defense. Two chapters are of particular interest. Steven E. Miller argues, in his essay, that in some cases it may be in our best interest to *assist* proliferating nations in the areas of weapon safety and security, both for the obvious mutual benefit and for the increased access to and knowledge of the proliferator's nuclear program. Robert

D. Blackwill and Ashton B. Carter provide an insightful look at the most difficult problem of coping with proliferation—detecting it early enough for effective action. They probe the capabilities required and the challenges inherent to the intelligence process in support of preventing proliferation.

Where *The Road Away from the Brink* provides the reader with a comprehensive approach to dealing with global nuclear danger, the contributors to *New Nuclear Nations* present a detailed menu of considerations and options for dealing with uncooperative states. Both works recognize that the United States cannot resolve its nuclear problems alone but must support and nurture a coalition of states willing to work together to reduce the nuclear threat to mankind. These books also have in common a considerable value for students of U.S. security policy.

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Ramberg, Bennett, ed. *Arms Control Without Negotiations: From the Cold War to the New World Order.* Boulder, Colo.: Lynne Rienner, 1993. 281pp. $42

Whatever happened to arms control? Just a few years ago the papers were full of stories about the strategic nuclear arms talks (Start), the intermediate theater nuclear (INF) talks, and the various conventional arms negotiations in Europe. Today what passes for arms control are concerns about North Korea and nuclear proliferation; while these are certainly important, they are only a narrow slice of a much larger subject. Bennett Ramberg's interesting collection of essays may go a long way toward answering my question; and despite the title, the contributors are not wooly-headed idealists but include such well known strategists and realists as Colin Gray and Rose Gottemoeller, both formally of RAND and the National Security Council staff.

Ramberg defines arms control without negotiations as "a menu of *unilateral* actions, including but not limited to weapons reductions and limits, as well as *unilateral* research, development, procurement, and reconfiguration decisions that collectively are as important, if not more important, than formal agreements"—which, as these essays later illustrate, covers quite a large area. The book is divided into three parts: "Unilateral Arms Control to Induce Reciprocation," "Defense Practice of Unilateral Arms Control," and "The Domestic Politics of Unilateral Arms Control."

As with any edited book, the essays are uneven; the very first, unfortunately, "The Psychology of Arms Control and Reciprocation," is rather ponderous and should not be read in bed. However, it is followed by an interesting piece by Rose Gottemoeller on "Unilateralism in Soviet and Russian Arms Control," which discusses Russia's various initiatives, including naval proposals, and argues in an epilogue that with Yeltsin being challenged from the right, further actions "are no longer productive." The last chapter in part one focuses on four moratorium case studies concerning biological weapons, atmospheric nuclear testing,

general nuclear testing, and antisatellite (ASAT) weapon testing.

Whereas the first part is devoted to a fairly conventional view of arms control, Part 2 looks at such items as strategy and procurement decisions. It opens with another interesting piece, by Colin Gray, who explores "the proposition that nuclear strategy, force procurement, and deployment can perform functionally as arms control" and that "to approach arms control nearly exclusively as a process of formal negotiation is to fail to understand the nature and opportunities of the subject." Gray is followed by chapters on "Technology Deployment and Denial," "Negative Consequences of Arms Transfers," and two on self-denial—first, the decisions by Canada, Germany, Sweden, and Switzerland to forego nuclear development, and second, the unilateral nuclear-free zones in the South Pacific.

Part 3 opens with the only historical chapter in the entire book. In "The Politics of Unilateral Control between the Two World Wars," Bradford Lee, of the Naval War College, points out that unilateral military budget limitations by the British, French, and the U.S. had more impact than any of the more famous interwar arms agreements. This is followed by chapters on the "Western Antinuclear Movements during the 1980s" (which includes sections on the influence of pacifism, moralism, antinuclearism, and even feminism), and there is also another on "Congressional Politics to Induce Reciprocation" (looking at the role of Congress). The editor's concluding chapter contains a useful matrix table of "Possible Approaches" comparing bilateral, multilateral, and unilateral methods.

If there is one compliant—and although virtually all the pieces are balanced—it would be the lack of a critical summary chapter on the whole topic, looking at such questions as the problems of verification, false senses of security, what one does when it does not work, and worse, when there is outright cheating. In general, this is a comprehensive and evenhanded book, and the articles are well written and researched, with good footnotes. *Arms Control Without Negotiations* appears to fill an important gap in the arms control literature.

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Norris, Robert S.; Burrows, Andrew S.; and Fieldhouse, Richard W., eds. *Nuclear Weapons Databook, Vol. V: British, French, and Chinese Nuclear Weapons.* Boulder, Colo.: Westview, 1994. 437pp. $85

Perhaps the most difficult task confronting the student of nuclear weapons is securing access to accurate data in the open literature. Whereas information on national nuclear policies, deterrence doctrines, and system acquisitions is readily available, this is not necessarily the case with respect to nuclear weapons data, since such data have a linear connection to a nation's strategic posture. Precisely because it is just such a comprehensive source of data on

British, French, and Chinese nuclear weapons, the recent volume by Norris *et al.* is a tremendous intellectual achievement.

This study, volume V in the Nuclear Weapons Databook series, was produced for the Natural Resources Defense Council, Inc. The authors have presented in a systematic and meticulous fashion charts, graphs, tables, and photographs of nuclear weapons systems and facilities. They have also identified, in tabular form, all the nuclear tests conducted by these nations since the births of their respective programs. Henceforth, no serious student of nuclear weapons can afford to evaluate trends in the historical development of the three programs without reference to this book.

The authors establish early their authority as highly informed observers. Thus, for example, in their treatment of Britain they take note of the British penchant for secrecy: "Britain has one of the most extensive systems to control the flow of official information of any Western democracy." This practice is elevated to an art by its practitioners—"Even what is made public in Britain must be used with a healthy skepticism. The written historical record may be, on several key matters, inaccurate and dishonest." Hence, right at the outset, recognition of the tenuous nature of the data relative to British nuclear weapons establishes the authors' bona fides as scholars who have taken the measure of their subject.

Accordingly, Robert Norris and his colleagues squarely confront what they consider the *raison d'être* for Britain's effort to develop a thermonuclear weapon in 1954: "Among British officials there were strong feelings at the time that U.K. possession of the H-bomb could exert a restraining influence on U.S. policy. There was less concern about Soviet aggression at the time than there was about American adventurism." The independent British nuclear deterrent thus emerges as a political instrument, fashioned as much to assure a measure of control over American strategic policy as to be a military instrument to contain Soviet expansion westward. If Norris and his colleagues have presented an accurate hypothesis, as I believe they have, then there must be major reassessments of Anglo-American relations since 1945 and, concomitantly, some thought given to Britain's singular contribution to the containment and collapse of Soviet power as a result of its possession of an independent nuclear deterrent.

The authors have presented the French effort as a nationalist one, inspired by Charles de Gaulle's notion of a France restored to world power status. Yet the French were apparently deeply dependent upon U.S. technical assistance in this effort. Richard Ullman's characterization of the "negative guidance" provided by the U.S. is illustrative: "Through winks, head shakes, silences, and the like, U.S. experts would guide their French counterparts down the right path toward the solution of a problem without technically transferring the forbidden Restricted Data on the design of nuclear weapons."

In recent years Anglo-French nuclear cooperation has evolved as the first step in the evolution of a genuinely

European nuclear deterrent. On 26 July 1993, the Franco-British Joint Commission on Nuclear Policy and Doctrine became a permanent organization. With the rebirth of the Anglo-French *Entente Cordiale*, the Anglo-French nuclear deterrents have collectively the potential to alter the strategic calculus, and not only in Europe. This development alone justifies the inclusion of British and French deterrents together in the same volume. As the U.S. and Russian nuclear weapons arsenals are reduced over the next decade, the British and French deterrents will attain greater geostrategic significance.

Writing in the *Armed Forces Journal* over a decade ago, Anthony Cordesman observed that French nuclear deterrence doctrine was premised upon a "'nuclear trigger force' policy that relies for deterrence on its ability to trigger a theatre wide, or world-wide nuclear conflict . . . ." Since the French Force de Frappe was and is strategically inferior to the British deterrent, then it follows that Britain also commands a "nuclear trigger force." Both nations, then, have the capability to affect unilaterally the strategic balance, albeit that France's ability is not in any way equivalent to that of the United Kingdom.

With reference to China, however, no such claims can be made. In their evaluation of Chinese nuclear weapons, the authors have rescued a hitherto obscure topic from even more obscure sources. Although they have included much data and photographs of rockets and aircraft, their section on China could have been left to a study of lesser nuclear powers such as India; China's nuclear capability cannot really be compared with either that of France or Great Britain. Nevertheless, the data on China will provide an excellent starting point for further research into its nuclear weapons program.

The book's only flaw, if flaw it is, relates to the size of the introductory chapter. It would have been more helpful to have a larger introductory chapter and also a concluding chapter that dealt with the post–Cold War world. These observations aside, Norris and his colleagues have approached their subject without polemics and in so comprehensive a manner that their efforts will set the standard for similar works in the future. A great debt is owed to the authors for their magnificent achievement.

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Feshbach, Murray and Friendly, Alfred, Jr. *Ecocide in the USSR: Health and Nature under Siege.* New York: Basic Books, 1992. 376pp. $24

"I have seen the future, and it works!" declared journalist Lincoln Steffens after his visit to the Soviet Union in the early 1930s, becoming thereby forever a symbol of liberal reformers dazzled and duped by the false promises of communism. For what Steffens observed turned out to represent anything but the future, even for the Soviet Union—and as the authors of this seminal work demonstrate, it most certainly did not work. Page after page, chapter after chapter, Feshbach and Friendly present the

dismal statistics. Originally the research for this book was conducted by Feshbach for the Office of Net Assessment, Department of Defense. The authors have extrapolated much of their information from the incomplete, cryptic, and deliberately misleading data of the pre-perestroika period, and even more has been culled from the flood of information released after Mikhail Gorbachev recognized that the only hope for reform lay in allowing public access to the truth, however damning.

And damning it is. Murray Feshbach, whose exhaustive demographic research of over more than twenty years earned him a unique credibility, even among Soviet officials, and Alfred Friendly, Jr., once a Moscow bureau chief for *Newsweek*, have collaborated to forge a mountain of raw data into a readable, interpretive work that is destined to remain a classic. *Ecocide in the USSR* could well serve as a handbook to guide the efforts of those in Russia and other former Soviet republics who face the monumental task of cleaning up the ecological catastrophe they inherited.

The picture the authors paint is almost uniformly bleak. In 1985 the life expectancy of a fifty-year-old Soviet male was lower than in 1939; in 1990 life expectancy of Moscow residents was ten years below what it had been in 1970. The Soviet Union was the only industrialized nation whose infant mortality rate rose in the 1970s and 1980s, and a senior officer reported in mid-1991 that no more than 48 percent of citizens were healthy enough to be drafted. The human implications aside, such statistics have an economic cost. The authors calculate that in 1989 losses from illness equaled 3 percent of total Soviet output (seven billion rubles in sick pay and twenty billion in lost production).

In some measure, the chapter titles tell the story. "Harvests of Neglect" describes the devastating impact of an agricultural policy that ignored human and environmental concerns and sought to maximize production through forced collectivization, mechanization, and excessive use of fertilizers and pesticides. The result was a system in which a Soviet farmer by 1990s might produce enough food for five people, while his American counterpart fed fifty. Soviet agriculture was notorious for its wastage; in 1989 thirty million tons of grain—14 percent of the total crop—rotted in the fields or soon after harvest.

In misguided efforts to correct these deficiencies, the centralized system ruthlessly exploited both human and natural resources. Vast irrigation schemes eroded arable land or turned it into useless bogs. Fertilizers and pesticides poisoned the soil and waterways. A chapter entitled "A Sea of Troubles" documents how draconian measures imposed by Moscow resulted in the virtual death of the Aral Sea, while the cotton production that was supposed to benefit, fell. Only barely, and at the last moment, were environmentalists able to block a desperate attempt to amend the results of earlier policies by diverting the flow of Siberian rivers to the south —a massive tampering with nature that would have had incalculable and potentially disastrous consequences.

Not surprisingly, health problems among the rural population soared over

the years, but the government did little to alleviate them. In 1988 the Minister of Health revealed that nearly two-thirds of rural district hospitals lacked *hot water*, and 17 percent had *no water at all*. Given such conditions, it is not surprising that the Soviet Union witnessed a steady migration of rural dwellers to the cities, where overcrowding compounded a different set of problems.

Indeed, Soviet agricultural mismanagement had an equally devastating industrial counterpart. In the chapter "Dark, Satanic Mills," the authors chronicle the effects of a seventy-year policy of expanding heavy industry regardless of costs to the population and environment. In the city of Nizhny Tagil, for example, where the principal industry is metallurgy, decades of unrestricted efforts to expand production created an environment where in 1990 each inhabitant breathed in 1.5 *tons* of harmful pollutants per year, not counting those from vehicle emissions. The effects on the health of the population were predictable. In 1987 the incidence of first-time diagnoses of cancer in the Soviet Union was 57 percent higher than the U.S. rate.

Such hellish conditions were not, of course, intended or expected by the pioneers of socialism, whose promises of full employment, housing for all, universal health care, and equal access to education held enormous appeal. Indeed, many visitors from today's world, if stripped of hindsight, might look no less favorably than Lincoln Steffens did upon the ideals of the Soviet state of the early 1930s, set against a backdrop of economic uncertainty, nationalist conflict, and incipient fascism.

So where did the Soviet system go wrong? The authors attribute its downfall to the very fervor with which it pursued its goals: "The utopian quest became a blinding compulsion . . . that justified destruction and deceit on a huge scale in the name of progress toward an earthly paradise. . . . Like other assaults on human dignity and hope—mass arrests and deportations, man-made famine—the indifference to pollution and human health is a consequence of the Revolution. Ecocide in the USSR stems from the force, not the failure, of utopian ambitions."

Feshbach and Friendly also cite the mechanism by which Soviet communism sought to implement its philosophy. "For the environment, the central planning system became Frankenstein's monster. . . . The plan and its fulfillment became engines of destruction geared to consume, not to conserve, the natural wealth and human strength of the Soviet Union."

One of the few bright spots in this dreary picture is the remarkable response of the traditionally passive public as Soviet health and ecological problems became known. The authors cite the Chernobyl disaster of April 1986 as the galvanizing event that forced the regime, after attempting a coverup, to allow full and open debate of the disaster and related environmental problems. In 1988 and 1989, environmental protest turned into a political force throughout the Soviet Union, sparking calls for political and economic reform. In non-Russian republics, it fused with ethnic

passion and became a protest against Russian exploitation.

Despite the political revolution that evolved at least in part from the environmental movement and subsequently swept away the Soviet state, the authors offer a sober assessment of the future. They note that once in power, environmentalists have discovered obstacles of unexpected magnitude. Even under the best of circumstances, cleanup would require decades and cost trillions of rubles. (The authors note that the U.S. spent $1.5 trillion on environmental cleanup between 1972 and 1988; a comparable Russian effort would cost at least 255 billion in 1991 rubles for pollution abatement alone.) Given the current economic plight of Russia and its sister republics, such expenditures are out of the question, and simply shutting down polluters is politically untenable during a time of rising unemployment and inflated living costs. Dramatic improvement is therefore not in sight, despite encouraging developments at the grassroots level.

What are the implications for the U.S.? In a chapter entitled "Crippled Giant," the authors discuss the impact of health and environmental problems on the military capabilities of our former adversary. By effectively cutting the conscript pool in half and weakening the morale and readiness of existing forces, those problems significantly undermined the Soviet threat; a resurgent, nationalist Russia would face similar liabilities.

Nonetheless, the massive problems portrayed here should be no cause for satisfaction, even to Russophobes. These catastrophes complicate Russia's path to economic reform and political democracy, considerations of major import for the West. They will affect the operations and profitability of Western-financed businesses, particularly in the manufacturing and extractive sectors. Further, in today's global economy, the long-term costs of repairing the damage are likely to extend well beyond the borders of the former USSR. It is small compensation to contemplate the irony that the greatest wounds inflicted by the Soviet empire turned out to be upon its own resources and people.

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Gleick, James. *Genius: The Life and Science of Richard Feynman.* New York: Random House, 1992. 531pp. $34.50

James Gleick has done it again. The author of the award-winning *Chaos: The Making of a New Science* has again combined expository power with his appreciation for the excitement of scientific endeavor and a sensitive understanding of the creative process, to present a thoughtful biography. This book is not just a recitation of the accomplishments of Richard Feynman and his colleagues in mathematical physics; it is a series of essays about creative genius, the nature of science and of scientific proof, and on the intersections of fundamental science and philosophy. Gleick shows the many manifestations of Feynman's genius, though he can give no "recipe" for that quality.

There are important insights here for military technologists and for policy and executive-level individuals in the national security establishment. *Beware orthodoxy. Tolerate the unconventional approach. Revere imagination,* especially the imagination that leads to quantitative and predictive results. In many aspects of the national security world, such characteristics are in conflict with either discipline or institutional goals. Reflect on Feynman's contribution to the resolution of the causes of the *Challenger* disaster.

Richard Feynman was a major force in modern physics until his death in 1988. His intuitions and the revolutionary series of mathematical tools and formulations (such as quantum electrodynamics and path-integrals) that he developed became underpinnings for many advances in particle physics. These advances, in turn, strengthened our understanding of nature. Much of this work had its beginnings in the Manhattan Project, where it was necessary to compute such quantities as critical mass and device yields.

Feynman's life corresponded to that of physics in the latter two-thirds of the twentieth century. It happened that where Feynman was, there also was the frontier of mathematical physics. He was not the only one at the frontier. Gleick introduces the reader to the pantheon of mathematicians and physicists who provided the crucibles of intellectual criticism in which Feynman's intuitions were tested and modified: Albert Einstein, Niels Bohr, Lars Onsager, Murray Gell-Mann, Sir Frank Dyson, Edward Teller, Robert Oppenheimer, Enrico Fermi, and Paul Dirac.

The book is arranged in chapters that deal successively with Far Rockaway (early promise, chemistry sets, and amateur radio), the Massachusetts Institute of Technology (*Mens et Manue* — Mind and Hands, the importance of physical reality and of a stimulating environment), and Princeton (doctoral study, insights into creativity).

The fourth chapter is titled "Los Alamos." Feynman was the leader of the Diffusion Division, assigned to provide the theoretical understanding of isotope separation and of such things as calculation of safe limits on radioactive mass. The final two chapters, which take up nearly two hundred pages, trace Feynman's intellectual achievements, rivalries, and style at California Institute of Technology and Cornell University. The author captures something of the catalytic effects that Feynman had on his colleagues and students, and of the many faces and forms that creativity can take.

If there are passages in this book where Gleick seems to trivialize Feynman (for example, his bongo drum playing or his relationships with women), it may be because Feynman never took himself very seriously. In the larger context, Feynman's life is an argument that, though license cannot be equated with genius, one should not attempt to apply conventional standards of decorum, or morality, to creative genius. That message may be a difficult one for members of the profession of arms, for we are, by and large, a conventional lot. One can only be thankful for and appreciative of the forbearance of General Leslie Groves of the

Manhattan Project, at the dawn of the nuclear age.

Feynman was full of fascinating contradictions, which Gleick skillfully reports. For example, Feynman was in total awe of nature, and yet he was an agnostic. Although he was an acclaimed teacher, he left only a small legacy of students who studied with him directly —Feynman refused responsibility for individual graduate training, as a condition of his employment. He published reluctantly and did not write about all that he had accomplished. But this was consistent behavior for Feynman. What he treasured most was innovation; he did not regard mere efficiency to obtain known results as a contribution. He detested the formal subject of philosophy, and yet he cleared new paths in the rigorous application of the scientific method.

Gleick shares with us a statement of the great mathematician, Mark Kac. Kac identified two kinds of genius, the ordinary and the magician. The ordinary kind represents attainment and skills that we could all reach if we were ten times better than we are; there are no real mysteries as to methods or processes. But the magician is different. The mind of the magician is incomprehensible and its processes remain hidden, even as we gain understanding of what they have done. Seldom, if ever, do magicians have students, because they cannot be emulated. Richard Feynman, concludes Gleick, "was a magician of the highest caliber." Of himself Richard Feynman said, "I was born not knowing and have only had a little time to change that here and there."

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Sturgill, Claude C. *Low-Intensity Conflict in American History*. Westport, Conn.: Greenwood, 1993. 160pp. $49.95

Claude Sturgill has published the professor's dream, a student syllabus at a nifty price. The rest of us need not bother purchasing, reading, or even looking through this offering. A book this work is not—nor is it, as the title would imply, a history. Its utility can only be judged in a classroom, where, one hopes, Sturgill will provide the rest of the story.

The author's stated purpose is to "organize this ponderous amount of worthwhile news [for] the average person. . . . " To accomplish that, Sturgill applies a checklist, "as a quick method of analyzing where the march of current events is leading," up to the start of a "real war." To assist the reader, he provides a list of nearly every conceivable variation on the term "low-intensity conflict"—fifty in all—and then abruptly produces an eighteen-point checklist, obviously for classroom use.

From that point on, the book meanders haphazardly downhill, drawing primarily on information gained during the author's aperiodic contact with both special operations forces and military educational institutions. The first four chapters include discussions on Mexico, the Philippines, El Salvador, Afghanistan, Nicaragua, Son Tay, Ko Tang, and Iran, with a side trip into terrorism and

counterterrorism. Then in chapter five, Sturgill takes a sharp turn into recent U.S. peacekeeping operations, which is followed by another sharp turn in chapter six, about psychological operations.

By that time, any reader who has stayed the course will be looking for any sign of a road map showing where the author is headed; all signs point clearly to his classroom. Most chapters end with a professional question or two to stimulate student discussion along the lines of "Whom do we blame?" and "Whose fault is it?" Do not forget to consult the checklist for extra credit.

Among the many issues of concern one could have with this work, I will offer four. First, there is little evidence of a theoretical or philosophical framework. Where are Sturgill's references to, or even bibliographic acknowledgment of, Arendt, Brinton, Edwards, Davies, Gurr, Jenkins, the Bells, Hagopian—even Aristotle? The best we get is a two-paragraph rudimentary treatment of "Marxist-Maoist" theory, in his conclusion to the second chapter.

Second, despite Sturgill's close ties to the U.S. military, to the Air University in particular, there is no evidence that he is aware of the 1959–1961 interservice bickering over which service would have primacy for the evolving doctrine of counterinsurgency. "Global Termite Control" (not on his fifty-item list) the Marines called it in the *Marine Corps Gazette* in January 1961—and we are the best termite controllers extant. Nor, despite his close ties to special operations, does he mention or consider the old Special Operations Research Office. Also, for the author to talk about Latin America without mentioning Project Camelot is inexcusable.

Third, how can one speak of low-intensity conflict in American history without mentioning Samuel Adams, and without reference to Samuel Eliot Morison's treatment in his *Oxford History of the American People* of Adams's role prior to the Revolutionary War? The closest the author gets is a brief reference to Rogers's Rangers and the French and Indian War.

Last, and most important, Sturgill has learned none of the lessons of revolutionary and counterrevolutionary war (let us dismiss his fifty-item list for the sake of clarity). He betrays himself at the very end of the book with the damning sentence, in reference to low-intensity conflicts, "Our other prayer should be, of course, that we *win* [Sturgill's emphasis] them all."

In sum, this is not an authoritative work, and it has little redeeming value beyond its intended purpose as a classroom syllabus. It makes in fact a negative contribution to national security and to our understanding of the chaotic forces unleashed by the fall of the Soviet Union, and there is no insight as to how we should respond to events in Bosnia, Yemen, Rwanda, or Haiti.

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Tilford, Earl H., Jr. *Crosswinds: The Air Force's Setup in Vietnam.* College Station: Texas A&M Univ. Press, 1993. 252pp. $30 (originally published in 1991 as *Setup: What the Air Force Did*

in Vietnam and Why, reviewed in the Winter 1993 issue of this journal, pp. 135–6).

The central thesis of this book is that the failure of air power in Vietnam cannot be charged entirely to the politicians or the press. As Tilford sees it, it was the senior Air Force leaders who were largely to blame.

The introduction by Caroline Ziemke, a historian with the Institute for Defense Analysis, highlights Tilford's effort to use history as a learning exercise, in contrast to the official uniformed historians, who, she says, "too often lack the critical analysis necessary to challenge unhealthy myth." While one can only applaud her assertion that "it is more important to understand what went wrong" than it is "to manipulate the record and paint failure as victory," she might better have asked how often the critical passages of official historians have been suppressed by those higher in the chain of command.

Earl Tilford is a retired Air Force major who is currently a historian at the Army War College. He has a well earned reputation as one who speaks the truth as he perceives it, no matter what the personal cost. Unfortunately, in this work, he sometimes weakens the thrust of his argument with too-sweeping assertions.

For example, although the author is undoubtedly right when he says that air power, "while occasionally pivotal, was never decisive" in Vietnam, he also alludes to "the dubious doctrine of strategic bombing." Does he mean that strategic bombing is dubious in every context or only when misapplied against a nonindustrial nation? He also states that half a century has passed since air power was used effectively to win a war; he seems to ignore the highly successful strategic bombing during the Gulf war.

These strictures aside, Tilford homes in on what he regards as the false turns that led the Air Force leadership to act as it did in Vietnam. One important one he identifies is the decline in critical analysis and provocative writing in the *Air University Quarterly Review* that became evident after Defense Secretary Louis Johnson mandated that all articles be screened for "policy and propriety" as well as security; that decision led to intellectual flabbiness in the Air Force and an apparent willingness to fudge official reporting. As evidence of this, Tilford cites the coverup in the early 1960s of the fact that U.S. pilots were actually flying offensive missions, not just training Vietnamese pilots. Whenever a U.S. pilot shot down an enemy plane, credit for the kill would go to "any suitable South Vietnamese pilot" who happened to be in the area.

Widely using end-of-tour reports, unit histories and official studies as well as secondary sources, the author argues convincingly that the United States Air Force's planning, and also its faith in strategic bombing, were seriously flawed in Vietnam. When President Kennedy appointed bomber general Curtis LeMay as Air Force Chief of Staff, the subsequent bombing strategy in Vietnam was virtually foreordained. The strategic persuasion anticipated by LeMay, however, was negated by President Johnson's political constraints, which resulted from his fear of Chinese

intervention; so the bombing campaign switched to a tactical or interdiction role for which it was ill suited. One phase of Operation Rolling Thunder caused an estimated $600 million in damage to North Vietnam; the Air Force incurred a $6 billion replacement cost, with the loss of 990 aircraft and five hundred airmen. While this reviewer is willing to agree that the interdiction bombing campaign was badly handled and, in the final analysis, a misapplication of air power, Tilford's repeated downplaying of the importance of political restraints seems inappropriate. He himself admits that the relatively unrestrained 1972 bombing of the north, designated Linebacker, did bring the enemy to the negotiating table.

Despite the author's indictment of Air Force thinking and its general failure in strategic bombing, he does offer fascinating details, such as the inversion in the ratio of support to bomber aircraft as the conflict developed; the need for improved fighter training, met by Red Flag (the Air Force program to train fighter pilots in the realities of combat); and the need (which still exists) for better distribution of intelligence.

Tilford's summation in the final chapter is worth the price of the book. In it there is one sentence that captures the essence of this work: "In Vietnam the Air Force, like the other services, was rarely outfought, but like the other services it was often *outthought*."

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Dwyer, John B. *Seaborne Deception: The History of U.S. Navy Beach Jumpers.* New York: Praeger, 1992. 151pp. $42.95

Sun Tzu, the great Chinese military philosopher, held that "to be certain to take what you attack is to attack a place the enemy does not protect." The use of deception is as old as warfare and a tactic useful to both attacker and defender. *Seaborne Deception* focuses primarily on the World War II exploits of a group of naval specialists, dubbed Beach Jumpers, who conducted sea-based deception and diversion operations in support of amphibious landings—first against the Axis forces in North Africa and the Mediterranean Theatre of Operations and subsequently against the Japanese as the U.S. island-hopping campaign in the Pacific gathered momentum.

John B. Dwyer is a professional military writer specializing in naval history, although the credits make no mention of any service experience or academic qualifications. In his preface he creates the expectation of an exciting narrative linking the Beach Jumpers of the 1940s to today's stealth practices. However, the ensuing account does not live up to the promise of the preface, which is the best-written part of the book. Dwyer begins by invoking the persona of actor-cum-naval officer Douglas Fairbanks, Jr., whom he largely credits for the founding and success of the Beach Jumpers. Yet we get no larger-than-life portrayal, as the redoubtable Fairbanks fades away by book's end, though he had earned the Legion of Merit in Operation Bigot-Anvil (a diversion designed to tie down German forces in

southern France following D-Day). There are two basic reasons for the disappointment experienced by this reviewer. The first has to do with style and editing, the second with historiography.

Dwyer has mined primarily official command and oral histories; unfortunately, he has retained the dry style of the former. The pages fairly bristle with acronyms, task element designators, small-boat hull numbers, and seemingly unimportant catalogues of names of personnel. There is a superabundance of minutiae; facts which may be significant are passed over in a terse fashion or mixed with apparently insignificant points. For example, we are told that most of the Beach Jumpers officers "graduated the [*sic*] Notre Dame midshipman school." Given that there were several other "midshipman schools" of equal stature in the wartime V-12 program, it is hard to conclude what particular significance this commissioning source had on the subsequent development of the Beach Jumper tactics. Other stylistic shortcomings include the very brief chapters, which lend a choppiness to the overall narrative, and the crude maps, sketches really, which are no real help in following the operations cited. The reader is treated by and large to a concatenation of events and little known place names, which all seem to merge together by the end of the book.

One of the difficulties in writing on classified subjects is access to documentation. The declassification of a great many World War II official records has been a boon to historians, offering a rich lode of new sources and insights into why things happened the way they did. This is particularly true for intelligence methods, the presence of which is preferably unseen in successful operations. Here again Sun Tzu is instructive—"Subtle and insubstantial, the expert leaves no trace. . . . He is the master of his enemy's fate." One need only cite the Special Research histories detailing radio intercept operations that led to the breaking and exploitation of the German and Japanese naval codes. The Beach Jumpers were, in reality, a part of U.S. Navy "spookdom," yet the author does not make clear any of the details of cooperation (or competition) with the Office of Naval Intelligence, the Communications Security Group (forerunner of today's Naval Security Group Command), or the OSS, although he makes passing reference to the British A-Force deception agency. Such an analysis might have proven useful, especially when tracing the post–World War II fortunes of the new Beach Jumpers, namely, the Fleet Composite Operational Readiness Group, now the Fleet Tactical Deception Group. Of course, as we approach the present time, classification issues do arise. Notwithstanding, Dwyer could have said more about the evolution of cover and deception tactics and equipment in Vietnam and during the Cold War competition between the U.S. and Soviet navies. A clear understanding of the organizational lineage of special units is important to understand the relative contributions of these units to fleet doctrine; this book can leave the impression that the Beach Jumpers came, deceived, and went away—which certainly is not the actual case, even though the name has faded from general use.

The bibliography was surprising in its total lack of reference to accepted works on cover and deception, with the exception of Anthony Cave Brown's *Bodyguard of Lies*. Even if the author's intent was merely to illuminate a small, relatively unknown group of personnel, he could have placed their frequently creative and often brave efforts more clearly into context, which would have contributed greatly to making this work a genuine history rather than a mere narrative. Michael Dewar's *The Art of Deception in Warfare*, editor Michael Handel's collections *Strategic and Operational Deception in World War II* and *Intelligence and Military Operations*, and Charles Cruickshank's *Deception in World War II* are but a few of the more comprehensive treatments of strategic and tactical cover and deception operations of which the exploits of the Beach Jumpers were a part.

It is evident that the author holds the Beach Jumpers, especially the World War II prototypes, in high esteem, and it is true that they contributed to Allied victories in Operations HUSKY, AVALANCHE, BRASSARD, and others. Clearly it is no discredit to the individuals involved to express the opinion that the *real* history of their exploits is still out there, waiting to be written.

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Calhoun, Raymond C. *Tin Can Sailor: Life Aboard the USS Sterett, 1939–1945*. Annapolis, Md.: Naval Institute Press, 1993. 198pp. $23.95

To know war may now be of peripheral interest to retired navy captain Raymond Calhoun, but for serving naval officers and petty officers, it is a powerful reason to own and read this book. This unvarnished, true story of what befell the destroyer USS *Sterett* (DD 407) begins in 1939, continues through World War II, and ends in 1947, when the *Sterett* was decommissioned.

With the publication of this book, the Naval Institute Press has done a great service for its readers. From beginning to end, this saga of wartime surface action, and antisubmarine and antiair attacks is told in the plain language of seagoing destroyermen. Some were wounded or killed in action against the enemy. Each and every crewman served with distinction.

To this day the crew meets regularly to recapture their fidelity of purpose to their nation, their ship, and to each other. Calhoun has described well the terror and comradery of the crew of the USS *Sterett*. Here, then, is an excerpt from the opening page of *Tin Can Sailor*.

"The searchlight from the Japanese battleship swept down our column from the *Cushing* to the *San Francisco* where it came to rest. Every ship ahead of the *San Francisco* having been disclosed to the enemy in the one rapid sweep of blinding blue-white light. Everyone opened fire at once. In the waters of Iron Bottom Sound the world exploded. Tracers whistled overhead so close (to the gun director) that I felt I could touch them if I raised my hand. The noise and concussions were deafening but even in that din I recognized the sound of the *Helena*'s 6-inch guns as it blasted a salvo straight into the Japanese searchlight. . . . Enemy

shells splashed on both sides of *Sterett*. Our own tracers hit squarely on the forecastle of our target (the battleship). It was illuminated in a most unique way: the *Sterett*'s guns had been loaded with star shells for our first salvo and we had fired them to hit rather than to illuminate. Hit they did and when they detonated the star shells burned brightly on the deck of the target. She soon caught fire in the vicinity of number two turret. Seconds later, there came a second blinding flash. The whole gun director shook and we were showered with shell fragments. I could feel them and hear them bounce off my padded talker's helmet. One of them neatly clipped the telephone button out from under my finger leaving me just a stub of a pin to press in order to keep my microphone open. I asked whether anyone in the director crew had been hit . . . . 'Yes, I am . . . Yeah, I think so . . . Yes, in the back.' I asked if anyone felt they needed immediate treatment. Instantly, all three answered with a loud and definite NO. So we sat there more alert than ever, looking for fresh targets."

When a sailor meets the enemy face to face, be it in a small or global war, the challenge to personal courage and professional training is direct and immediate. Each hopes and expects to be equal to that challenge. Honest accounts like those of *Tin Can Sailor* depict what shape the challenge may take and reaffirm that the U.S. Navy has met those challenges and prevailed.

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Grove, Eric. *Sea Battles in Close-up: World War II, Vol.II.* Annapolis, Md.: Naval Institute Press, 1993. 224pp. $24.95

In 1988 Eric Grove edited an updated version of a popular collection of monographs, originally published by Ian Allan, Ltd., in the early 1970s and entitled *Sea Battles in Close-up*, which dealt with ten significant naval battles of the Second World War. The motivation for the reissue is that significant new information has recently come to light—particularly relating to Ultra—which renders some of the original work inaccurate. The battles included in the initial volume were intended to "reflect accurately the changing nature of this most challenging of naval wars." In this second volume, the author has chosen nine more episodes. Seven involve sea battles, while two—the campaign against the *Tirpitz* and Operation NEPTUNE, the naval side of the Normandy invasion—concern important naval operations during World War II.

Grove's sustained theme in this series is that "World War II came at a time of decisive change in the nature of naval warfare." This volume focuses in particular on the idea that "the gun-armed warship was no longer supreme." However, as will cheer the hearts of surface warfare officers, "it was still important and sometimes decisive." In examining these propositions, Grove describes the battles of Narvik, Crete, the Java Sea, and Sirte, and various actions of the Malta Striking Forces, in which the roles of surface warships were particularly important. However, to emphasize the huge changes that had occurred in naval warfare since the start of the war,

Grove finishes with the Philippine Sea and Leyte Gulf. In the case of the former, the traditional role of the surface combatant was almost completely supplanted by aircraft, while in the latter, the major roles played by surface combatants in some of the actions came not as a matter of operational intent but in large measure as consequences of egregious American errors.

Each battle or operation is described and analyzed in a separate chapter generously accompanied by excellent, and in many cases not commonly seen, photographs. A generally well done series of charts nicely complements the text. Short technical descriptions of some of the representative combatants involved in each encounter are given in separate boxes.

However, two things in this book are a bit curious. First, Grove's criticism of Winston Churchill's continual interference in operational matters, particularly as First Sea Lord, and his "fixation with a Mediterranean strategy" is almost strident. Churchill's competence as a strategist is a controversial, complex issue and would seem to be beyond the scope of a book that is primarily concerned with sea battles at the tactical and operational levels. Secondly, although the selection of battles was based primarily on the earlier Ian Allan publication, Grove has included original chapters on Pacific battles in both volumes, to illustrate better his underlying themes. But in this volume, dealing with battles in which surface ships were "still important," American readers must surely wonder why Grove did not include any of the classic 1942–1943 surface actions in the Southwest Pacific.

Grove is a well known expert in naval affairs. He has been a lecturer at the Royal Naval College at Dartmouth and a visiting professor at the U.S. Naval Academy. His publications include *Vanguard to Trident* and *The Future of Sea Power*, and he is the editor of the latest edition of Corbett's classic, *Some Principles of Maritime Strategy*.

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Trimble, William F. *Admiral William A. Moffett: Architect of Naval Aviation.* Washington, D.C.: Smithsonian Institution Press, 1993. 338pp. $29.95

I had the great privilege of interviewing General Jimmy Doolittle some years ago, and in his concluding remarks to me he compared General Billy Mitchell and Carl Spaatz. Though Spaatz himself would not have agreed, Doolittle asserted that Spaatz had done more good for the cause of airpower and national security than Mitchell. Doolittle likened Mitchell to an oak tree and Spaatz to the bamboo. When a hurricane came, he said, the oak stood for a long time, straight and tall in the midst of adversity, but ultimately it snapped and was useless; the bamboo, on the other hand, flexed with the wind, except on fundamental principles, and when the hurricane abated it sprang back, straight and tall, to resume the struggle. Spaatz's influence may have been less spectacular than Mitchell's, but his impact was long-lasting. Doolittle asserted that he and many other air

officers agreed that Billy Mitchell had done more harm than good for military aviation.

William Trimble's fine book makes one think that in Doolittle's story, Admiral William Moffett's name could easily have been substituted for Carl Spaatz. Moffett was, no doubt, more outspoken than Spaatz and a better politician than Mitchell, but in the end it was his powerful personality, in the new art of public relations during the infancy of electronic media and motion pictures, that enabled him to survive his mistakes.

Trimble is well qualified for this work. He is a visiting professor at the Air War College and a professor of history at Auburn University, which itself is building a considerable reputation in the history of aviation and airpower. He is the author of two other publications and the authority on the Naval Aircraft Factory, perhaps on interwar naval aviation logistics as well.

Although it is clear that the author admires Moffett, he does not claim that the admiral was the perfect naval officer. As an example of Moffett's flaws, Trimble cites the admiral's inability to admit he was wrong. The author speculates that stubbornness was the reason for Moffett's continued commitment to the rigid lighter-than-air flying craft—he died in an airship crash in 1933. Also, the admiral was inclined only to accept staffers who were yes-men, which, according to Trimble, explained Moffett's apparent inability to get along with one assistant, Captain Ernest J. King. With that said, however, Trimble believes that Moffett was well suited for his time in many ways.

Basic to Moffett's achievement was his commitment to a notion that was an article of faith, even in this reviewer's time, at the Naval Academy: a leader is a naval officer first and an aviator second. Moffett held unassailable credentials in command at sea that demonstrated to the inner circle that this credo was not just lip-service. Although he was the leading advocate of naval aviation, he was nevertheless opposed to the idea that a separate aviation corps be created within the Navy. Moffett believed that aviation and the surface fleet should be part of an integrated whole and that the creation of a separate, elite, aviation corps would only lead the service back to the old internal divisions that had existed between the engineers ("Black Gang") and the seaman officers ("Deck Gang"). However, his strategic and doctrinal thought did evolve as he went along. He started out firmly believing that the role of the aircraft was purely auxiliary, that its purpose was to make the battleship fleet more effective in its gunfire and reconnaissance. It was only after the *Lexington* and the *Saratoga* had been in service long enough to provide the evidence he needed that he came to see aviation as an offensive weapon and increased the dive bomber and torpedo bomber deck loads of the new carriers.

Ironically, Moffett was a direct adversary of Mitchell himself. The combination of his naval-officer-first philosophy and the real, external threat of Mitchell to the Navy made it easier for the most conservative admirals to yield more dollars for Moffett's aviation programs than might have been expected. Moffett was the Chief of the

Bureau of Aeronautics from its founding in 1921 until his death in 1933. These were the pivotal years of the formation of naval airpower: the fundamentals were worked out aboard the USS *Langley*, the U.S. acquired its lead in radial engine development, the great carriers *Lexington* and *Saratoga* were built and brought on line, the catapult was invented, and the dive bomber was conceived and developed—without all of which the war in the Pacific would certainly have been substantially longer and costlier.

In January 1982 I argued in this journal that the subfield of airpower history was an orphan among historians but that there were signs that it was maturing—works dealing with more than the razzle-dazzle adventures of air combat were appearing more frequently. Trimble has shown with this work that interest in airpower history continues to grow.

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Kilduff, Peter. *Richthofen: Beyond the Legend of the Red Baron.* New York: John Wiley & Sons, 1994. 256pp. $27.95

The latest book on von Richthofen is from an author who also did an earlier book on the Red Baron. However, he believes that the end of the Cold War and the resulting access to East German documents justify another visit to this subject so as to resolve various discrepancies in the historical record. This reviewer, however, feels that the book can be justified if only on the basis that it is enjoyable, the work of an excellent writer, and by the fact that memoirs and biographies of prominent aces can sometimes provide insights into air combat that hold true despite the passage of eighty years.

Peter Kilduff is an eminent historian with a long list of credits in both naval and World War I aviation. While his most recent books have primarily dealt with World War I, many readers of this journal have enjoyed his excellent histories of carrier aviation. Kilduff is one of the very few historians that this reviewer can personally attest has examined both the original Royal Air Force (RAF) casualty reports and the original German victory claims. Kilduff is fluent in German and has performed most of his research from the original German documents and archives. In addition, over twenty years ago this reviewer and a select group of New England historians were privileged to spend an evening in Kilduff's basement, examining one of the few complete copies of RAF records that was available in this country. At that meeting Kilduff claimed that he would one day have matched every loss to the victory it symbolized. At least for the combats covered in this book, he has achieved that goal.

Although Kilduff's monumental labor on the "who shot whom" question may be the best yet and possibly provides the final answer, he is too much of a gentleman to denigrate errors in earlier accounts. His approach is simply to state the reasons (such as take-off times, distances, range, and endurance figures, etc.) why a particular

casualty-victory combination may be in error and then to provide concise arguments in favor of his appraisal. These short, pithy analyses (often simply footnotes) are good examples of what can be gleaned from tables of military logs. His analysis and reasoning hold water in each case that this reviewer examined, and his logic is always expressed clearly. This reviewer was reminded of the classic effort of historical research by F.K. Mason in his *Battle over Britain*. Unless one has done historical research, the mental exertion and craftsmanship required may not be obvious; good research combined with good writing can result in a fascinating "detective story." But that is not the sole merit of this work.

Not only is the coverage of Richthofen's career more accurate here than in earlier works, but it also includes such interesting items as Richthofen's Air Combat Operations Manual, dated only two days before his death and written at official request for use in adjoining *Jastas* (tactical flight squadrons) and *Geschwaders* (group squadrons). Kilduff has also newly translated several items of Richthofen's personal correspondence; they provide new insight into both his war tactics and how he viewed his own fame. His views on how his personal life must aid German morale and in the war effort are particularly interesting.

The ace had quite a puckish sense of humor; at one point he fueled the local gossip mill by pretending that his nurse was his fiancée. This reviewer found a number of such incidents both amusing and quite different from what one finds in so many war-hero biographies. Also, the German view of Richthofen's character and of what made him so popular as a commander apparently has deep and valid roots, which have seldom been adequately described in American books. Kilduff clearly admires many of the good qualities of German culture that produced the World War I generation of pilots.

The author was very careful to include the activities of the other members of Richthofen's units and to evoke the atmosphere of German military aviation in World War I. He has provided a context in which Richthofen's actions and decisions can be clearly viewed.

Despite the changes in tactics and weaponry in the past eighty years, certain air combat truisms remain valid. Kilduff learned well from the naval aviators he interviewed about what would be relevant to professional military airmen in a biography. He believed that good memoirs and biographies from the World War I era could be valid professional military reading. He strove to provide such a memoir, and he not only succeeded but also produced a historical work well worth reading.

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Sheely, Irving Edward. *Sailor of the Air*. Sheely, Lawrence D., ed. Tuscaloosa: Univ. of Alabama Press, 1993. 240pp. $29.95

This is neither a biography nor an autobiography but a collection of letters

and diary entries written by one of the U.S. Navy's first combat airmen, Aviation Chief Machinist's Mate Irving E. Sheely, with annotations by his nephew, Lawrence D. Sheely—who has done a superb job of preserving his uncle's letters, putting events in their proper context, explaining unfamiliar terms, and enlightening the reader with details about the names and places mentioned. The author himself made no revisions. Therefore, the original flavor is retained, and it provides us an authentic glimpse into an earlier time.

This work is an account of the experiences of a U.S. navy airman from his enlistment at the beginning of U.S. involvement in World War I through October 1918. Entering the Navy in New York in 1917 as a "Landsman for Machinist's Mate Second Class," Irving Sheely embarked on an adventure that would carry him from his home in upstate New York to Pensacola, to France, England, and eventually to air warfare. In Pensacola there were no uniforms available for the arriving recruits; therefore training was conducted in civilian clothes. After minimal instruction in engine mechanics at Pensacola, the author, along with over half the strength of U.S. naval aviation, embarked as the First Aeronautical Detachment for France, where they received their aircraft and the training necessary to fly them. Chief Sheely was involved in the full range of U.S. naval air activities in the war, flying seaplane patrols from French bases, bombing missions across the battle line, and air-to-air combat, and he experienced the effect of being bombed and shelled in return. Living conditions at the French bases were initially primitive, and food was often in short supply.

However, the war was not "all work" for Sheely, and through his letters we are also given glimpses of dances in Pensacola, leave in Paris, picnics in Cannes, and dining with a rich English family.

Aerial scouting, bombing, patrolling against enemy submarines, and fighting between aircraft were military activities that emerged now for the first time in history, and *Sailor of the Air* aptly describes them on both personal and professional levels. The steady stream of aircraft crashes and deaths (the vast majority of them not combat-related) which punctuate Chief Sheely's letters serves to underline the very great dangers simply of flying on a regular basis in that period.

An additional bonus is an appendix containing a reproduction of Sheely's training notebook. It offers a unique, first-hand look at the technology and air gunnery of the time, which may be of more than casual interest to serious students of World War I aviation and those interested in restoring or reproducing period aircraft.

For some, this work may prove tedious because of its personal nature, which is both the strength and the weakness of the book; patience is required to glean the naval aviation information from the family chit-chat. Furthermore, Sheely's view of events was necessarily limited by both his geographic location and his junior status. However, these limitations are more than offset by his close association with unfolding events and his

practice of recording them as they happened.

This is an informative, readable, and unusual insight into naval aviation's first test under fire. I recommend it to both serious students of aviation history and to those interested in a more personal look at the period. Lawrence Sheely has performed a service in preserving his uncle's thoughts for posterity and, through his own research and commentary, making them accessible to future generations.

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Trask, David F. *The AEF and Coalition Warmaking, 1917–1918*. Lawrence: Univ. Press of Kansas, 1993. 236pp. $29.95

Writing a generation after the conclusion of the Great War, a number of historians, most notably Harry DeWeerd and Edward Coffman, concurred with John J. Pershing that the battlefield performance of the American Expeditionary Forces (AEF) assured victory for the Allied and Associated Powers. In contrast to such traditional historians, David Trask echoes a growing revisionist trend arguing that America's major contribution to the Allied victory was not in combat operations but the ability to provide the margin in manpower and material that allowed French generalissimo Ferdinand Foch to wage his war of attrition successfully.

Based largely on a selection of representative published sources and authorities, including the seventeen-volume American documentary collection *United States Army in the World War 1917–1919*, Trask's latest work views the war from the perspective of the highest level of field command—that of Foch for the Allied and Associated Powers, and General Erich Ludendorff for the Central Powers. Not surprisingly, then, Trask focuses on what he terms "grand tactics," the application of military power by large organizations against enemy forces in the field to fulfill a strategic design. Trask's concern is with the role of inter-Allied theater commanders in operations on the Western Front.

Throughout the text, the author convincingly argues that American military unpreparedness prevented a significant contribution to battlefield success until the planned offensive in 1919. In the interim between the arrival of the 1st Division in the summer of 1917 and the armistice, Pershing's resistance to amalgamating American forces into the Allied armies relegated the AEF to a supporting role in combat operations. Moreover, Pershing's often stormy relationship with the Allied High Command hindered rather than enhanced the ability of the Allies to conduct coalition warfare.

Americans long enamored with glowing reports of the AEF's martial prowess and the leadership of its commanding general will find Trask's account most unsettling. The author cites primary German sources stating that American tactics were uninspired and that although the individual doughboy was as heroic as his counterpart, American leadership was sorely lacking. In short the AEF conducted itself as might be expected of an army that

had little experience and was thrown into battle prematurely. In Trask's eyes, Pershing was surely a flawed commander, one whose star might have fallen had the war continued into 1919.

It is Foch, rather than Pershing, who emerges as the hero of this volume. Foch realized that attrition and not maneuver would win the war, after Germany expended its last reserves in Ludendorff's abortive spring and summer offensives of 1918. Through a series of counteroffensives and eventually a general offensive, he made the most effective use of his national contingents, including the AEF, despite the difficulties that arose in dealings with what Trask calls the timorous French commander, Henri Petain, the unimaginative Douglas Haig of the British Expeditionary Forces, and the stubborn Pershing.

In the final analysis, Trask puts the performance of the AEF in proper perspective. Its greatest contribution to ultimate victory lay in its presence, which allowed release of veteran Allied divisions from tranquil sectors and gave Foch the superiority in manpower he needed to fight his war of attrition and sustain his coordinated operations in late 1918. It was those offensives, not the AEF acting alone, that broke the back of the German army and the will of the German nation to prosecute the war.

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Gardiner, Robert J. and Greenhill, Basil, eds. *The Advent of Steam: The Merchant Steamship before 1900.* London: Conway Maritime Press, 1993. 190pp. $50

This is the fifth volume of Conway's ambitious, twelve-volume *History of the Ship* series, and like its predecessors it is worthy of more than a casual glance. The editors look at the early development of steam propulsion in merchantmen from its introduction as a motive force until its supplantation as a form of propulsion power. The publisher has once again brought together an outstanding and well known team of authors, including the Rev. E.C.B. Corlett and Dr. Andrew Lambert, under the leadership of this volume's reputable consultant editor, Dr. Basil Greenhill.

The book is divided into ten chapters, which for the sake of convenience can be separated into two distinct groups. The first, comprising the first five chapters, outlines the evolution of steam in shipping, while the remaining five chapters can be described as providing a technical history of that evolution. The editor's approach is chronological, but there is a fair amount of overlap between the chapters. Each chapter is well written—even the more technical ones are a joy to read—and they all bear the stamp of thorough and devoted research. Readers may be surprised at Greenhill's assertion that the *Savannah* actually made most of its famous double crossing of the Atlantic under sail, not steam power. Another interesting point, raised in the third chapter, is that Robert Fulton's first steamship was never named the *Clermont.*

All of the chapters are profusely illustrated with line drawings (most, unfortunately, with no indication of scale) and reprints of contemporary drawings, photographs, and comparative tables. Some of the latter provide a statistical summary of steamships relevant to each particular chapter, while others compare such important details as engines, voyages, areas of service, and a host of other data. Each chapter is footnoted and supplemented by an excellent selected bibliography; the index is accurate and useful. Robert Gardiner, the consultant editor of this series, has thoughtfully provided a brief glossary of naval terms and abbreviations, and a preface.

Given the number of contributors, one is surprised by the degree of agreement regarding the main themes: the surprising staying power of sail-powered vessels; the relatively slower adoption of steam by merchant companies, as opposed to navies; and steam's long gestation period in the American inland and the British coastal waterways. According to the editors, all three points can be explained by cost-accounting methods—the rate of return offered by sailing ships and steamships—a factor that national navies could afford to ignore, because their prime goal was not the pursuit of profit. Regarding the final theme, because of the very nature of their technology, the early steamships were originally confined to coastal and river areas; steamships only supplanted sailing ships when they became ocean-capable and more profitable. The slow improvement in the technology of engines, propellers, and hulls (iron and steel) had a gradual rather than a revolutionary effect on shipping. This partially accounts for the fact that wind-driven merchant ships survived well into the first half of the twentieth century.

Overall, Conway has again provided us with an outstanding reference work that will benefit all but the most dedicated specialist. It is a welcome addition to this series and is highly recommended to readers with an interest in the history of these ships.

PETER MISPELKAMP
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Moncure, John. *Forging the King's Sword. Military Education between Tradition and Modernization: The Case of the Royal Prussian Cadet Corps, 1871–1918*. New York: Peter Lang, 1993. 323pp. $58.95

The Prussian Cadet Corps was founded by King Frederick William I in 1717 and was abolished in March 1920 under Article 176 of the Treaty of Versailles. In time, a system of eight preparatory schools fed into the Central Cadet School at Berlin-Lichterfelde, which annually supplied about 250 officers (or one-third of commissions) to the regular army. Because of the destruction of the cadet corps records during the Second World War, Moncure meticulously used fragmentary evidence to reconstruct a data base on 11,157 cadets for the years from 1871 to 1918.

Cadets entered schools at age eleven (much younger than their counterparts at St. Cyr, Modena, West Point, or Sandringham), and the cost of their

education was about 6,000 marks (three times the annual income of a skilled industrial worker). By and large, the cadets were Protestants (a baptismal certificate was required), came from the traditional old provinces of Prussia, and were the offspring of military, bureaucratic, and landowner families. Homogeneity was thus assured. While the Prussian nobility provided 62 percent of cadets in 1871, that figure slipped to 23 percent by 1918. Hazing was a fact of life. Homosexuality must surely have existed, though it is relegated here to a footnote. Education was rudimentary and not too demanding. General Emory Upton in the 1870s discovered that the three-years of mathematics offered at Lichterfelde were taught at West Point in a single year. In the Prussian Army, formal education lagged far behind building "character." Finally, commissioning into a regiment depended less on merit than on blood and influence: Moncure discovered that the officer corps of no less than ninety regiments remained exclusively noble during this time. Put differently, commissioning into a regiment was undertaken primarily "to protect the social position of the nobility" and to "assure the identification of that group to the crown."

Moncure concludes that the cadet schools produced "doers" rather than thinkers and that their graduates offered skills on the battlefield rather than in a military, strategic, or personal political-ethical context. Throughout this period, the cadet schools faced a constant conflict between the forces of tradition and the dictates of the military profession. Moncure argues that they did about as well as their equivalent in the West.

I have two criticisms, one minor, one more serious. This book is a revised version of the author's 1991 Cornell University dissertation and could have benefited from another critical revision. The bibliography especially needs work to bring it up to professional standards. On a more substantive note, Moncure alludes to the historiographical debate over whether the army imposed its traditions and mentality on the middle-class cadets that it accepted (see Craig, Meier-Welcker, and Kehr) or whether those bourgeois recruits reformed the very institution that had attracted them (Eley, Blackbourn). Unfortunately, Moncure offers no insight into this critical question.

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Trulock, Alice Rains. *In the Hands of Providence: Joshua L. Chamberlain and the American Civil War.* Chapel Hill: Univ. of North Carolina Press, 1992. 569pp. $34.95

In the spring of 1862 that most quintessential of Yankee volunteer regiments, the 20th Maine, left Portland to join the Union Army. Its lieutenant colonel, Joshua Lawrence Chamberlain, had a few weeks before been a thirty-four-year-old professor of rhetoric and oratory at Bowdoin College. A year later, Chamberlain and the 20th Maine would win immortality at Gettysburg's Little Round Top.

Chamberlain, who was a Maine-bred theologian, academic, and citizen-soldier, led his regiment through the

battles of Antietam, Fredericksburg, and Chancellorsville; in the terrible, bloody summer of 1863 they went with Meade to Gettysburg to meet Lee. On the afternoon of July 2nd, Little Round Top was the left flank of the Union Army, and it was unsecured. Because of the danger should the Confederates seize it, a Federal brigade went up the hill; its commanders placed the 20th Maine at the far left flank and told it to "hold that ground at all hazards." When the Confederate right slammed into them at five o'clock that afternoon, Chamberlain and his men held. Withstanding what one called "the most destructive fire I have ever seen," the regiment beat off three rebel attacks. Within an hour, it had lost a third of its muster and was nearly out of ammunition. Fixing their bayonets and charging, the 20th drove the Confederates from the hill and captured more of the enemy than its own numbers.

What the 20th Maine and Joshua Chamberlain did has become so much a part of American history and lore that their monument at Little Round Top is now the most visited place on the Gettysburg battlefield.

A year later Chamberlain was a brigade commander at Petersburg. He led the assault on Rives' Salient and was shot through the hips with a minie ball—a wound that was to plague him for the rest of his life. Grant promoted Chamberlain to brigadier general that day. After a six-month convalescence, and still unable to walk more than a hundred yards, he placed himself "in the hands of providence" and rejoined the army. Wounded again while leading his brigade at Quaker Road, he was promoted to major general.

In recognition of his gallant service—twenty-four battles and six wounds—Grant chose Chamberlain to be the ranking Union officer at Appomattox when Lee's Army of Northern Virginia laid down its arms. Chamberlain, a Victorian with a fine sense of the fitness of such things, brought his men to the salute as the first Confederate, General John Gordon, and his ragged division passed by. This gesture, long remembered by men on both sides, moved Gordon later to call Chamberlain "one of the knightliest soldiers of the Federal Army."

After the Civil War, Chamberlain returned to the Bowdoin faculty and eventually became president of the college. He also served four terms as governor of Maine. His life was marked by the character and integrity that epitomizes the best of America's citizen-soldiers.

One of the great and timeless strengths of the American experience is that we produce such men.

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Tunstall, Brian. *Naval Warfare in the Age of Sail: The Evolution of Fighting Tactics, 1650–1815.* Nicholas Tracy, ed. Annapolis, Md.: Naval Institute Press, 1991. 278pp. $48.95

The posthumous publication of Brian Tunstall's history of naval tactics is an important event in naval historiography. Scholars and serious students of tactics should not be misled by its large

format and coffee-table appearance; it is far more than a book for ship-buffs. To understand the book's contribution, however, one must understand its history.

Brian Tunstall was the son-in-law of Sir Julian Corbett, the famous British naval historian, and in his own right a distinguished naval historian who taught at the Royal Naval College at Greenwich and at the London School of Economics. Starting with the volumes that Corbett had published with the Navy Records Society (*Fighting Instructions 1530–1816* [1905, reprinted 1971], and *Signals and Instructions, 1776–1794* [1908, reprinted 1971]), Tunstall wrote of naval tactics and its development in the age of sail, making detailed analyses of newly found signal books and instructions—the bulk of which was completed in the 1930s and 1940s. His final work was contained in three large volumes of typescript, and although it was a significant improvement on much of the information that Rear Admiral S.S. Robison had compiled from secondary sources (*A History of Naval Tactics, 1530–1930* [1942]), it remained unpublished for years.

While Tunstall was certainly an important naval historian, one must recognize this volume as one that is both new and dated. When it was written, however, it was a comprehensive synthesis of the age of sail. In the light of work that has appeared since Tunstall wrote, we still need a thorough and modern synthesis of this complex and difficult topic.

Nicholas Tracy has skillfully edited the original long and detailed narrative into a readable text that is beautifully illustrated with prints from collections of the National Maritime Museum at Greenwich.

JOHN B. HATTENDORF
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I can see plenty of changes in weapons, methods, and procedures in naval warfare, brought about by technical developments; but I can see no change in the future role of our Navy from what it has been for ages past for the navy of a dominant sea power—to gain and exercise the control of the sea that its country requires to win the war, and to prevent its opponent from using the sea for its purposes. This will continue so long as geography makes the United States an insular power and so long as the surface of the sea remains the great highway connecting the nations of the world.

Admiral Raymond A. Spruance, USN
President of the Naval War College, 1946–1948