1995

Autumn 1995 Full Issue

The U.S. Naval War College

NAVAL WAR COLLEGE REVIEW

AUTUMN 1995

NAVAL WAR COLLEGE REVIEW

Our Cover: USS *Enterprise* (CV 6), photographed from the rear seat of an SBD Dauntless in July 1944 during landing operations in the Marianas (National Archives photograph NA-80-G-281801). For more on our recognition of the fiftieth anniversary of the end of World War II and about our cover, see page 87.

2   Contents

✳

World War II was names and dates and battles—the tide of history rolling to the flood;
yet above all it was human history, personalized narrative, the history of the tens of millions
who fought or served, who conquered or who lost.

Hanson W. Baldwin

✳

> *We all live in this hemisphere; that can't be changed. Although some of us live in the North and some in the South, we are all Americans.*

President's Notes

THIS WILL BE MY LAST OPPORTUNITY to communicate with you via the President's Notes. By the time you read this issue of the *Naval War College Review*, I will have departed the College, following a wonderful five-year tour that was one of the true highpoints of my career. Barbara and I are off to DuBois, Pennsylvania, where I will serve as the Campus Executive Officer (CEO) of the Penn State University campus in that city.

In one of the first President's Notes, which appeared shortly after my arrival in Newport, I wrote of the great importance of Latin America to the United States and pointed to the fact that policies and restrictions adopted by this country on providing equipment and training had caused the once close military-to-military ties between our nations to erode. During the last five years I have travelled to several South American countries, hosted scores of visitors from the southern part of this hemisphere and participated in four meetings of the

---

Admiral Strasser holds a B.S. from the Naval Academy, two master's degrees from The Fletcher School, Tufts University, and from the same school a Ph.D. in political science. He graduated from the command and staff course at the Naval War College in 1972. He commanded the USS *O'Callahan* (FF 1051), Destroyer Squadron 35, Cruiser-Destroyer Group Three, and Battle Group Foxtrot. His seven years in Washington included two years in the office of the Chairman, Joint Chiefs of Staff.

presidents and directors of the war colleges of the Americas. All of these experiences served to reinforce my original judgments.

I am convinced that the nations of South and Central America want to strengthen our friendship. This is particularly true of their navies. Senior officers from the navies throughout this region—and I have spoken to representatives of all the South American navies and most of those in Central America—speak unreservedly of the need for closer ties between our services.

When I first travelled to Chile, in the summer of 1962, I embarked for short periods at sea on a cruiser and a submarine, both of which had been purchased from the United States. This was true of much of the Chilean fleet. All the senior officers I encountered had been trained in our country, and spare parts to keep their ships and aircraft operating came from the United States. The relationship between our navies was warm and friendly, and the benefit of close ties was acknowledged by all. The same feeling was very much in evidence the following year when I travelled to Argentina to join that country's sail training ship, ARA *Libertad*. The officers I met during that six-month exchange tour had been trained in the United States and were proud of it. They spoke warmly of the time they had spent in our country and of the friendships they had developed here.

Last year, some three decades later, I returned to Chile to attend a conference hosted at the Chilean Naval War College in Valparaiso. As I stood in the Director's office looking out at the Chilean fleet, I was deeply saddened by the changes that had occurred during the intervening years. Not a single ship before me had been constructed in the United States; most were of European origin, while some had been built in Chile. Training on the ships and their systems was done not in this country but in the nations where they had been built.

The day prior to writing this essay, I bade farewell to an Argentine com- mander who was completing a two-year tour here at the College. He said how pleased he was to have had this experience, not having been in the United States previously—his duty overseas had all been in Europe. Years ago it would have been unheard of for a senior officer in a major South American navy not to have been trained in this country; today it is commonplace.

How did this happen? It occurred due to misguided policies that sought to limit the ships and other military equipment that could be sold to countries in the southern part of this hemisphere, in the erroneous belief that this would prevent such weapons from being acquired at all. As we have seen, it did not, and we are today paying the price in terms of diminished relationships.

There is now, however, a window of opportunity to rectify our errors of the past. With one exception (Cuba), all the countries of this hemisphere have democratically elected governments—some of them fledgling democracies to be sure, but democracies nonetheless. We have pushed hard to assist in this
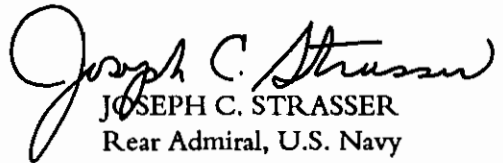
process. The time is right to cement our political, economic, social, *and military* ties with the countries of greatest importance to us . . . those in our own hemisphere.

Most of our friends to the south would be very receptive to a change in United States policy. Senior military officers throughout the region would welcome, and in many cases are themselves actively seeking, closer ties with the United States. They are looking for a hemispheric leader who will pursue a consistent and reliable policy of friendship and cooperation, not one who turns the spigot of camaraderie on and off.

We all live in this hemisphere; that can't be changed. Although some of us live in the North and some in the South, *we are all Americans*. Let's work together to strengthen our ties and strive to restore the close military-to-military bonds we once had.

I appreciate very much your support of the Naval War College and the *Review* during my tenure as President. Good luck and God bless you all.

JOSEPH C. STRASSER
Rear Admiral, U.S. Navy
President, Naval War College

Institutionalizing Innovation
Objective or Oxymoron?

Captain Bradd C. Hayes, U.S. Navy

I N JUNE 1994, AT THE NAVAL WAR COLLEGE, the Secretary of the Navy
gave an impassioned speech about the importance of the Navy being open
to innovative ideas. He related Thomas Edison's experience during the First
World War, when Edison offered the Navy about forty-five "perfectly good"
inventions only to see them all "pigeonholed" by its bureaucracy. The Secretary
concluded, "The bottom line is that our Navy today cannot afford to fail when
it comes to innovation. We cannot afford to be viewed as a 'closed corporation'
unresponsive to new inventions—both in new technology and in strategic
thought."[1]

Being open to new ideas is important because many people believe that the
American military is on the verge of a revolution in military affairs (known as the
RMA) that will dramatically alter the face of warfare.[2] Revolutions in military affairs
occur when the artifacts of war become radically more technologically sophisticated
and doctrines and organizations are changed to take full advantage of them.[3]

To say that the naval service should be open to innovative ideas is all well
and good; but how is an institution to foster innovative technological, doctrinal,
and organizational change? More to the point, can innovation be institutional-
ized at all?

Secretary Dalton reminded his audience that innovation is not dependent on
the size of the budget—a fact Lord Rutherford recognized in the 1920s: "We

Captain Hayes has served as Deputy Director of the Strategic Research Department
of the Center for Naval Warfare Studies, Naval War College, since August 1992. Before
assuming that position he was the Strategy and Policy Officer for the Commander in
Chief, U.S. Naval Forces Europe, in London. Previous appointments included com-
mand of Helicopter Antisubmarine Squadron Six aboard USS *Enterprise* (CVN 65) and
a tour as a Federal Executive Fellow with the RAND Corporation in Santa Monica,
California.

The views contained in this article are the author's and do not necessarily reflect those
of the U.S. government, the Department of Defense, or the U.S. Navy.

are short of money, so we must start to think." The Secretary of the Navy, quoting Stephen Rosen, noted in his address that "rather than money, talented military *personnel, time,* and *information* have been the key resources for innovation."[4] These three factors are this article's concerns—because they are elements (Congress controlling the budget) over which the Department of the Navy has the most influence.

One matter of vocabulary should be clarified at the outset. "Innovation" in isolation makes no more sense than, say, "beauty." That is, beauty, of itself, is meaningless: there are beautiful paintings, flowers, people, and so on, but except in connection with an object, the word "beauty" has no meaning whatsoever. The same is true for innovation; we must speak of technological innovation, doctrinal innovation, organizational innovation, etc. Even though we will be generalizing about innovation and innovators, it will be important to keep this distinction in mind.

An institution cannot successfully order a pedestrian thinker to be either creative or innovative. Author and media critic Edwin Diamond argues that organizations can only "provide the conditions where creativity flourishes. Such conditions include strong staff morale, the feeling that someone is listening and the conviction that good work will be rewarded."[5] An institution can provide this kind of care for innovators only after identifying them as such. But, much like decorations for bravery or distinguished service, the label "innovator" is not usually awarded until the sequel is known, well after the fact. Those whose innovations are adopted (i.e., the winners) will be seen as intelligent and progressive; the "losers" will be placed in one of two categories. First there will be those who opposed what turned out to be successful innovations; they will normally be viewed as cautious, conservative, even reactionary (traits that many believe the military actively fosters). But in fact these individuals play a very important filtering role—unless one asserts the notion that all ideas have equal merit.[6] The second sort of "losers" are those who proposed innovative ideas of their own but failed to gain acceptance for them. Even if their ideas were genuinely innovative, these people are more likely to be considered crackpots than innovators. Only winners are innovators.

Conventional wisdom says that the true innovator is to be found outside the military mainstream and is generally considered anathema by its hierarchy. Of course, this thought is neither new nor unique; Machiavelli wrote centuries ago that "there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do

well under the new."[7] For that very reason a solitary innovator rarely, if ever, succeeds.

Success comes, rather, from small but effective groups of like-minded people who together pursue innovative ideas. Therefore, one way to foster innovation is to create organizations in which small groups of individuals can freely and frankly exchange ideas and in which mechanisms exist to ensure that meritorious ideas come to the attention of policy makers. There are several organizational models for such environments.

The first is the "ad hoc" group, one that assembles to consider a specific problem. A recent naval example was the Naval Force Capabilities Planning Effort (NFCPE) working group, which convened in 1991 to help develop a vision of the future of the Navy and Marine Corps in the post–Cold War world.[8] The group consisted of about twenty mid-grade officers (i.e., captains, colonels, commanders, and lieutenant colonels) and several civilian analysts, with a group of one and two-star flag officers providing oversight. The eventual product of its effort was the well known white paper ". . . From the Sea."

The concepts of that paper were first introduced to a large assemblage of three and four-star admirals and generals in a workshop at the Marine Corps Base in Quantico, Virginia. One admiral declared that he saw "no low-hanging fruit"— that is, no new, interesting, or innovative ideas—and another complained that "we did not have to go to Quantico to *not* have a vision." Nevertheless, in the years since then, the ideas represented in ". . . From the Sea" (which was generally well received in its published form) have not been substantially furthered. In fact, its recent successor, "Forward . . . from the Sea," offers little new thinking and appears actually to have abandoned some of the more innovative concepts of the original.[9] That is, ". . . From the Sea" promised closer integration between the Navy and Marine Corps (especially in the area of fixed-wing aviation), implied that new command relations would be worked out, and suggested that new ways of deploying forces (e.g., naval expeditionary forces and naval expeditionary groups) would be developed. The changes have been slow in coming.

What does this experience say about support in the naval service for either innovators or their ideas? Certainly it shows the difficulty that large, hierarchical organizations have in changing past practices. One reason that ". . . From the Sea" has not brought about all the changes anticipated from it may be that it never really garnered the top-level support it needed. Although the NFCPE working group was visited by the Secretary of the Navy, the Chief of Naval Operations (CNO), and the Commandant of the Marine Corps, the Secretary and CNO were soon after embroiled in the Tailhook fiasco, which led to the resignation of the Secretary and consumed the remainder of the CNO's term in office. When ". . . From the Sea" was eventually released, it was by a new

Secretary who would himself shortly be swept from office with the Bush administration. His and the CNO's successors, then, had no "ownership" in the ideas of the white paper; therefore, no one should be surprised that the agenda it laid out was later altered.

The point is that without high-level support, ideas developed in the middle ranks by an ad hoc group risk being stillborn. One of the most successful such groups in the Navy was Project Sixty, established by Admiral Elmo R. Zumwalt, Jr., when he became CNO. Its charter was to organize a "brainstorming process addressing questions of 'What might be done? What can be done? What should be done? What will we do?'"[10] Although Project Sixty represented only a part of Admiral Zumwalt's effort to institutionalize innovation, it was one of his more successful experiments. In general, however, the potential for innovation from this model is limited by the short life-span of such teams.

Another model is a more enduring version of the ad hoc group, best represented in the U.S. Navy by the CNO's Strategic Studies Group, or SSG. In 1981 Admiral Thomas B. Hayward, then CNO, became convinced that too many naval officers were concerned about "programmatics" (the quasi-political process of bringing weapon systems, especially, into service) and not enough were thinking about strategy. To remedy this situation, he selected a number of captains and commanders he believed had potential to become flag officers, sent them to the Naval War College, charged them to think broadly about strategy, and made sure their ideas were heard by the naval leadership. As a result, early SSGs contributed significantly to the Maritime Strategy. Later SSGs perceived that naval forces spend the majority of their time responding to crises; when the Berlin Wall fell, former members of those groups, many of them now in joint billets, were able to draw upon their studies, whose concepts eventually emerged in the Joint Staff's "flexible deterrent" options. Recent SSG members have been drawn not only from the Navy but also the Marine Corps and Coast Guard.

The SSG has several strengths as an exemplar for innovation. First and foremost, it selects exceptional personnel; to date, approximately forty of its members have been promoted to flag rank, including two four-star and six three-star officers.[11] Second, SSGs are given a substantial amount of time to be creative, one year (though still not long enough). Third, as currently structured, the program assures members access to a vast amount of information (which is one reason it was established in a university setting). Fourth, there is a deliberate effort to expose members to experts in many fields, both civilian and military. Finally, the group is able to test and "game" its concepts rigorously.

A third model is represented by the CNO Executive Panel. This standing group collects leading business figures and academics, as well as former flag officers, to provide the CNO a "different" view of where the Navy should be headed. The Executive Panel has been a superb source of independent thinking.

For example, the Tomahawk cruise missile was being developed strictly as a strategic nuclear weapon until the program was briefed to the Panel; Albert Wohlstetter, one of America's preeminent strategists and a member of the Panel, thereafter argued that the Navy should pursue a conventional variant and was able to convince the CNO.[12] Other programs either initiated or promoted by the Executive Panel include the basic idea for the Strategic Defense Initiative, naval satellite communications, and the Space and Electronic Warfare concept.[13] The strength of such a panel lies in the quality and variety of its personnel as well as in its essentially permanent nature. Although members of the Executive Panel cannot devote full time to its efforts, their deadlines are generally self-imposed; they have a remarkable luxury of time. Also, the variety of backgrounds represented by its members makes available a corresponding diversity of information.

A final model is the professional "think tank," represented within the Navy by such organizations as the Center for Naval Analyses (CNA), laboratories, test facilities, and institutions like the Center for Naval Warfare Studies (at the Naval War College), Strike University, and certain program development offices. (A good example of the last was the office that developed the truly revolutionary Polaris force;[14] many of the lessons learned from the Polaris experience were incorporated by Rear Admiral Wayne Meyer in the similarly innovative Aegis combat system, which has forever changed the way navies fight.[15]) Many warfighting concepts, weapons, damage control designs, and so forth, have been developed at these institutions. The virtues of the think-tank model include the ability to attract bright people, who are given relatively unlimited time and access to extensive information.

None of these achieves the ideal; each has drawbacks. The primary weakness of the ad hoc working group model is, as noted earlier, its transitory nature. It is difficult, if not impossible, to pursue concepts developed by such groups, especially if they lack (or lose) a powerful senior advocate. Project Sixty is the perfect example, as Jeffrey Sands, an authority on the Zumwalt years, acknowledges: "With only a single four-year term in office, a CNO cannot institutionalize change on his watch alone. . . . But it is clear from the Zumwalt experience that the strategic agenda has to be vested both into the organizational structure and the process of decisionmaking."[16]

The drawback of the SSG model is its fixed one-year time frame. By the time participants get settled, receive their collective assignment, and familiarize themselves with the issues, they have little time actually to think and write before having to brief their results. Overcoming this shortcoming would require overlapping assignments of eighteen months or two years. The primary weakness of the Executive Panel model, which has been such a fruitful source of innovative ideas, is that it is, after all, an "outside" organization; its ideas are likely to confront

considerable opposition from within the service. For example, it took nearly seven years to convince the Navy to invest heavily in satellite communications.[17]

Andrew Marshall, Director of Net Assessment for the Secretary of Defense, has commented that one weakness with the think-tank model is that it is too project-oriented; he recommends creating organizations "like RAND of the 1950's." That was a time when RAND analysts could congregate in the halls and hold impromptu brainstorming sessions.[18] Today, at RAND as elsewhere, dollars now drive research agendas and the "bottom line" often discourages such non-directed thinking. Marshall believes that given the proper financial backing, RAND, CNA, and other think tanks could recreate this ambiance.

Organizations that fall under this model and have military personnel assigned (such as program development offices) can experience dramatic and generally negative effects on innovation from service rotation policies. Retired Rear Admiral Ronald Kurth, former President of the Naval War College, argues that by routinely rotating program leadership "the Navy incentive system exerts conservative control over innovation. Quantum-jump innovations, which may destabilize the organization, usually require a span of attention over a considerable length of time. . . . The length on the job for an innovative departure may be undesirable" for personal career development.[19]

What makes any of these models work is the ability to attract the right people. But, as it turns out, frequently the right people do not remain "right." Once an idea of theirs has succeeded, innovators (like revolutionaries) often become reactionaries. Admiral Hyman G. Rickover is probably the most celebrated case of an innovator-turned-reactionary: by the end of his career, he seemed as much an impediment to progress as he had once been a supporter of it. As a result, there is today an institutional reluctance to leave a program manager in charge very long. The legacy of this "Rickover Syndrome" on the naval service has been a stifling of innovation.

Successful and continuous innovation, then, is never easy to achieve; but there are techniques that innovators can employ to reduce opposition to their ideas. Kurth contends that "the politics of *incremental innovation* are comparatively free of conflict . . . [while] the politics of *innovative departure* are likely to be complex. . . . The problem is that more rapid acceptance of radical innovation would require a change in basic service values and attitudes or require easier access to political arbitration. The services resist dilution of their ethic, and the public and political leaders are disturbed by inter-service and intra-service conflicts. . . . There is a much more comfortable existence within the organization for those who make the existing system work better rather than attempt its displacement."[20] That is, practical visionaries have a better chance of selling their ideas if they move slowly.

Herein lies a dilemma, however. One scholar in this field asserts that attempting to avoid rivalries may actually discourage innovation. He believes that innovation is fostered by ideological struggles within and among the services.[21] The full implication of this hypothesis should not be missed by those who encourage ever more jointness in doctrine, budgets, and organizations: in such areas as professional education, research and development, and war gaming, allowing the individual services to explore different (often competing) concepts is the best way to encourage innovative thought. This assertion, appearing as it does in a war college journal and coming from a member of a war college faculty, could be taken as both parochial and self-serving—but others share this belief. Paul Bracken, a highly respected defense analyst and commentator, considers that some types of organizations (represented by the models previously discussed) within the Defense Department bureaucracy—specifically, national laboratories, test centers, and war colleges—are more likely than others to have an atmosphere conducive to innovation. Andrew Marshall agrees and recommends that the services' best and brightest officers "spend more time at war colleges . . . in wargaming and in research programs" and be given "credit for this in their careers; it has to be a way to the top for them."[22]

There are signs that those very institutions may be weakening. These indications include consolidation of national laboratories, war college budget cuts, and the fact that more military officers staffing the war colleges retire than are promoted—just the opposite of what Marshall recommends. Bracken asserts that "these centers need support and protection from immediate pressures" and that steps need to be taken "to strengthen independence and tolerance for diversity" within them.[23]

Conspicuously, but not surprisingly, absent from the list of organizations that promote innovation are the doctrine commands. Bracken believes these organizations and the doctrines they promote are more "likely to perpetuate current concepts . . . than explore fundamentally new ways of doing things."[24] Robert S. Wood, Dean of Naval Warfare Studies at the Naval War College, concurs, because, as he observes, doctrine is made up of fixed principles that border on dogma—whereas innovation represents just the opposite.[25] Asking the doctrine commands to promote established doctrine while simultaneously trying to change it places them in an untenable situation akin to the biblical image of a kingdom divided against itself.[26] This problem is made even more difficult by widespread naval suspicion of anything labelled "doctrine." Indeed, Wayne Hughes of the Naval Postgraduate School (and author of the well known *Fleet Tactics*) has argued that a principal responsibility of the Naval Doctrine Command should be to consolidate the numerous existing expressions of doctrine into a few coherent publications.[27] While this recommendation

undoubtedly has merit, it would mean that the Naval Doctrine Command could not be a source of much innovative thought.

Yet somehow *new* doctrine must be developed. As Marshall urges, "The most important thing that we can focus on in the next several years is the investigation of, and experimentation with, novel concepts of operation and new organizations to exploit the technologies available now and likely to be available in the next 20 years."[28] We have the time—"we are not sure how warfare will change";[29] until we do, we need to "search for insights as to appropriate longer term changes in doctrine, concepts of operation, and organizational change."[30]

Wohlstetter asserts that any institution's role in this process is to protect people with "wayward" thoughts from being penalized. They can be so protected only if the institution establishes, supports, and properly staffs settings in which innovative thought may take place. Even then, these groupings can be successful only if they are small and informal; are beholden to no overarching program, hierarchy, or doctrine; work purposefully, not expecting random thoughts to produce anything of value;[31] and give their creative people access to outside thinking. As long as insiders talk only to insiders, they will tend to ask traditional questions and come up with traditional answers.

The present post–Cold War "interregnum" marks a moment in history during which the nation should take advantage of newly available "time and resources for experimentation." Because no peer competitor looms, "this is the period of least risk if wrong choices are made."[32] We should not delude ourselves into thinking that no wrong choices will be made—some will. But fewer mistakes will occur if more possibilities are considered and proper deliberation precedes decisions. Of all the country's alternatives, funding *ideas* is the most affordable and fruitful option.

We should also keep in mind that ideas are not generated by organizational arrangements. Ideas come from people. If innovation is to flourish, the naval service must invest in the right people and then promote—or at least protect—those willing to advocate unorthodox but promising ideas.[33] As Kurth contends, it would not be wise to establish a separate "career track" in which officers could spend their entire service in the pursuit of innovative endeavors. Doing so would create a powerful internal elite, which would redistribute internal political influence but ultimately do little to foster innovation.

Since people can neither be ordered to be creative nor organized in such a way that they will assuredly be creative, innovation will emerge only in fits and starts, as innovators reveal themselves and successfully advocate their positions. Because this is a long-term proposition, a stable base of civilian analysts must remain in place—though even that "stable base" needs a certain amount of change if it is not to become stagnant. Innovation follows a pattern: "The

visionary comes along and it takes him about a generation to convince everybody that his vision is plausible. You recognize that [stage] when you start calling it reform instead of revolution. Then the second generation comes along, understands the vision, carries it out, and perpetuates it for about a generation. Finally, the third generation comes along and [sees the innovation as the normal way of doing things]. . . . Then you are ripe for the next visionaries."[34] Wohlstetter labelled those three stages in a slightly different way: "That's an outrageous idea," "That's an interesting idea," and "That's what I always thought."[35]

Here, then, as Shakespeare put it, is the rub—organizing to promote innovation is easier said than done. Vice Admiral J. D. Williams, USN, Retired, takes the extreme view and insists that "you can't design an organization for advocacy and innovation because bureaucracy will stomp it out every time."[36] Others hold the more optimistic position that while good people can overcome bad arrangements, certain organizational arrangements can be instituted to foster and reward creative, productive activity. Certainly, one feature of the ideal situation for the innovator is to be allowed to work unencumbered by bureaucracy. An institution should let the innovator "assemble his own team and attack the problem. Give him responsibility and discretion. Free him insofar as possible of bureaucratic layers of oversight authority. So long as he produces, let him alone to do so."[37]

For innovators, their work is often its own reward; the best an institution can do is make it easier for them to do it. Kurth fears, however, that "attempting to systematize the work of such men may destroy the circumstances under which they dedicate themselves to innovative endeavors. . . . [and could create] a myth that innovation is institutionalized by an organizational design. It is doubtful that the innovative function can be bureaucratized."[38] The other extreme, doing nothing, is also to be avoided. The naval service can do much to reduce the obstacles faced by innovators and to cultivate their efforts. Specifically, if the service is genuinely committed to promoting innovation, it can do four kinds of things.

It can sustain centers of excellence where ideas are openly discussed and analyzed. New organizations are probably not needed, though as suggested earlier, some existing organizations could benefit from minor changes. For example, SSG members should have longer, overlapping tours; CNA, test centers, and laboratories should be allowed more freedom to pursue unsponsored research; and the Naval War College should be more selectively staffed.

It can make risk-taking much more acceptable. This means, among other things, allowing people to fail. Not all innovative ideas work, and when they do not, those proposing them should not be penalized for having tried them. Risk-taking also involves willingness to invest in technologies that have potentially high

payoffs but are uncertain. In an era of restricted budgets, this strategy takes enormous courage (which may be one reason that we seldom skip a technological generation in established programs). The time has come for the military to borrow a page from the automobile industry and start investing in some "concept cars" of its own. The single, inescapable fact is that innovation entails risk; if people are punished for trying something new that does not succeed, very little that is new will be tried.

It can accommodate true innovators without fearing an uncontrollable cadre of Rickovers. The Admiral's power base came from his personal relationships with members of Congress. Today, with the exponential growth of their staffs, congressmen are so insulated that it is nearly impossible to build the kind of support structure Rickover enjoyed. Rickover was *sui generis*; the drawbacks of his influence need not be generalized by the Navy.

It can open itself to ideas beyond the scope of typical military experience. As the Secretary of the Navy recalled (in remarks cited at the beginning of this article), the military has not always been open to new, outside ideas. While it has come a long way since 1917, like many large organizations the Navy is susceptible to the "not invented here" syndrome. When it has opened itself, it has often benefited (e.g., in nuclear submarines, conventional cruise missiles, satellite communications, etc.). Outside the formal defense establishment, research universities have been a fruitful source of innovation; Congress, however, threatens to decrease defense research funding for colleges. It has been argued that such cuts "would rob the military of its technology leadership while doing little to solve the defense budget problem."[39] Anita Jones, Director of Defense Research and Engineering, has predicted that "this reduction in defense research would have very dire results. . . . You will not see them immediately, but over the long term they would be severe."[40]

We have argued that, although the Navy can do much to help matters, there is no such thing as an organizational "greenhouse" in which creativity can be cultivated like an exotic plant expected to bloom on demand. It would seem that, after all, "institutionalizing innovation" is an oxymoron. Where does that leave us, especially as battles over the budget continue? The naval service would do well to remember one analyst's words relating "things" to the thinking that binds them to purposes: "He who dies with the most toys simply dies, he does not win. Technology will only be valuable to the extent it is integrated into an effective overall force structure."[41]

Innovation—whether in technology, doctrine, or organization—is an imperative for the naval service; every leader recognizes this. The challenge for leadership is to direct the institution continually to foster, recognize, incorporate, and reward change that enhances mission accomplishment. This cannot be done without cost, risk, and thought; nor can it be done purely procedurally, by fiat,

or by a one-time rearrangement. Rather, it requires commitment, courage, trust, and unceasing support. To the degree that leaders have the wisdom to treat these words as real responsibilities, the naval service will continue contributing to national security.

Notes

1. The Honorable John H. Dalton, Secretary of the Navy, "Remarks Prepared for the Current Strategy Forum," Naval War College, Newport, R.I., 14 June 1994, pp. 7–8.

2. "Revolutions in military affairs" have also properly been referred to as "military-technical revolutions." The former name deemphasizes the technical aspects of warfare and stresses doctrinal and organizational aspects.

3. Stephen Peter Rosen, "New Ways of War: Understanding Military Innovation," *International Security*, Summer 1988, p. 134.

4. *Ibid.*, emphasis added.

5. Telephone interview with Edwin Diamond, New York: 6 March 1995.

6. This notion is discussed in Vincent Davis, *The Politics of Innovation: Patterns in Navy Cases* (Colorado: Univ. of Denver, 1967), p. 5, note 3.

7. Niccolò Machiavelli, *The Prince*, trans. W.K. Marriott (London: J.M. Dent & Sons, 1968), p. 29.

8. See Edward A. Smith, Jr., "What '. . . From the Sea' Didn't Say," *Naval War College Review*, Winter 1995; and Bradd C. Hayes, "Keeping the Naval Service Relevant," U.S. Naval Institute *Proceedings*, October 1993.

9. Whereas ". . . From the Sea" implied that new command arrangements were required to meet tomorrow's challenges, "Forward . . . From the Sea" insists that "our basic presence 'building blocks' remain *Aircraft Carrier Battle Groups*—with versatile, multipurpose, naval tactical aviation wings—and *Amphibious Ready Groups*—with special operations–capable Marine Expeditionary Units." The Honorable John H. Dalton, Admiral J.M. Boorda, and General Carl E. Mundy, Jr., "Forward . . . From the Sea" (Washington: Department of the Navy, 1994), p. 4 (emphasis original).

10. Jeffrey I. Sands, *On His Watch: Admiral Zumwalt's Efforts to Institutionalize Strategic Change* (Alexandria, Va.: Center for Naval Analyses, 1993), p. 24.

11. One reason the SSG is able to attract extremely capable individuals is the remarkable number of flag officers who have been members. To date the list includes:

Navy (active duty): Admiral William A. Owens, (SSG I), Admiral Leighton W. Smith, Jr. (SSG V), Vice Admiral Timothy W. Wright (SSG VI), Vice Admiral John B. LaPlante (SSG V), Vice Admiral William A. Earner, Jr. (SSG VII), Vice Admiral Jay L. Johnson (SSG IX), Vice Admiral Arthur K. Cebrowski (SSG I), Vice Admiral Frank L. Bowman (SSG VI), Rear Admiral Byron E. Tobin, Jr. (SSG VI), Rear Admiral Irve C. Lemoyne (SSG V), Rear Admiral Thomas D. Ryan (SSG VII), Rear Admiral Thomas F. Hall (SSG VII), Rear Admiral Larry R. Marsh (SSG III), Rear Admiral Jon S. Coleman (SSG VIII), Rear Admiral Michael A. McDevitt (SSG II), Rear Admiral Dennis C. Blair (SSG VI), Rear Admiral Mack C. Gaston (SSG VIII), Rear Admiral William H. Wright IV (SSG X), Rear Admiral Raymond C. Smith, Jr. (SSG XI), Rear Admiral Albert H. Konetzni, Jr. (SSG IX), Rear Admiral Dennis V. McGinn (SSG X), Rear Admiral Patricia A. Tracey (SSG XII), Rear Admiral Stanley W. Bryant (SSG XI), Rear Admiral Edmund P. Giambastiani (SSG X), Rear Admiral Richard K. Kirkland (SSG IX), Rear Admiral Barbara E. McGann (SSG XIII), Rear Admiral William L. Putnam (SSG VII), and Rear Admiral Thomas R. Richards (SSG XIII).

Marine Corps (active duty): Lieutenant General Anthony C. Zinni (SSG VI) and Major General Bertie D. Lynch (SSG V).

Fiscal Year 1996 Navy Selectees: Captain Robert T. Ziemer (SSG XIV), Captain Steve Loeffler (SSG XII), and Captain Steve Johnson (SSG VIII).

Retired: Vice Admiral Jerry L. Unruh (SSG VI), Rear Admiral Edwin K. Anderson (SSG II), Rear Admiral Clarence E. Armstrong, Jr. (SSG II), Rear Admiral Don R. Baird (SSG VIII), Rear Admiral Alvaro R. Gomez (SSG VI), Rear Admiral Jesse J. Hernandez (SSG IV), and Rear Admiral Daniel J. Wolkensdorfer (SSG I).

12. See Bradd C. Hayes and Douglas V. Smith, eds., *The Politics of Naval Innovation*, Research Report 4-94 (Newport, R.I.: Naval War College Strategic Research Department, 1994), p. 29. The briefing was given by Captain (later Rear Admiral) Walter Roche, who remained the program manager until his retirement.

13. Telephone interview with Dr. Tom Evans, Johns Hopkins Applied Physics Laboratory, Laurel, Md.: 1 February 1995. Dr. Evans has served on the Executive Panel since its inception.

For a brief summary of Space and Electronic Warfare, see Dan Struble, "What Is Command and Control Warfare?", *Naval War College Review*, Summer 1995, esp. pp. 95–7.

14. For an excellent discussion of the Polaris program, see Ronald J. Kurth, *The Politics of Technological Innovation in the United States Navy*, unpublished doctoral dissertation (Cambridge: Harvard Univ., 1970).

15. See Hayes and Smith.

16. *Ibid.*, pp. 83–4.

17. Evans interview.

18. The author served in 1988 and 1989 as a Federal Executive Fellow at RAND.

19. Kurth, p. 84.

20. *Ibid.*, pp. 4, 45, 71 (emphasis added).

21. Rosen, p. 141.

22. Andrew Marshall, memorandum for the record, "Some Thoughts on Military Revolutions—Second Version," 23 August 1993, p. 6.

23. Paul Bracken, "The Military after Next," *The Washington Quarterly*, Autumn 1993, p. 171.

24. *Ibid.*, p. 159.

25. Interview with Dr. Robert S. Wood, Dean of Naval Warfare Studies, Newport, R.I.: 8 August 1994.

26. Matthew 12:26.

27. Wayne P. Hughes, Jr. (Capt., USN, Ret.), "The Power in Doctrine," *Naval War College Review*, Summer 1995, p. 27. For the contrasting view of a senior analyst at the Naval Doctrine Command, see James J. Tritten, "Naval Perspectives on Military Doctrine," *Naval War College Review*, Spring 1995, esp. pp. 22–3.

28. Marshall, p. 2.

29. *Ibid.*, p. 3.

30. *Ibid.*, p. 5.

31. This does not contradict the earlier point that more "non-directed" thinking be allowed. Non-directed thinking means allowing analysts to pursue research topics they believe are important but for which they have no sponsor. This is quite a different notion than random thinking.

32. I am indebted to James R. FitzSimonds and Jan M. van Tol for this insight. See their "Revolutions in Military Affairs," *Joint Force Quarterly*, Spring 1994, p. 27.

33. A recent RAND study directed by Dr. Henry J. Thie entitled "Future Career Management Systems for U.S. Military Officers" recommends maintaining the "up or out" system only for junior officers, allowing much longer careers. Such a system would, among other things, benefit recognized innovators in program offices, laboratories, gaming centers, etc.

34. Interview with Mr. Marion Oliver, Special Assistant for Science and Technology on the Navy Staff (N8T), conduced by Cdr. Greg Engel, USN, Washington, D.C.: 9 September 1993.

35. Interview with Dr. Albert Wohlstetter, Los Angeles, Calif.: 18 September 1993.

36. Quoted in Hayes and Smith, p. 94.

37. Kurth, p. 388.

38. *Ibid.*

39. Ralph Vartabedian, "Colleges Fear Research Cuts by Pentagon," *Los Angeles Times*, Washington edition, 22 July 1994, p. 1.

40. *Ibid.*

41. Anthony Cordesman, "Compensating for Smaller Forces: Adjusting Ways and Means Through Technology," *Strategy and Technology* (Carlisle Barracks, Penna.: Strategic Studies Institute, 1992), p. 8.

Ψ

[The] reasonable right of the amateur to do what he can with the facts which the specialists provide.

G. K. Chesterton
The Everlasting Man
Ignatius Press, San Francisco, 1993

India and Russia
The End of a Special Relationship?

Vidya Nadkarni

THE TECTONIC SHIFTS IN THE GEOPOLITICAL WORLD caused by the implosion of the USSR have left in their wake a deeply fractured global landscape. The Soviet breakup has also upset the balance between carefully crafted networks of interstate relations based on norms and priorities of the Cold War. The crumbling of one of the two main pillars supporting the post–World War II bipolar international structure signals vast and continuing systemic changes as each country attempts to redefine its world view, reassess its opportunities and threats, and recast the status and basis of its relations with other states. Nowhere is this process of redefinition and readjustment more evident than in the Indian-Russian nexus. For decades the object of lavish Soviet attention, India now finds that it cannot count on automatic Russian support in international fora for its domestic and foreign policies. Russia, for its part, consumed by domestic obstacles to economic and political reform, is caught in the vise, familiar to many Third World countries, of seeking economic assistance through bilateral and multilateral channels while attempting to preserve a measure of independence in the pursuit of its policies at home and abroad. Russia's India policy epitomizes the vagaries of this dilemma confronting its political leadership. As a result, the Indian-Russian relationship is more vulnerable to external pressures than was the erstwhile Soviet-Indian connection.

Close Soviet-Indian ties had developed gradually, in response to shared socialist sympathies (however diluted on the Indian side) and a shared

Vidya Nadkarni is associate professor of political science at the University of San Diego. She earned her Ph.D. in political science at the University of British Columbia in Vancouver. Dr. Nadkarni has presented a number of scholarly papers on various aspects of Indian-Russian foreign policy at meetings of the International Studies Association, and has published in *Comparative Strategy*.

anti-Westernism (which in India was a direct offshoot of anticolonial tradition). Above all, however, were geopolitical realities in which India, by its vigorous pursuit of a nonaligned foreign policy, and the USSR, through its aggressive efforts to supplant Western (usually American) influence in various regions of the world, were faced with a triangular association of strategic convenience— Pakistan, China, and the United States. Today the emerging, but as yet shaky, links between Russia and America raise many questions with regard to the nature of the U.S. and Russian roles and, specifically, of changing Russian and American interests in the Indian subcontinent. The South Asian region has generally been accorded a low priority in the U.S. calculation of geopolitical interests; with Soviet disengagement from the region, will the United States follow suit? Or will Russia and America necessarily adopt a common posture vis-à-vis India? Will a weakening of Indo-Russian ties loosen, in turn, Pakistani-American relations? Sino-Pakistani relations? Sino-American relations?

With the disappearance of the sure compass of the East-West axis, political alignments of the past have come unhinged. In South Asia, the United States and China have emerged as primary beneficiaries of this process of post–Cold War realignment. The United States, as the sole superpower, is in a position to exercise leverage in the Indo-Russian relationship, especially because current domestic economic priorities and policies in both India and Russia require for their success a favorable relationship with the United States. Correspondingly for China, the Soviet eclipse has improved prospects for projecting power in the South Asian region and the Indian Ocean, which is bound to complicate the attainment of a nuclear-free South Asia. This article will explore the range and implications of possible directions in which the Russian-Indian relationship may be headed. With this in view, we shall first trace the evolution of the Soviet-Indian friendship; second, study the emerging Indo-Russian nexus in the context of external pressures; then, outline alternative scenarios for Indo-Russian relations; and finally, situate India's security concerns in a wider regional and global context, with respect to both Russia and the United States.

The Evolution of a Special Friendship

The Indo-Soviet connection began in the mid-1950s, developed fitfully through the late 1960s, peaked early during the decade of the 1970s, and subsided in the 1980s, becoming a pragmatic mutual acknowledgement of complementary as well as divergent interests. During these decades, despite occasional friction, the groundwork was laid for a close economic and defense relationship between the world's largest democracy and the world's original communist state. Thus, for the first time, a long-term strategic partnership of sorts was established between these two countries, each in many ways the antithesis of the other:

India, a political democracy since its independence in 1947, a country with a strong metaphysical tradition and a fiercely individualist and decentralized religion; and the Soviet Union, a communist state, officially atheistic and anti-traditionalist in outlook.

Accounts of early interaction between the peoples of the Indian subcontinent and those of Central Asia and points north start several millennia before the beginning of the Christian era, with the migration of the Aryans through Central Asia into the Indo-Gangetic plain. There are no records, however, of sustained contact between peoples of peninsular India and those of the great Eurasian landmass. It is true that by the seventeenth century Indian traders had established themselves in Central Asian towns like Astrakhan, trading intermittently with Moscow and other Russian cities, and that their commercial links increased during the eighteenth century; but the maturation of such ties was arrested by parallel and ultimately related political developments on the Indian subcontinent and in Central Asia. That is, the eighteenth century witnessed the steady consolidation of the British hold on India even as Russian rulers stretched their imperial reach southward in Central Asia; the two empires clashed in the nineteenth century as each tried to restrain the Asian ambitions of the other.[1] This major hegemonic struggle lasted until the end of the First World War.

The Bolshevik coup d'état in Russia in November 1917 created a reservoir of anti-imperialist sentiment to the north of the British Indian empire but no material support for an Indian anti-colonial revolution, whether bourgeois or proletarian. For Vladimir Ilyich Lenin, the consolidation of power in Russia took priority over any ideologically dictated policies elsewhere in Asia. When India gained independence from British rule in 1947, Joseph Stalin, Lenin's successor, refrained from cultivating ties with India's leadership because of its "pro-Western" proclivities. It was not until Nikita Khrushchev's doctrinal reassessments of the mid-1950s, which sought to tap the anti-Western potential of Third World nationalist movements, that the USSR began to explore the implications of a friendly posture toward India.

Meanwhile India, guided by the Fabian socialist ideals of India's first prime minister, Jawaharlal Nehru, had since independence unsuccessfully sought Western assistance in the development of a public sector infrastructure, even as it resolutely refused to join Western-sponsored military alliances aimed against the USSR.[2] In the ideologically charged atmosphere of the Cold War, India's nonaligned foreign policy stance was especially irksome to the West and initially also to Stalin's Soviet Union. In the mid-1950s, however, several developments paved the way for a Soviet-Indian partnership. On the Soviet side, as noted, there was a positive reassessment of the ideological value to the USSR of Third World nationalism in the global crusade to undermine Western influence. The development of cordial relations with India formed a key element of

Khrushchev's Asian strategy.[3] The India factor assumed even greater importance in Soviet eyes when, in the latter half of the 1960s, Sino-Soviet differences became clearly irreconcilable.

For India, the Soviet ideological reappraisal brought immediate benefits in the economic area. India had been seeking external assistance in the construction of a state-owned steel mill in Bhilai; the U.S. response had been negative, and Britain and the Federal Republic of Germany had offered help subject to rather stringent conditions. Into this breach stepped the Soviet Union with an offer to aid the Bhilai project on terms acceptable to the Indian leadership. Bhilai represented the beginning of a long and fruitful, though not frictionless, Indo-Soviet partnership in economic, defense, and sociocultural spheres. On the Indian side, as with the USSR, strategic considerations enhanced, even undergirded, the strength of the connection: Pakistan, India's chief rival in South Asia, entered in 1954 into a military assistance agreement with the United States and was soon pulled into a system of U.S.-sponsored anti-Soviet alliances ringing the southern perimeter of the USSR.[4] As Pakistan emerged as an important factor in Washington's global strategy, India's Soviet ties became stronger. The political-strategic aspects of the Indo-Soviet relationship in the mid-1950s manifested themselves in Khrushchev's clear and unequivocal support for India on issues where Indian and Western positions differed. Thus, on Goa and Kashmir, in the United Nations, and in the global public relations arena, the USSR vehemently upheld New Delhi's interpretation of events and vetoed any Western-sponsored resolutions in the Security Council that were inimical to Indian interests.

In the mid-1960s the Soviet focus on India lessened somewhat, as India's disastrous performance in the 1962 Sino-Indian war led the USSR to pursue a more broad-based South Asian strategy in its quest to stem the growth of Chinese influence. Moscow also attempted during this period to cultivate a more evenhanded image in the region by developing ties with Pakistan. Khrushchev's ouster in May 1964 facilitated the policy shift, as did the new leadership's quiet resolve to enhance the USSR's global position and influence. Moscow's neutrality in the 1965 Indo-Pakistani conflict and its subsequent efforts to mediate the conflict testify to the altered Soviet approach in South Asia. The Indian response to this shift was initially cautious. However, in the wake of a July 1968 Soviet decision to supply arms to Pakistan, cordiality between India and the Soviet Union reached it lowest level. The basis for the relationship, however, while shaken, was not completely jeopardized, and India soon regained its importance in Soviet eyes.

The proximate cause of Moscow's reconsideration of India's value was the border clash between Chinese and Soviet forces along the Ussuri River in March 1969, coinciding as it did with the consolidation of the Sino-Pakistani relationship and the prospect of a Sino-American understanding. This combination

of events resuscitated and then strengthened the Indo-Soviet friendship, which in 1971 was formalized by a bilateral treaty. The treaty's security provisions prohibited any form of assistance to a third party with which either country might become involved in armed conflict and required the signatories to render to each other such help as would be necessary to end hostilities and restore peace. In the context of a looming war with Pakistan, the Indo-Soviet Treaty of Peace, Friendship, and Cooperation provided India with the material and moral support necessary in the event of a confrontation. The subsequent Indo-Pakistan War resulted in the defeat of Pakistan and the creation of a new state, Bangladesh, from the former isolated East Pakistan.

The year 1971 represented the peak of the Indo-Soviet partnership. India's vindication as a competent military power (the defeat of Pakistan blotted out much of the stain from the 1962 Sino-Indian debacle) and the nation's growing economic and political importance in the region reduced Indian's dependence on Soviet support. From 1971 until the accession of Mikhail Gorbachev, it seems fair to say, the bilateral relationship was characterized by greater interest on the Soviet than on the Indian side.[5] Both countries maintained civility in the relationship despite often divergent interests. For instance, though India's nuclear explosion of May 1974 in the Rajasthan Desert disconcerted the Soviet Union, which was wedded to the principles and priorities of the Nuclear Nonproliferation Treaty, the USSR refrained from publicly censuring India. Likewise, the Soviet invasion of Afghanistan in 1979 deeply disturbed India, both because of its implications for security in the South Asian region, in which India hoped to maintain preeminence, and because of the resulting American rearming of Pakistan. Nonetheless, while India privately exerted pressure on the USSR to withdraw, publicly it chose neither to endorse nor to criticize Moscow's action.

The mid-1980s saw liberalizing trends in both India and the Soviet Union. In 1984 India's newly elected prime minister, Rajiv Gandhi, began to take small steps toward freeing the Indian economy from the stifling hold of governmental bureaucracy, and to campaign for the scientific and technological modernization of the country. Both of these moves required a more Western-oriented approach than had been taken previously. In the Soviet Union, appointment in 1985 of Mikhail Gorbachev as General Secretary heralded even greater changes, in the form of political and economic restructuring ("perestroika"). In the foreign policy area, Gorbachev, moving simultaneously on many diplomatic fronts, sought to improve relationships with the United States and China by removing major irritants: the USSR eased its hard-line arms control posture, decided in 1988 to withdraw from Afghanistan, and softened its support of Vietnam in order to enhance Moscow's chances of mending fences with China (with ancillary benefits in relations with the United States). These significant developments

could not fail to have an impact on the USSR's South Asia policy. Appreciating the importance of conflict resolution, Gorbachev cultivated relations with Pakistan while continuing to declare Moscow's commitment to its friendship with India. As the Soviet Union was teetering to its collapse in 1991, the political-strategic foundations of the Indo-Soviet relationship established in the 1950s were already crumbling under the impact of forces unleashed by Gorbachev's reforms.

These changes in the strategic dimension of the Indo-Soviet equation most notably appeared in the economic and defense aspects of the relationship. Both, of course, were interlinked, as military sales underwritten by Soviet credits have often been paid for by Indian exports to the USSR. After almost total Indian dependence on British-made arms in the 1950s, the Soviet share of total Indian military imports stood at over 60 percent by the 1980s.[6] This shift was a result largely of the refusal of Western powers (Britain, France, and the United States) to accede to Indian requests for the purchase of certain types of weapon systems; Moscow, by contrast, was willing for political and strategic reasons to offer military hardware and even license the manufacture in India of aircraft such as the MiG-21 and MiG-27L, vessels including Tarantul missile patrol boats, and other systems. Credits for arms purchases were offered at low rates of interest and were repayable through trade surpluses accumulated on the Indian side, using a periodically revised rupee-ruble exchange. New Delhi was thus able, without expending hard currency reserves, to acquire fairly advanced weapons. While Soviet aircraft, missiles, ships, and ground force equipment were not always as technologically sophisticated as their Western counterparts, they were economical, modern, dependable—and available. India could not improve upon this combination of advantages.

Soviet arms sales to India had begun in 1961 and, except for a brief hiatus during the Sino-Indian war, continued unabated into the 1980s, even through the Indo-Pakistan war of 1965. Interestingly, India's efforts in the mid-1970s and early 1980s to diversify its sources of arms led to concessionary Soviet offers for the sale of the most advanced aircraft, conventional submarines, and tanks. For instance, in 1984 India was offered the MiG-29 fighter aircraft (the Soviet equivalent of the U.S. F-16) ahead of the Soviet Union's Warsaw Pact allies; MiG-31s were scheduled for delivery to the Indian Air Force almost as soon as to the Soviet air forces; Moscow agreed to purchase MiG-21 components manufactured under license by India's Hindustan Aeronautics, Ltd., for delivery to Warsaw Pact countries and other countries flying MiG-21s; advanced T-72 and T-80 tanks were promised; and above all, manufacturing license agreements for weapons were modified to allow India to install non-Soviet systems on Soviet platforms.[7]

So long as Cold War political realities persisted and Moscow's global ambitions remained unaltered, the Soviet leadership tolerated the economic costs of its defense relationship with India. Gorbachev's new and de-ideologized approach to interstate relations, however, and his conviction that a more efficient and innovative domestic economy required global integration, soon affected that view, especially with respect to the rupee-ruble arrangement. For New Delhi, too, many of the underlying assumptions for this economic relation eroded as India's progressive industrialization undercut the advantages of its ties with the USSR in this area, and as Soviet global retrenchment reduced Moscow's political value in the eyes of the Indian leadership. In 1990 the USSR began demanding payment in hard currency for Soviet weapons components, and a note of uncertainty crept in.[8] Both countries moved more openly to cold calculation of interest and gains.

Over the course of 1990–1991, the Soviet Union withdrew from India its prior unequivocal support on the Kashmir issue. For Gorbachev, who now recognized the right to self-determination of the Baltic republics and subsequently for other largely non-Russian Soviet republics, the earlier position was clearly inconsistent. Along with the United States, in the summer of 1990 the Soviet Union endorsed Pakistan's call for a nuclear-free zone in South Asia and for multilateral efforts to deal with the nuclear issue.[9] Dislocation in the Soviet economy now also affected areas of functional cooperation; economic deals, both military and otherwise, were jeopardized when supply lines in the USSR were disrupted by the effects of economic reforms and political uncertainty. The Indo-Soviet special relationship was already unraveling when in late 1991 the dissolution of the USSR changed the very terms of the equation.

A New and Pragmatic Phase

Under the prevailing political and economic circumstances, the possibility of a smooth transition from Indo-Soviet to Indo-Russian ties was slim. The Indian government's acceptance without protest of the anti-reformist August 1991 coup added psychological hurdles. In December, Russian Vice-President Aleksandr Rutskoi visited Pakistan to secure help in obtaining the release of Soviet prisoners of war captured by the mujahedin during the decade-long engagement in Afghanistan.[10] The visit underscored the Russian government's stated commitment to replace ideology with geopolitical interest as the guiding light of foreign policy. However, the level and extent of erstwhile Indo-Soviet commitments meant that, for the near term at least, recasting its Indian relations would occupy the bulk of Russian attention in South Asia.

The unhinging of ties came about largely because of two circumstances, neither of which, in fact, directly involved Pakistan. The first of these was the

pro-Western stance adopted by the Russian leadership, marginalizing India as a counterweight to American and Chinese influence and requiring Russian policy makers to give greater weight to U.S. concerns and priorities in the area. The second circumstance was related to the severe economic dislocation wrought in the Eurasian region by the breakup of a previously integrated economic unit. Trade and military arrangements negotiated between the Soviet and Indian governments fell victim to changing economic and political realities; many institutions participating in Indo-Soviet agreements, for instance, now found themselves in independent successor states beyond the reach of Moscow's control or even influence. The combined effect was a rapid deterioration of Indo-Russian relations, in 1992.

In January 1993 President Boris Yeltsin made a long-awaited and twice-postponed visit to New Delhi to mend fences. The visit provided an opportunity for both countries to articulate and usher in a new and pragmatic phase in the relationship. The status of Indo-Russian cooperation today is reflected in the results of the Yeltsin trip and that of Indian Prime Minister P. V. Narasimha Rao's visit to Moscow a year and a half later. Yeltsin's visit culminated in the signing of a twenty-year Treaty of Friendship and Cooperation (without a continuation of the security clause of the 1971 Indo-Soviet treaty). The banality of this document reflected the end of the old "special relationship," but the present understanding is far from bereft of political-strategic meaning. Russia and India remain important to one another.

While in India, Yeltsin pledged to support his hosts' position that the Kashmir issue is one between India and Pakistan and can be resolved only in a bilateral context. Although the strength of the promise has yet to be tested, one must note that Yeltsin's Russia has a greater impetus than did Gorbachev's USSR to support the principle of territorial integrity, in view of demands for autonomy within Russia itself. Chechnya is a case in point. In this vein, Rao's visit to Moscow in June 1994 yielded the Moscow Declaration, which outlined principles for safeguarding the integrity of pluralistic states against threats from religious extremism, terrorism, and separatism.

In the larger South Asian context as well, Moscow's renewed relationship with India, noted Victor Samoylov (director general of Rosvooruzhenie, Russia's state corporation for armaments trading), is part of a "strategic policy in the Indian Ocean and the Pacific. We consider India to be the main guarantee of stability in the region. And we shall do our best to ensure India's position in this region. We realized it would be silly to lose such a partner."[11]

Such an assessment is unlikely to go unnoticed in India. But the leadership, the opposition parties, and the attentive public all are very much aware of the limitations in Russian support. From the Indian perspective, the external constraints on the Indo-Russian relationship, as evidenced in

Moscow's alteration in July 1993 (under American pressure) of a cryogenic rocket engine deal with India, are considerable. The Clinton-Yeltsin joint statement from Moscow in January 1994 calling upon India and Pakistan to sign the nuclear nonproliferation treaty and to join a multilateral forum to make South Asia nuclear-free was also seen by many in India as a "sinister anti–India move" on the part of the United States.[12] In this context, it is small consolation for New Delhi that Russia is not itself pushing India hard on the nonproliferation issue.

The defense link continues to be of critical importance to both countries: for Russia, because arms sales bring in hard currency and, in a competitive market, India is a prize Russia would like to keep; for India, because it is dependent upon Moscow for a large percentage of its defense equipment and spares. During Rao's June 1994 visit to Moscow, two declarations and nine agreements covering mutual strategic interest, defense, trade, and technology were announced.[13] Of these the most important was the signing of a joint venture between Hindustan Aeronautics and Russian agencies for spares and servicing of aircraft of Soviet origin. The Russian side also offered for sale a range of new aircraft including the Su-30 (two-seat Su-27) and more MiG-29s, combat helicopters, the T-80 main battle tank, plus antiaircraft, antitank and antiship as well as other missiles and systems.[14] Beyond the possible purchase of thirty more MiG-29s, the Indian government, for its part, has made a concerted attempt to downplay the defense component of the Indo-Russian relationship in view of concerns in Islamabad and Washington.

In the area of trade, India is in the process of a slow and difficult rebuilding of ties with Russia following the scrapping of the rupee-ruble arrangement, with competition from China, other Southeast Asian countries, and the West. Economic trade issues, however, run a distant second at present to defense criteria—but in the long run, even the latter may slowly erode. India's defense establishment would like the government to keep its options open, specifically to examine closely a proposal from the Indian Air Force to obtain two squadrons of the French Mirage 2000 as an answer to efforts by Pakistan to obtain next-generation fighter aircraft.[15] Diversification of sources for military supplies and equipment has been made more attractive by Russian insistence on hard currency sales, so India has been actively shopping for defense equipment in Israel, South Africa, and other Western countries.

In the short run, the importance to India of the Russian relationship cannot be underestimated. Rightly or wrongly, Indian political leaders perceive—in the unrelenting American pressure on India in the areas of nuclear nonproliferation, Kashmir, human rights, and trade—a deliberate attempt to diminish India's status in the region and ignore its legitimate security concerns. The response, Indians

argue, must be to build "flexible coalitions" and to search for "tactical allies" on each separate issue.[16] Russia, with all its shortcomings, seems one such useful partner.

In the long run, India's economic and technological priorities necessitate a stronger relationship with the West, especially the United States. The implications of various facts are not missed by the Indian leadership or public: the U.S. is India's largest trading partner; American companies are the biggest private foreign investors in India; and Washington has a dominant influence in the international financial institutions from which India receives assistance. Thus, were American efforts toward peace and stability in the South Asian region perceived to be taking account of the security context within which India operates—and which most certainly includes Indian apprehension about Chinese ambitions—one might see a more attenuated Indo-Russian relationship.

If Not "Special," What?

Under most foreseeable post–Cold War conditions, a special Indo-Russian relationship would not be a meaningful alternative to the current arrangement. Russia does not have the international influence of the Soviet Union; the political rationale that underlay the Indo-Soviet friendship, therefore, no longer exists. For President Yeltsin, India is not—as it was for his Soviet predecessors— Moscow's sole strategic ally in Asia; the USSR, as he observes, "regarded India as a partner in the capacity of a counterweight against the United States and Beijing," whereas Russia is interested in "healthy and mutually advantageous relations with India, not directed against any third country at all."[17] Ties with India are important for Russia, however, perhaps even more than those with Pakistan, if only because the long Soviet-era partnership bequeathed enduring functional linkages in the economic and military spheres. But India no longer figures prominently in Russian global strategy and therefore no longer plays a "special" role.

However, were Russia's pro-Western strategy to falter, perhaps through disillusionment with the West (particularly the United States), failure of domestic reform, or the predominance of a conservative chief executive, the search for a kindred spirit in a "neocolonial" North–South contest might well lead Russia to look toward India (and perhaps China). But from the Indian perspective, to reciprocate in such a case would be enormously self-defeating both politically and economically, because Russia has much less to offer than do countries in the West and in Southeast Asia, and also because economic regeneration would go farther to ease ethnic and religious tensions than would military modernization.

One scenario that might effectively pull Russia and India closer is a shared perception of an Islamic threat. Currently, India's concerns in this regard, whether justified or not, are greater than Russia's. Pakistan's assiduous efforts, arising from geographical proximity and religious affinity, to cultivate the newly independent Central Asian countries have alarmed Indian leaders, who have in turn attempted to woo these countries themselves. Still, conservatives in Russia worry about "the threat from the South"; in parliament and government bureaucracies, this apprehension extends to Turkish and Iranian attempts to gain greater influence in that region. Were common concern to drive India and Russia into an anti-Islamic partnership, however, the results would be disastrous, for two reasons. First, such a link would, in the nature of a self-fulfilling prophecy, strengthen if not generate the very threat against which it was aimed. Second, the Muslim populations of both countries would feel alienated and each group would become a source of internal political instability and separatism.

Might the Russian-Indian relationship deteriorate? Given the extensive economic and military links already existing, a swift deterioration does not appear likely. Further, the prospect of a complete rupture or the rise of enmity seems remote. Historically, neither country, in any of its incarnations, has pursued lasting rivalry against the other in any sphere. (The competition between the British and Russian empires did spill over into the Indian subcontinent, but only peripherally; the British took great pains to maintain a physical separation between the two empires in South Asia.) Also, with the collapse of the Soviet Union, Russia's borders have moved even farther north, increasing the physical distance between India and Russia and thereby easing earlier Indian concerns about conflicting Indian regional and Soviet global ambitions.

How *should* the future relationship of India and Russia be depicted? The connection, now bereft of ideological significance, is shaped largely by specific issues, by the interplay with other major powers, and by domestic concerns, so at least in the near term it is likely to continue in an understandable but fluid pattern. Thus, in areas of converging interest—such as the economic and military spheres, where there is a common need for cooperation—efforts to arrive at mutually advantageous arrangements are almost certain to succeed. In cases of divergence, clear expressions of disagreement are likely, but with little recrimination. Since Russia and India appear to have no conflicting "vital interests," neither acrimony nor bellicosity is imaginable without another epochal change in world politics. The relationship, then, will remain pragmatic, having neither the seeds of an alliance nor the germs of total rupture.

India's Regional and Global Security Concerns

From the Indian perspective, Chinese and Pakistani ambitions and policies represent significant security threats. China's nuclear weapons program, nuclear testing, sales of missile systems and components to Pakistan, and increasing power projection capabilities in the Indian Ocean have raised considerable alarm in New Delhi.[18] Memories of the Indian debacle in the 1962 Sino-Indian War, in which China occupied the Aksai-Chin (northeastern) region of Kashmir, are deeply imprinted in the Indian psyche.

India's long-standing conflictual relationship with Pakistan predates the independence of the two countries in August 1947. It has its origin in the differences between philosophical bases for nationhood: the bedrock of Pakistani nationalism is Muslim identity, while India forged a domestic consensus based on secularism, democracy, and liberal-socialist policy. The dispute over Kashmir encapsulates the hostility. Pakistan argues that the rights of the Muslim majority in the state of Jammu-Kashmir can be safeguarded only within Pakistan, whereas India, upholding the original instrument of accession that brought Jammu-Kashmir into the Indian Union, disputes Pakistani and Chinese control of, respectively, the northwestern and northeastern portions of Kashmir. As a secular democracy, India objects to casting the Kashmir issue solely in religious terms.[19] The growth in the state of Kashmir since 1987 of Muslim insurgency, to a great extent encouraged and supported by Pakistan, has added new urgency to India's perceptions of its security risks; it has also drawn India into the center of an ugly human rights controversy arising from the often repressive treatment of insurgents by Indian forces. Pakistan's nuclear weapons capability further complicates the Kashmir scenario.

In light of these developments, a national consensus has emerged within India on key issues: that the status of Kashmir is non-negotiable; that India will not give up its nuclear option; and that outside pressure on India to resolve the Kashmir dispute and sign the nonproliferation treaty (NPT) is unacceptable. However, these positions may not be quite as inflexible as they seem. On Kashmir, the Indian government recognized that in preventing human rights groups such as Amnesty International from having access to Kashmir it has unwittingly fostered reports based on second-hand information which may have been exaggerated, and it has taken steps to correct the situation. The establishment in September 1993 of a Human Rights Commission composed of jurists reinforced India's commitment to put an end to violations of human rights on its territory. While Indian observers often criticize what they see as American "meddling" in Kashmir, they recognize

that "India must restore normalcy in the Kashmir Valley" through an "acceptable political instrumentality."[20]

India's nuclear position has also come under careful scrutiny. Most Indian analysts chide the government for its ambivalence and argue in favor of a new approach that is either clearly "NPT-friendly" or "opposed to NPT." As a respected Indian academic argues, "An NPT-friendly diplomacy may not require India to sign the treaty. But it will require India to negotiate with Pakistan and China a series of separate agreements."[21] Such a stance would bring India many benefits by easing restrictions on the transfer of high technology. Nevertheless, public opinion in India is staunchly anti-NPT; an editorial in a leading newspaper points out, "If a government in New Delhi were to succumb to pressure and sign the NPT against national consensus, its continuance would be in jeopardy under an onslaught of ultranationalist forces."[22] Thus any NPT-friendly change would have to be carefully crafted and avoid any appearance of capitulation to outside pressure. Here, Russia's status as a nuclear power probably militates against any open effort to sway Indian policy.

Moscow's political disengagement from the South Asian region has occurred at an unpropitious moment in India's domestic fortunes. Though it is an aspiring regional power, India is beset with internal political and economic difficulties that retard, for the time being, the attainment of the preeminence suggested by the nation's population, geography, history, and promise. Externally, when Russia abandoned the Soviet Union's global ambitions, India lost its earlier leverage as a "balancer" in the U.S.-China-USSR triangle. The disappearance of the Soviet threat in Afghanistan likewise reduced Pakistan's importance to the United States. During the last years of the Bush administration, American concern over Pakistan's attempts to build a nuclear bomb led to the termination of U.S. military supplies to that country, which had been for a long time the favored channel for American arms sent to stem the Soviet tide in South Asia. The loosening of Pakistani-American ties paved the way for a brief improvement in the Indo-American relationship; but having resisted Soviet attempts to establish hegemony, the United States is not interested in promoting India's goal of regional leadership.

While South Asia does not occupy a very important place in the hierarchy of its interests, the U.S. desires a peaceful, stable, and nuclear-free South Asia. American attention to the region presently derives from the assessment that the South Asian region is at a potentially high risk for nuclear conflict. This evaluation is seen in India as exaggerated, and as being based upon American acceptance of Pakistani rhetoric at face value. In the Indian view, Pakistan has succeeded in its main aim, which is to bring the United States to pressure India

about Kashmir and about the NPT—areas in which Pakistan's leverage over India in a bilateral context is minimal.[23] The Kashmir disagreement has been explained above. The Indian leadership objects to American, and more generally Western, pressure on India to sign the NPT. More recently, India refused to send a delegation to the NPT Extension Conference and expressed strong objections to the May 1995 decision by NPT signatory states for an indefinite extension of the treaty.

With regard to China, the other major player in the region, Russia and India have moved to improve relations—Russia because of shared concern about the global power imbalance and, especially, interest in economic links; India because, with the loss of Russia as a strategic ally, it needs to mend fences with a nation that is its only competitor in the region—other than Pakistan—and that, unlike Pakistan, could not easily be challenged by New Delhi.

These global shifts have broken many long-standing patterns. Hence we see duplicated in the larger South Asia environment the same ad hoc quality that now marks the Indo-Russian relationship. Thus, on the issue of human rights we may see the United States pitted against China, India, and even Russia. On nuclear proliferation, Russia and the United States may take positions opposed to those of India. And with respect to domestic economic needs India, Pakistan, and Russia may each sometimes woo U.S. investment and assistance but at other times inhibit or repulse American involvement when it appears adversely to affect sovereignty or national self-conceptions. In other words, we are likely to see in post–Cold War South Asia the internationalization of single-issue politics, both in the relationship worked out by New Delhi and Moscow and in the complex of bilateral ties among all the countries whose interests intersect with those of India and Russia.

Notes

1. It was in fact largely in order to separate physically the Russian Empire from the British Empire that Britain had carved the territorial barrier of the Wakhan Corridor, separating Tajikistan from what later became Pakistan. The Wakhan corridor created a wedge of Afghan territory between the Russian and British empires. Afghanistan was seen by the British as a neutral country.

2. Fabian Socialists were committed to gradual rather than revolutionary means for spreading socialist ideas. The Fabian Society was founded in Britain in 1884; among its early proponents were Sidney and Beatrice Webb, George Bernard Shaw, and H.G. Wells. The name recalled the delaying tactics of the Roman general Quintus Fabius Maximus in the Second Punic War.

3. For a detailed assessment of the Soviet diplomatic offensive toward India during the latter half of the 1950s, see Harish Kapur, *The Soviet Union and the Emerging Nations* (London: Michael Joseph, Ltd., 1972), pp. 46–52.

4. Pakistan joined both the Central Treaty Organization (CENTO) and the South East Asia Treaty Organization (SEATO).

5. For a study arguing that India was the primary beneficiary in the Soviet-Indian influence relationship, see Robert H. Donaldson, *The Soviet-Indian Alignment: Quest for Influence*, Graduate School of International Studies, Monograph Series in World Affairs (Colorado: Univ. of Denver, 1979), vol. 16, pp. 3–4.

6. Ramesh Thakur and Carlyle A. Thayer, *Soviet Relations with India and Vietnam* (New York: St. Martin's Press, 1992), p. 94.

7. For further details on the many Soviet concessions ro India in the areas of military sales and technology transfer from 1982 to 1988, see *ibid.*, pp. 95–8.

8. *Ibid.*, p. 104.

9. On other military-related matters, an expired three-year lease of a Charlie I–class nuclear submarine was not renewed with the Indian Navy in 1991, either because of its destabilizing effects in a volatile area or because a switch to "unrealistically high" hard-currency payments caused the Indians to balk. See Hamish McDonald, "Looking for Friends," *Far Eastern Economic Review*, 19 September 1991, p. 25. For Soviet criticism of India's obdurately negative stance on the Nonproliferation Treaty, see N. Paklin, "Who Has a Nuclear Bomb Behind His Back?", *The Current Digest of the Soviet Press* (hereinafter *CDSP*), 18 December 1991, pp. 18–9.

10. V. Lashkul, "Will Mujahedeen Make Goodwill Gesture?" *CDSP*, 22 January 1992, p. 22.

11. Interview, Sudeep Chakravarti and Sunil Dasgupta, "Looking Ahead, Finally," *India Today*, 11 July 1994, p. 32.

12. Editorial, "Pressures Again," *The Hindustan Times* (New Delhi), 17 January 1994, p. 13, *Foreign Broadcast Information Service Daily Report: Near East and South Asia* (hereinafter *FBIS-NES*), 25 January 1994, p. 51.

13. For details, see Chakravarti and Dasgupta, pp. 30–5.

14. *Ibid.*, p. 32.

15. "No 'Shopping List' for Arms Submitted," *Indian Express* (New Delhi), 24 June 1994, p. 9, *FBIS-NES*, 28 June 1994, p. 75.

16. S. Nihal Singh in *The Hindustan Times* (New Delhi), 24 August 1993, p. 13, *FBIS-NES*, 17 September 1993, p. 45.

17. Report on President Yeltsin's news conference, Russian Television Network (Moscow), 25 January 1993, *Foreign Broadcast Information Service-Central Eurasia*, 26 January 1993, p. 20.

18. On this issue, see Sandy Gordon, "Capping South Asia's Nuclear Weapons Programs: A Window of Opportunity?", in *Asian Survey*, July 1994, pp. 662–73. On Indian concerns regarding Chinese naval expansion in the Indian Ocean, see Ranjit Kumar in *Navbharat Times* (Bombay), 26 February 1993, p. 4, *FBIS-NES*, 8 March 1993, p. 65.

19. A thorough analysis of Indian, Pakistani, Kashmiri, and non–South Asian views on the Kashmiri conflict is available in Raju G. C. Thomas, ed., *Perspectives on Kashmir: The Roots of Conflict in South Asia* (Boulder, Colo.: Westview Press, 1992). For extensive reactions recorded from the Indian and Pakistani news media, see *FBIS-NES*, 22 March 199, pp. 1–86. For an excellent historical survey of the Kashmir problem, see Alastair Lamb, *Crisis in Kashmir 1947–1966* (New York: Praeger, 1967). For a recent study, see Robert Wirsing, *India, Pakistan, and the Kashmir Dispute: On Regional Conflict and Its Dissolution* (New York: St. Martin's Press, 1994).

20. K. Natwar Singh, in *The Hindustan Times*, 15 October 1993, p. 13, *FBIS-NES*, 27 October 1993, p. 59.

21. Bhabani Sen Gupta, *The Hindustan Times*, 30 April 1993, p. 13, *FBIS-NES*, 11 May 1993, p. 56. See also T. T. Poulose, *The Hindustan Times*, 28 December 1992, p. 11, *FBIS-NES*, 27 January 1993, pp. 55–7; Afsir Karim (Major General, Ret.), "IDR Comment," *Indian Defence Review*, July 1993, pp. 7–8, in *FBIS-NES*, 3 September 1993, pp. 33–4.

22. "Pressures Again," *FBIS-NES*, p. 52.

23. See, for instance, Jasjit Singh, *Indian Express*, 27 March 1993, p. 3, *FBIS-NES*, 8 April 1993, p. 46

Ψ

"Honest Brokers of Information"

Dan Rather

A S A BEGINNING, I WANT TO MAKE a confession: I am not a sailor. For a brief time during the Korean War I served in the United States Army Reserve, the Second Armored Division. I was a private. This included short bursts of active duty, training at what were then Camp Chafee, Arkansas, and Camp Hood, Texas. Later, but also during the Korean conflict, I was a private in the Marines. This was full-time, active-duty service, but it didn't last long and—as was the case with my Army service—it was undistinguished.

These experiences, however, did leave indelible marks. For time invested, time spent, I believe I may have learned more from those brief, intensive brushes with military training than from anything else in my life. The discipline and dedication to mission exemplified by those officers, commissioned and non-commissioned, who tried to train me were eye-poppers and mind-openers for me. The commitment to country and to excellence of those teachers is burned in my memory forever. So is what they taught through example about ancient words and values such as honor and valor.

This may make me biased. If so, so be it. For that I have no apologies. But to friend, foe, and those in between, I can and do say that my life since then has been dedicated to trying to make of myself a journalist of integrity—one who believes in Independent journalism, with a capital "I," the kind of journalism

that plays no favorites, pulls no punches—whether covering crime, conventions, or combat.

It may surprise, even astound you, but I consider myself to be in the "national security" business, every bit as much as you are. In some ways, perhaps even moreso. Here is why, and how.

Yours is the sacred responsibility to defend our beloved nation from enemies beyond our borders. Part of mine is to help with that, by serving as an honest broker of information about what is happening internationally. But an even larger part of my duty as a professional is to be a guardian of democracy within. "National security" in our country begins with conserving the Constitution, including the Bill of Rights. To do that, to meet that responsibility and that trust, I, and every other journalist trying to be worthy of a free press, strive to be a kind of civic educator, stimulating citizens' interest in self-rule and providing specific information citizens need to keep their nation secure and to hold their government accountable. This includes, of course, the military arm of the people's government.

In preparation for our visit today, I was reading Christopher McKee's book, *A Gentlemanly and Honorable Profession.** Perhaps you know it. As I read, the thought occurred that the book is important if for nothing but the title alone, partly because it is so reminiscent of the term "an officer and a gentleman." Taken together, the title of the book and the familiar term compose a self-image that I know is prevalent in the officer corps of all the U.S. armed forces. And I have reminded myself that especially in addressing a group of senior officers, one must keep this in mind. You adhere to a code of honor and principle; you are and you must be, regardless of gender, officers and gentlemen.

Many of your fellow Americans do not realize that this is a living sentiment. They include many journalists. I am not one of them. Whatever my other faults—which I know to be many—I do know that you are dedicated to lives of honorable service, and that no man or woman reaches your status in the world's best military force without dedication to the ideal of living your professional life as . . . an officer and a gentleman.

For those who are joining us from other countries today, I can say that I have seen similar attitudes in some military officers in some countries.

This is something like the code of chivalry that guided the knights of yore. It may surprise you to know that there is a strain of this in my own profession. Perhaps now, in the 1990s, it is a fading and distant strain, but still at least perceptible. This is the belief that one can be, should be, must be a journalist and a gentleman if one is to be recognized, over the length and breadth of a long career, as a first-class, world-class reporter. The late, great Edward R. Murrow made this clear at CBS News from the beginning, when he helped to invent electronic journalism and personally hired the very first team of CBS News correspondents.

---

*   For this and other books mentioned by Mr. Rather, see "Recommended Reading," page 42. *Eds.*

I have taken you through this to acknowledge your history and your code, and to call your attention to my own, which is shared by many others in my craft, many more than you may think exist.

Whatever you or others among your peers may believe about the American press, know this: There are among us those who strive every day to abide by a code of honor as exacting as your own. We seek to maintain ours as a gentlemanly and honorable profession. The problem with this approach is that journalists sometimes behave in less than honorable fashion. I do not except myself from this criticism. We make mistakes. We have our bad days. And we do have in our midst some—perhaps I should say many—who make little or no effort to conduct themselves along the lines of an honorable journalistic code. And yes, we do have some who scoff at even the idea of any such code.

You may want to consider how close, if at all, this is to your own experience in the military, with the military's own ideals. We all know that whether one is speaking of the Ten Commandments, the officer's code of conduct, or the journalist's code of ethics, striving for perfection is one thing, achieving it quite another—whether one is speaking of a person or a group. It is true that, especially in the recent post-Vietnam past, there have been instances in which some journalists have behaved in less than honorable fashion toward the military. And I believe the reverse of that is also true.

A second book I want to mention is John Lehman's *Making War.* It is both a chronicle and a polemic on the conflicts within the American government over war powers, a fundamental aspect of national security. This conflict is constitutional: the executive branch versus the legislative. This conflict is also partisan and ideological: left versus right. It is also institutional: the so-called mandarins, who have experience and the presumption they know best, versus the rest of the world. What impressed me in this book is the fact that we of the press often are caught in between the lines of these conflicts. This has led to us being both used and abused. It is powerful food for thought when addressing the topic of the military and the press.

The independent, ethical journalist, trying to do work of integrity and trying to fulfill the role of an honest broker of information, today faces tremendously difficult new challenges. To have any chance of meeting those challenges, such a journalist needs the help of honest military leaders committed to constitutional government, civilian control, and other democratic ideas and ideals. History has taught us that much depends on those ideals—and on such honesty.

I'd like to talk now about history, recent and ancient: its uses and its limitations. History is tricky. It is elusive, ambiguous, and sometimes unfathomable. As Stanford historian James J. Sheehan has written, "History often seems to lie just beyond our reach. But at the same time, it is all around us,

shaping the way we view the world and insinuating its lessons for the future. And this can be dangerous."

Let's take the Persian Gulf War as an example. The history of the Persian Gulf War, the biggest military action in recent history, is already badly skewed and is at risk of being forever skewed in many ways. For example, little if any credit is now given to the United States Navy's air forces and carrier groups, who played such an important role as a highly mobile deterrent to any further encroachments by Iraq immediately after the invasion of Kuwait. The Navy's positioning also allowed the expeditionary force to get into place, and when combat with Iraq began, the Navy gave the commander of Operation Desert Storm more flexibility and more options. This is the kind of interservice cooperation to which attention must be paid, not only because it works so well but because the opportunity to practice such cooperation is too seldom seized. But make no mistake, the United States Navy contributed to the kind of victory of which legends are made, from the ringing, windy plains of Troy to Normandy: doing the impossible, and doing it in record time.

But—and this is the reason for raising this now—*over-* censorship and control of the press hid much of the accomplishment at the time and has shrouded much of it since then. The shroud includes a weave of confusion and uncertainty caused by the fact that so little *independent*, first-hand record was allowed to be compiled by independent witnesses. History may not give this victory the full measure of what those who earned it deserve because the record is sparse, and what there is of it is confused and confusing and not compiled by independent sources.

There are many reasons, some of them accidental and simple luck of the draw. There are many other reasons having to do with personalities, bureaucracy, interservice rivalries, and battles for budget dollars. For the purposes of our discussions here today, just note that too many unnecessary controls and ill conceived policies concerning the flow of information fogged up a great story of great skill, great strategy that worked, and a mighty triumph. And this is a reminder that an overemphasis on censorship and control of information has many dangers for the country and for the military itself. But enough of the example. Back to the overall second point, about the limitations of history in preparing for war—including how the press is to fit in.

It can be dangerous to apply the lessons from past battles to the future. This is because what are believed to be "lessons" may be the wrong lessons. It can even be dangerous to apply the lessons from past wars about propaganda and press relations—or, as the military prefers (I do not), "media" relations. This is the point: just as many lessons that naval historians believe were learned from one previous war or another about fighting turn out to be wrong, so it is with many lessons about news and propaganda.

The general thesis, that many lessons believed to have been learned from previous wars turn out to be wrong, is brilliantly made in British historian Michael Howard's book, *The Lessons of History*. In a chapter of the book entitled "Men Against Fire," he writes that on the eve of World War I the leaders of every European army frantically searched recent history for clues to what was about to happen and how to deal with it. The war between Russia and Japan, 1905, was closely studied for the lessons it supposedly taught. The lessons that particular war was believed to have demonstrated—the lessons European generals believed they had learned—included this: well disciplined and well led troops could generally triumph over firepower. This turned out to be wrong, given the improved weaponry that was developed after the Russo-Japanese War and before World War I. It cost many lives. The belief helped open doors to disaster on World War I battlefields. The military's vaunted historical studies were of little use in the 1914-to-1918 slaughter.

Generalizing from false premises based on inadequate evidence is dangerous. It was dangerous in the aftermath of the Vietnam War. It is dangerous now in the wake of the Persian Gulf War, both as applied to the way the war was fought and to the way the war was reported.

Let me state something else clearly and with the hope that, if you remember nothing else from my remarks, you will remember this: What the U.S. military believes it learned about news coverage and how to handle the reporting of war from the Persian Gulf experience is not likely to be of nearly as much value in the next war as many of our political and military leaders now seem to believe. The reasons: the technology of news coverage is changing so much, so quickly; the internationalization of news coverage is spreading so far and wide, so quickly; and, this was a short war, with few casualties on the allied side. (Also, the other most recent episodes of extreme press restrictions, Panama and Grenada, were comparative skirmishes.) The next war in which we are involved may be similar, but odds are that it will not be. Certainly not all future wars will be. (Yes, I too pray that we may never have to fight another war. And I too pray that if there must be another war it will be short, with few American casualties. But what we are talking about here is not prayer but preparedness, in case—as I suspect— reality turns out some other way.)

And a fourth reason: The press . . . the news "media" . . . will almost certainly behave differently, under different leadership, than it did during the most recent major conflict. Put another way, the next war will not be happening so closely behind the Vietnam experience, with all of the Vietnam War's ramifications on the attitudes of the public and on those of political, military, and press leaders.

Now, some quick commentary and a few details to fill in around those main points.

About the changing technology of news coverage: Miniaturization of equipment and other advances are making everything from cameras to the electronics involved in reaching satellites much more adaptable to battlefield conditions than anything available in the Persian Gulf War. Example: CBS News had some of the smallest, most up-to-date equipment for live, on-scene coverage. It was part of what made CBS the first to report with live pictures and sound from Kuwait City. It fit on the back of a jeep. Very soon, one correspondent will be able to carry all that it takes inside a backpack, and soon after that, it will all fit in the pocket of a bush jacket. Besides this, there is the fact that independent pictures taken from satellites are increasingly available to news organizations, not just to the military and intelligence agencies. All of this, and more, in the exploding world of new, smaller, better technology has ramifications wide and deep for how much and how little control any commander may have over what is and is not covered. This is especially true when you consider the rapid internationalization of news coverage—including mergers of international news organizations and cooperative news-gathering efforts by news organizations of different nations.

About short wars: Quick, decisive wars with few casualties on your side make it comparatively easy to get control and keep control of news coverage. Stonewalling, sophistry, even outright lying may work, may hold for a short time, especially when the euphoria of victory overwhelms all. Long, bloody wars, in which the outcome dangles in doubt, make it harder. I believe they make it impossible in a society such as ours. That, let there be no doubt, I believe is an *advantage* . . . yes, an advantage . . . for our warriors. *We* may—you and I, military leaders and journalists—agree to disagree about this. But I do fervently believe that in a constitutional republic based on democratic principles, such as ours, a high degree of communicable trust between the leadership and the led is absolutely essential, especially in times of crisis, such as wars.

This, I believe, is *the* great lesson of the Vietnam War, one that *will* stand the test of time. There is an old cliche: "In war, truth is the first casualty." It doesn't have to be. And one of Rather's Rules of War Coverage is, it had better *not* be, not when the United States of America has fighting men and women in the field. For *our* country, I believe, in war truth is our best weapon, even the tough truths; even the truth, when it *is* true, that we are getting the hell kicked out of us. I am not saying that every commander in every circumstance must tell every reporter the truth, the whole truth, and nothing but the truth in any and all circumstances. I *am* saying that it is best not to lie, it is best to tell as much of the truth as possible, as quickly as possible. In the United States of America, only an informed citizenry can and will defend itself. In our beloved country, only an informed citizenry will send its young people to fight and die for any extended period—and only then if American citizens are convinced that the cause is just

and worth the price, and that no other reasonable course is open. It is one man's opinion, clearly labelled—this man's—but I believe any military commander who tries to mislead about the truth very much for very long is doomed; and there is high probability that the forces he leads are doomed as well.

In war, truth is the first necessity. But in war, as in so much else in life, the easy wrong is tempting in the face of the tough right. Political leadership is especially susceptible to this. An example: It was the easy wrong to make the American people believe during the Vietnam War that they did not need to go all-out, make major sacrifices—that is, *everybody* make major sacrifices—in order to win. In the short run, it worked; in the long run, it was a grievous error. The officers and men who actually had to fight the war knew from early on how difficult it was and that an all-out effort was necessary if the United States was to prevail. So did journalists who covered the fighting first-hand. But the top political leadership of the country, Republican and Democrat, was determined to have the people believe otherwise. And I'm sorry to say a few top flag-rank officers went along to get along—and, as the saying goes, the rest is history.

This much we—military people, journalists, and citizens in general—must not forget; we forget it at our peril. The consent of the governed is basic to American democracy. If the governed are misled, if they are not told the truth—or if, through unnecessary official secrecy and deception, they lack information on which to base intelligent decisions—the system, some system, may go on, but not a constitutional republic based on the principles of democracy. Political leadership may survive the politics of lying, at least for relatively short periods. The country may *not* survive sustained politics of lying, not for long anyway. And the ultimate military mission, war, cannot be sustained for long and cannot be victorious in a society such as ours if the military systematically engages in the politics of lying.

This is tough, harsh talk, I know. It does not suggest that we disagree, you and I, America's military and America's journalists. Indeed, I believe we do agree on the basics: the need to get the American people the truth and straight information about their fellow Americans in uniform. It is in the nature of political leadership to want to drive a wedge between us. I see us as partners in patriotism, each needing the other to fulfill our different roles—roles that sometimes place us in adversarial positions, but partners in trying to get the truth to our fellow citizens. We should be alert to, and resist, efforts to wedge us. In that spirit, together, the military and the journalist, two great American professions, can work out ways to work together, whatever the new and different demands are for keeping the peace and fighting the next war, if there is one.

*　　*　　*

In the question-and-answer period that followed, an exchange took place that illuminated an issue fundamental to Mr. Rather, the Naval War College audience, and the Military-Media Conference itself. (The editors)

Questioner. Commander . . . United States Navy. Mr. Rather, about ten years ago, I saw you on a PBS show; it had to do, I believe, with ethics in America. And on that show you were given a scenario where you were attached as a press reporter to an enemy squad. They were laying in wait for an ambush on an American patrol coming up. You were asked what would you do in that scenario, and you said you would remain quiet and report on the incident. My question to you is, in the past ten years, do you still stand by that statement; and if you do, how do you equate that with your prepared remarks, where you said we are partners in patriotism?

Mr. Rather. I want to say this with great respect, but sir, you're wrong. You have the wrong fellow. I didn't say that.

Q. Then Mr. Rather, I'd like to apologize.

R. Not at all. As one who's just said, "I make mistakes, I have my bad days," believe you me, I've been there, done that. I understand. But the thrust of your question is fair enough. It is very important to me that you understand that it was not I who said that. It was an anchor-person who said that; it wasn't this one. I have made almost every mistake in the book at least three times, and I have the scars to show for it. That mistake, I didn't make.

Under that scenario—and I've played this out in my mind many times, and it is certainly true that various journalists have different answers—my answer would have been to the contrary. I'm not sure that I can defend that to everybody's satisfaction on an intellectual level; on an international, professional-journalism, intellectual level, it may not be defensible. But make no mistake, whatever my errors have been and are, I am an American reporter, and I have many—and again, I know that sometimes this is hard for an audience such as this to believe, [though] I don't honestly believe it is difficult—I have many of the same emotions that you do. I do not honestly think that I could stay in that circumstance and not shout, send up a flare, do something.

Now, the core of that question is something with which journalists struggle. The mainstream of American journalism, for better or for worse, remains committed to both the idea and the ideal of objectivity. I mentioned twice in my prepared remarks— and I did so for a purpose—the phrase "honest broker of information." The ideal is to be that in every way, every day, on every story, [to be] objective. Reporters sometimes say, in their offhand way, "Listen, I cover horse races. I don't breed horses; I don't teach jockeys; I don't bet on horses; I just come to the track and I describe the race." Now the ideal is that kind of

objectivity, even when it comes to covering combat situations. So you will find reporters—I don't want to mislead you—you will find reporters who make the argument that to be objective, to really meet the idea and ideal of being an honest broker of information even under those circumstances, . . . you have an obligation to keep your mouth shut. I don't agree with that, but I want to make sure you understand that there are many journalists, including many American journalists, who do. . . .

Recommended Reading

Christopher McKee, *A Gentlemanly and Honorable Profession: The Creation of the U.S. Naval Officer Corps, 1794–1815* (Annapolis, Md.: Naval Institute Press, 1991); John Lehman, *Making War: The President and Congress from Barbary to Baghdad* (New York: Macmillan, 1992); and Michael Howard, *The Lessons of History* (New Haven, Conn.: Yale Univ. Press, 1992). [The books above were mentioned in Mr. Rather's remarks.] Edward R. Murrow, *In Search of Light: The Broadcasts of Edward R. Murrow, 1938–1961*, ed. Edward Bliss, Jr. (New York: Knopf, 1967; London: Macmillan, 1968; and New York: Avon, 1974). John R. MacArthur, *Second Front: Censorship and Propaganda in the Gulf War* (New York: Hill & Wang, 1992); Eric Sevareid, *Not So Wild a Dream* (Cutchogue, N.Y.: Buccaneer, 1993); and Phillip Knightley, *The First Casualty: From the Crimea to Vietnam: The War Correspondent as Hero, Propagandist, and Myth-Maker* (San Diego, Calif.: Harcourt Brace, 1976).

--- Ψ ---

Call for Papers and Participants

The Netherlands Association for Maritime History, in cooperation with the Netherlands Maritime Museum at Amsterdam and the Maritime Museum Prins Hendrik at Rotterdam, and in association with the International Maritime Economic History Association, announces that the Second International Congress of Maritime History will take place in Amsterdam and Rotterdam on 5–8 June 1996. The Congress has as its theme "Evolution and Revolution in the Maritime World in the 19th and 20th centuries." It will be organized in three thematic sections: "Nautical Science and Cartography"; "The Construction, Equipment, and Propulsion of Ships"; and "The Management of Shipping Companies, Navies, and Ports."

Requests for information can be sent to Mrs. Corrie Reinders Folmer, Box 201, 2350 AC Leiderdorp, The Netherlands.

The Silent War against the Japanese Navy

Captain Duane L. Whitlock, U.S. Navy, Retired

O N THE DAY THE BOMBS FELL on Pearl Harbor, the U.S. Navy, or at least a tiny segment of it, had had the Imperial Japanese Navy under attack for about twenty years. The attack was, of course, a silent one, of which the Japanese were totally unaware. It began in 1921, when the Office of Naval Intelligence (ONI) surreptitiously acquired a photographic copy of the "Imperial Japanese Navy Secret Operating Code—1918."[1] The code was in essence a dictionary containing a hundred thousand entries, and it took five years to translate; only two Japanese linguists were available, and there was no particular urgency or incentive attaching to the project. After all, having a code book is of no great advantage if one does not have access to messages being encrypted in that code.

ONI at the time did not have that access, and gaining it was not a simple matter, because the Japanese use a different telegraphic code for radio communications than does the rest of the world. Keyed to the Japanese alphabet, or

---

Captain Whitlock entered the service in June 1935, became a radioman, and was specially trained to intercept Japanese naval radio communications. He served as an intercept operator in Hawaii and on Guam, became a self-trained analyst in 1940 while stationed in the Philippines, and began producing intelligence estimates on the Japanese navy's air, surface, and subsurface operations. Evacuated from Corregidor in March 1942, he continued to produce intelligence on the Japanese navy throughout the war, first from Australia and then from Washington, D.C. Commissioned temporarily in 1943, he received a permanent commission after the war, attended George Washington University, and served the rest of his career in the naval cryptologic and intelligence communities. After attending the Naval War College in 1958, he served as a cryptologic advisor on the staff of the Commander in Chief, Pacific Fleet. Retired since 1967, he is the author of *Critical Thoughts and Notions* (Danville, Calif.: Omega, 1988).

This article is adapted from a paper delivered on 11 August 1994 to a conference on "World War II in the Pacific" at Crystal City, Virginia, cosponsored by the Naval Historical Center, U.S. Naval Institute, Naval Order of the United States, Naval Historical Foundation, Marine Corps Association, American Society of Naval Engineers, and Marine Corps Historical Foundation.

---

syllabary, known as Kata Kana, it contains nearly twice as many dot-and-dash combinations as the Morse code. Kata Kana, sometimes referred to as "hen tracks," is a simple pictorial means of phoneticizing the Japanese spoken language. In 1923, the Chief of Naval Operations (CNO), perhaps unaware of the nature of the Japanese telegraphic code, requested that Asiatic and Pacific fleet radio operators listen in their spare time for enciphered foreign radio messages.[2] To what extent this invitation served its purpose is unknown, but several Navy and Marine Corps operators in the Far East did teach themselves to recognize and intercept Japanese radio communications. One of these operators, Chief Radioman Harry Kidder, was serving in the Philippines. With the help of the Japanese wife of a shipmate, he learned the Kata Kana syllabary, taught himself the telegraphic equivalents of all the Kata Kana characters, and began to intercept Japanese messages.[3] Whether anyone in Washington was aware of his accomplishment at the time is not clear; that it paid enormous dividends in years to follow is an indisputable matter of record.

A few other operators on the Asiatic Station somehow learned to write Kata Kana characters and copy Japanese messages with a pencil, though none ever gained the stature of Harry Kidder. Initially, intercept operations were uncoordinated and piecemeal, carried out on board only the one or two ships of the Asiatic Fleet that happened to boast a self-trained Kana operator. In 1924, to obtain more legible copy and eliminate writer's cramp, Washington purchased a few specially designed Japanese typewriters.[4] In that same year, the first shore-based intercept station was established, in the American consulate in Shanghai.[5] Its primary target was the diplomatic radio network serving the numerous Japanese consulates throughout China. In 1927, this network became the prime target also of self-trained Marine Corps operators at the Marine detachment in Peiping (as it was then known, modern Beijing). Originally designated, in the phonetic alphabet of the time, Station ABLE, their unit was disestablished eight years later when both the Japanese threat to the city became too pressing and personnel limitations caused the Marine Corps to withdraw completely from intercept work. Responsibility for the diplomatic network was shifted to the headquarters of the Fourth Marine Regiment in Shanghai, which possessed an enclave of career Navy intercept operators trained in Japanese traffic. Their unit became the new Station ABLE.[6]

In 1926, ONI finally finished translating the 1918 Japanese Navy code book, acquired in 1921. Code book updates were obtained, again surreptitiously, in 1926 and in 1927. Given the cover-name "Red Book," the translation was turned over to the Director of Naval Communications (DNC), for whom it served as a constant incentive to build up a radio intelligence organization.[7] Having the code but not the skilled personnel needed to intercept Imperial

Japanese Navy (IJN) messages in significant quantity, the DNC, with the assistance of ONI, set about carefully screening and selecting a few well qualified fleet radio operators. To train them in Kata Kana and the Japanese telegraphic code, a school was set up in a specially constructed blockhouse on the roof of the old Navy Department building in Washington, D.C. (Graduates of this school were eventually venerated as the "On the Roof Gang.") The search for a qualified instructor turned up Chief Kidder, who happened to be serving in the Navy Department communications center. The school opened in October 1928, and in the next eighteen months Kidder trained and graduated three classes.[8] Eight graduates were sent to Guam, where, under the tutelage of another self-taught Kana operator, Chief Radioman Malcolm Lyon, they established the Navy's second intercept site, Station BAKER.

Scarcely had this site come into existence when, in 1930, the nine enlisted men stationed there scored an intelligence coup of historic significance. Monitoring Japanese naval communications, they were able to deduce from patterns alone that the entire fleet had sortied from Japan and was engaged in an exercise of massive proportions. The Japanese navy had even managed to call up all its reserve ships and personnel and send them to sea with the rest of the fleet, all with such secrecy that the U.S. naval attaché in Tokyo was unaware of anything unusual.[9] The material intercepted by Station BAKER slowly made its way to Washington. There the small cryptanalytic staff labored on it for many months, using the Red Book, ultimately decrypting enough to discover that the activity detected by Guam had been a triennial "Grand Maneuver," in this case a test of a Japanese navy plan to support an invasion of Manchuria—as would take place the following year.[10]

This episode pointed up the dire inadequacy of the funds and facilities devoted to the intercept and processing of Japanese navy radio communications. To serve the two senior admirals in the Pacific theater, major decrypting units were needed in Hawaii and in the Far East, with many trained intercept operators, cryptanalysts, and Japanese linguists. Developing a radio intelligence organization of this scope turned out to be a long-range project, and it was not completed before the outbreak of the Pacific war. In fact, were it not for the nudge given in 1930 by Station BAKER, there is substantial reason to believe it would not have been ready in time to contribute to the battles of Coral Sea and Midway. As it was, the Guam operators had alerted authorities to the possibility of deriving intelligence from enemy communications without actually decrypting the messages.

Notwithstanding, a firm decision was made to explore that potential on the occasion of the next Japanese navy Grand Maneuver, which was expected to occur in 1933. This decision was given considerable impetus when in December 1930 when the Japanese navy superseded its 1918 code book, thereby eliminating

the American ability to decrypt its messages. The Red Book was now useless for all but historical purposes, and ONI found itself unable to obtain the new code in the way it had the old one. Accordingly, the new book had to be reduced by cryptanalysis, a process that consumed most of the next five years.[11] Admiral Upham, the Commander in Chief of the Asiatic Fleet, therefore assigned his staff radio intelligence officer, Lieutenant Joseph Wenger, to derive all possible intelligence on the expected exercise by means other than cryptanalysis. Wenger arranged to receive the intercepts made by stations ABLE and BAKER and also some temporary sites. The IJN maneuver occurred as predicted, and Lieutenant Wenger spent the next six months performing after-the-fact traffic analysis. That effort produced a 115-page report laying out in considerable detail the composition and disposition of the forces involved, including the identity of the individual ships and commands. His report was sent back to Washington, where, three years later, enough of the new code (the "Blue Book") had been recovered to affirm that Lieutenant Wenger had been essentially accurate.[12]

Admiral Upham did not wait for that assessment. He was so impressed with Wenger's work that he immediately made a strong representation for a radio intelligence center in his command. Specifically, he requested that an intercept unit complete with a decryption center be located in what war plans referred to as the Ultimate Defense Area of Manila Bay, with the mission of preventing surprise attack.[13] This recommendation is historically significant for two reasons. It was undoubtedly the first time that a U.S. Navy fleet commander ever requested that a decryption center be placed under his command; second, it marked the beginning of a willingness in the U.S. Navy to amend the long-standing precept that the military commander should always be guided by estimates of enemy capabilities, never of intent.

Implementation soon began. Three graduates of Chief Kidder's first class and two from his second had been sent to the Philippines, where late in 1929 they attempted to set up an intercept station at Olongapo. Unfortunately, they were delayed by having to assume primary responsibility for all regular Navy communications in and out of the base there.[14] As a result, they did not really get on with intercept duties until August 1932, as Station CAST. Station CAST was augmented as recommended by Admiral Upham; it was transferred from Olongapo to Mariveles and then to the Navy Yard in Cavite. In mid–October 1940 it would finally establish itself in a special tunnel built for the Navy at Monkey Point on Corregidor, two months later absorbing the mission and the personnel of Station ABLE in Shanghai, which was closed.[15] In the meantime, in 1935, a new intercept site, Station HYPO, was opened on the windward side of Oahu, and a decryption unit was established in the basement of the administration building at Pearl Harbor. In June 1939, however, the Japanese navy once

again changed its operating code, and the nine years of cryptanalytic effort that had gone into recovering and exploiting the Blue Book went down the drain.

The new code, designated JN-25 by the U.S. Navy, was of a drastically different type than its predecessors. Made up of five-digit groups, it allowed for forty-five thousand entries in each of two dictionaries—one set up alphabetically for encoding, the other arranged numerically for decoding. For the cryptanalyst, who had to gain entry to the code through the numerical dictionary, this provision had the effect of scrambling the alphabetical order of the code, thereby complicating the process of assigning meanings to individual code groups. But the Japanese had erected an even greater barrier to that entry by enciphering each already encoded message by adding arithmetically a different and arbitrary five-digit number to each of the five-digit code groups contained in the message. Generated randomly, these arbitrary enciphering groups were drawn systematically from a separate book and were added, one for one, to each of the basic code groups awaiting encipherment. "False addition" was used to combine these arbitrary groups, or "additives," to the basic code groups. In false addition, no numbers are carried over; if the additive 49238 were added to the code group 77739, for example, the result would be 16967, which would be the five-digit group that was actually transmitted. Inasmuch as there were eighteen thousand of these additives in the enciphering book, there existed a potential to encipher any one of the forty-five thousand basic code groups in eighteen thousand ways. The system seemed unbreakable: one needed the additives in order to recover the basic code groups but had to have the basic code groups to find the additives. The cryptanalyst's only hope was to sift all intercepted messages very carefully, hoping that Japanese code clerks would eventually make enough careless mistakes to permit entry into their system.

Responsibility for breaking JN-25 was shared between the Navy Department (now Station NEGAT) and the decryption unit at Station CAST, on Corregidor. The unit in Pearl Harbor, Station HYPO, was assigned to work on the Imperial Japanese Navy's high level cipher used between admirals. That code was never broken, mainly because the infrequency of its use denied cryptanalysts a sufficient depth of message traffic.[16] Depth was not a problem with respect to JN-25, but, even with the opportunities provided by one or two errant Japanese code clerks, the very nature of that code made progress extremely slow and tedious. In a division of effort, Corregidor was to attack the code on a current operational basis; Washington was to follow up several weeks or months later, with the primary aim of building up the dictionaries to support operational exploitation. Between June 1939 and December 1941 Washington did decrypt a few JN-25 messages, but they provided little insight into the current intelligence picture.

The Japanese also made several changes in the code during that period, which put Corregidor and Washington out of sync.

Three days after the Pearl Harbor attack, the decryption unit of Station HYPO joined in working on JN-25, but it was not until 16 March 1942 that the combined recovery effort finally allowed Corregidor to issue its first complete decrypt of a current Japanese message. That message revealed that the Japanese had assigned the geographical designator "AF" to the island of Midway.

Until that date and since June 1939, the only current radio intelligence available on the Japanese navy had been produced by methods short of decryption—that is, by traffic analysis.[17] Most of that intelligence was being produced by a few self-taught enlisted analysts who had moved up from intercept duties. Much of it was of a technical nature, relating to the identification of encrypted call signs, which the Japanese changed periodically, and to the recovery of the enemy's communication plan. In pursuing these tasks, the analysts learned a considerable amount about how the IJN was organized, and they periodically produced and updated tables of organization (i.e., orders of battle) for its entire fleet.

For years, information of this nature had been included in the monthly report that each intercept station was required to file. At Station CAST that practice began to change in the summer of 1941, when Lieutenant Jefferson Dennis, detached from duty as the Asiatic Fleet radio intelligence officer, arrived on Corregidor to await transportation back to the Navy Department. A very capable analyst, while at Station CAST he began to produce a brief daily summary on the location and activity of various Japanese ships and aircraft as deduced from communications patterns; he sent it by radio to the Commander in Chief, Asiatic Fleet. Studying his methods, the unit's three enlisted analysts began to produce a few items of current intelligence, which Dennis included in his summaries. Initially, these items related only to events of the current date, correlated wherever possible with previous estimates, but soon a new dimension was added—interpreting enemy intent.

The change came about when one of the enlisted analysts noted an intriguing combination of addresses on a short encrypted message; it led him to suspect that a division of destroyers was departing from Taiwan to the island group of Palau, east of the Philippine island of Mindanao. Lieutenant Dennis, after careful thought, tended to disagree, stating that Japanese ships destined for Palau normally proceeded by way of Saipan (due east of Manila) or Truk (over a thousand miles east of Palau). Two days later, however, a PBY reconnaissance aircraft flying out of Cavite reported three Japanese destroyers two hundred miles east of Manila on a southeasterly course—toward Palau. Thus it became apparent that traffic analysis had some potential to predict enemy intent, but because JN-25

was not yet yielding current intelligence, there existed no way to assess the limits of that potential.

When Lieutenant Dennis departed, the enlisted analysts of Station CAST continued to originate periodic intelligence estimates, dispatching them through the Commandant of the Sixteenth Naval District to the commanders in chief of the Asiatic and Pacific fleets, Station HYPO at Pearl Harbor, and CNO. Following its lead, HYPO began filing similar estimates, through the Commandant of the Fourteenth Naval District. In the fall of 1941, both stations detected and reported several organizational changes within the Japanese navy, one of which saw the consolidation of all land-based air units into a new air fleet consisting of several newly formed flotillas. In October, the analysts on Corregidor incorporated all of these changes into a new order of battle, which was submitted to the Asiatic Fleet for transmittal to commander in chief of the Pacific Fleet and CNO. In his endorsement, the Asiatic Fleet intelligence officer stated that the report could be construed in no way except that the Japanese navy had assumed a wartime disposition.

In early November 1941, those same analysts reported that Japanese merchant ships were being inducted into the navy in alarming numbers and that some 250 of those ships had been sent to ports bordering the Taiwan Strait, just north of the Philippines. Then, in late November, traffic analysts both at Pearl Harbor and on Corregidor reported that two powerful Japanese task forces were approaching the Philippines, from the north and the east; on the basis of communications patterns, the report laid out the composition of both of those forces in considerable detail. Corregidor, unfortunately, made the mistake of estimating that the large Japanese carriers were still in home waters, although none of them had been noted communicating for several days.[18] While this error was to contribute virtually nothing to the debacle at Pearl Harbor, it did teach both the producers and users of radio intelligence a valuable lesson about the limits of traffic analysis: it has little if any effectiveness against a target that elects to observe radio silence.

Cryptanalysis, of course, is also hampered by that stratagem, but only to a lesser degree, for if cryptanalysts have broken the enemy's code, they can read messages being broadcast to the target "in the blind" (i.e., without established two-way contact). They can do so provided, of course, that traffic analysts have broken the enemy's call-sign system and can identify the intended recipients. In this regard, most decrypted messages are never fully intelligible until their encrypted call signs and addresses have been deciphered. The complementary nature of these two basic forms of analysis became more and more apparent as the Pacific war progressed. The first indication of Japanese intent with respect to Midway, for instance, appeared in a traffic analysis report filed by Corregidor

in early March 1942; that estimate was backed up three days later by the JN-25 decrypt assigning the "AF" designator to the island. By that time, traffic analysts on Corregidor and in Hawaii were reporting almost daily on the buildup of ships and aircraft at Truk and Rabaul. These reports collectively revealed quite clearly a Japanese intention to launch a major thrust into the Coral Sea and probably toward Midway. They also provided the basis for the estimate given to Admiral Chester W. Nimitz by his intelligence officer, Edwin T. Layton, that the Japanese had amassed in the Truk area some three hundred ships for impending operations. (After the war, the Japanese indicated that the figure had been 280.)[19]

On 26 May 1942, "it was estimated that 60 percent of Imperial Navy traffic was being intercepted (by the U.S. Navy) and 40 percent read, although the content recovered from the typical message averaged only about 10–15 percent."[20] Obviously one does not get much intelligence out of a fifty-word message if only perhaps eight of the words can be read. Although the ability to read Japanese naval messages was expanding rapidly just before the battle of Midway, that less than fifty of the 280 ships later acknowledged to have been present were ever mentioned in JN-25 decrypts points to a subtle limitation as to what intelligence can be derived through cryptanalysis.

Throughout the entire war, the Japanese navy never attempted to disseminate a complete operation order by radio; apparently, as in the U.S. Navy, such orders were always delivered by hand. While JN-25 partial decrypts relating to the battles of the Coral Sea and Midway made tantalizing reference to operation orders and to such task organizations as the "striking force," "assault force," "Moresby force," etc., the composition of these groups had to be deduced almost exclusively from traffic analysis.

In fact at the outset of the war, traffic analysis was, as it had been for many years, the only source of current intelligence bearing upon the strategic posture and the disposition of the surface, subsurface, and air elements of the Japanese navy. As cryptanalysis began to catch up with current events in 1942, it started to add to the traffic analysis picture the timely and precise details essential to achieving tactical advantage. The shooting down of Admiral Isoroku Yamamoto on 18 April 1943 is a classic example.[21] However, as has not been well understood by historians who have highlighted the many tactical successes, cryptanalysis made a rather limited contribution to "the big picture" in the "silent war" against the Japanese navy. Had it not been for the considerable number of victories mutually achieved by these two analytical methods in the silent war, the shooting war in the Pacific would have taken a far different and much more painful course.

A vital point that should not be overlooked by historians and students of the war with Japan is the fact that something more than twenty years was required

to bring on-line the radio intelligence organization that ultimately gave commanders what was perhaps the greatest strategic and tactical advantage in the history of naval warfare. That advantage shortened the war immeasurably, saved many lives, and reduced substantially the material and financial burden imposed upon American taxpayers. That such an organization ever came into existence stands as a monument to the foresight of two or three flag officers, not the least of them Admiral Upham, as previously noted, and also, at a much earlier date, Commander Battleship Force, U.S. Pacific Fleet, who in a letter of 16 May 1921 to CNO recommended that "all rated radiomen be given sufficient instruction in receiving Japanese Language Code to at least be able to recognize it when copied."[22]

The latter recommendation is likely to have come to naught were it not for the singular initiative, imagination, persistence, and ingenuity applied to it by Lieutenant Laurance F. Safford. One of the first U.S. naval officers to specialize in the new field of cryptology, he was largely responsible for introducing the art of cryptanalysis into the Navy. Heading the newly established Cryptographic Research Desk in the CNO staff (or OPNAV) Code and Signal Section in 1924–1925, he spearheaded the Navy's attack against the Japanese diplomatic codes, provided rudimentary training in cryptanalysis to one or two specially selected junior officers, encouraged the ad hoc Marine Corps and Navy intercept efforts taking place in the Asiatic Fleet, and took steps to design and acquire the special Japanese typewriters needed to enhance these and the more formal intercept operations yet to come.

Those accomplishments in turn anticipated the contributions to be made through the technical and analytical skills of carefully selected Navy radiomen. The special training needed to convert these radiomen into full-fledged intercept operators was largely devised by the radiomen themselves, and in this regard the accomplishment of Chief Radioman Harry Kidder was at least as significant as that of Lieutenant Safford. Furthermore, without the incentive provided by the enlisted analysts on Guam in 1930, the special effort to test the intelligence potential of traffic analysis might not have come to pass in 1933. It was in this test that Lieutenant Joseph Wenger proved that traffic analysis is a unique source of special intelligence. He was the father of traffic analysis in the Navy, in much the same sense that Lieutenant Safford was the father of cryptanalysis.

Remarkably, this protracted development effort had its genesis in the era of "downsizing" that followed World War I, when the allocation of such Navy funds as were available all but ignored the needs of intelligence. Then too, the pronouncement in 1929 by the Secretary of State, Henry L. Stimson, that "gentlemen do not read each other's mail" tended to place any monies openly programmed for that purpose in a very unfavorable light. Had the Navy Department allowed Stimson's ultimatum to blunt the efforts of the visionaries

noted above, there would have been no Navy radio intelligence organization, no victory in the Coral Sea or at Midway, and perhaps no decisive victory anywhere else. In the present era, one can but hope that strategic and tactical intelligence needs will never again be allowed to hang by such a slender thread. Budgetary planners, both military and civilian, need to realize that the next shooting war could well be lost if the silent war has not been won in peacetime.

Notes

1. Laurance F. Safford, "A Brief History of Communications Intelligence in the United States," Special Research History, National Archives, Modern Military Branch, Military Archives Division [hereafter SRH], no. 149, 21–7 March 1952, p. 6; and Laurance F. Safford, "History of Radio Intelligence: The Undeclared War," SRH-305, 15 November 1943, pp. 03–05.

2. Jack S. Holtwick, Jr. (Capt., USN), comp., "Naval Security Group History to World War II," SRH-355, June 1971, pp. 39–40.

3. P. L. Phillips, "Kidder: First OTRG Instructor," *Cryptolog*, Summer 1983, p. 9; and Edwin T. Layton with Roger Pineau and John Costello, *And I Was There* (New York: Morrow, 1985), p. 474.

4. Holtwick, SRH-355, pp. 40–1.

5. *Ibid.*, pp. 37–40; and "A Brief History of the Radio Security Station Fourth Marine Regiment, Shanghai, China," SRH-179, p. 2.

6. "A Brief History of the Radio Security Station Marine Detachment, Peiping, China," SRH-178, pp. 6–8; and SRH-179, pp. 8–11.

7. Safford, SRH-305, pp. 03–05.

8. Phillips, p. 9.

9. Safford, SRH-305, p. 06.

10. Safford, SRH-149, p. 12; and Safford, SRH-305, p. 06.

11. Safford, SRH-149, p. 12; and Safford, SRH-305, pp. 09–12.

12. Safford, SRH-305, pp. 14–6.

13. Safford, SRH 149, p. 12; and Safford, SRH-305, p. 19.

14. "A Brief History of U.S. Naval Pre–World War II Radio Intelligence Activities in the Philippine Islands," SRH-180, p. 3.

15. SRH-179, p. 24.

16. Safford, SRH-149, p. 15.

17. Frederick D. Parker, "The Unsolved Messages of Pearl Harbor," *Cryptologia*, October 1991, pp. 297–9.

18. *Ibid.*, p. 299.

19. Informal discussion with Roger Pineau, October 1992.

20. John Winton, *Ultra in the Pacific: How Breaking Japanese Codes and Ciphers Affected Naval Operations against Japan, 1941–45* (Annapolis, Md.: U.S. Naval Institute Press, 1994).

21. Layton, p. 474.

22. Holtwick, SRH-355, p. 39.

Ψ

Alliances in the "Gray Areas"

J. Michael Robertson

THE PURPOSES OF THIS ARTICLE ARE TWOFOLD: first, to identify certain emerging, still evolving, trends in international relations; and second, to relate those trends to present realities. It will concentrate on the evidence pointing to loose coalitions opposed to the United States and Western democracy generally.

As policy makers appear trapped between the crisis of the moment on the one hand and administration priorities on the other, identifying problems over the horizon tends to lose its priority. Yet a plausible case can be made that a security threat is emerging that, over the next decade, could challenge United States military preeminence, as states and non-state groups seek to promote their own values and interests. Much of the world is hostile to Western culture and ways, and does not see a community of interest with the United States. Only tactical agreement is possible with such a nation, as these groups see it, in part because any meaningful relationship would reveal inadequacies in their own. Such appearances would be inimical to their interests. Additionally, a situation wherein one power is preeminent (as the U.S. is today) has traditionally created animosities that have led to the rise of countervailing power or the creation of coalitions among lesser powers.

The chief danger to the United States, and Western security in general, is not a renegade Somali warlord, or even an Iraq-like regional power, but a loose, unnamed alliance structure comprising governments and nongovernment entities whose mutual interests oppose Western ones on several fronts. Those interests in general are opposition to Western democratic values and to the United States as a power that appears unchecked. This "alliance" structure—for lack of a better term—would aim to force the U.S. government either to turn

Dr. Robertson holds a master's degree and Ph.D. in foreign affairs from the Woodrow Wilson Department of Government and Foreign Affairs of the University of Virginia, in Charlottesville. He writes frequently on Latin American affairs and global strategic issues.

completely inward or to spend its energy on high-minded but peripheral foreign policy issues instead of concentrating its foreign policy attention and reduced military forces on genuine security threats.

How to test this "alliance" theory? One could make an argument that nearly simultaneous attacks by Iraq against one of its neighbors and by North Korea against the Republic of Korea would be an example of two nations collaborating to force the U.S. to fight a two-front war (the "two major regional contingencies" case that is the challenging centerpiece of current U.S. defense planning). Of course, it also could happen that each aggressor might be acting independently in pursuit of its own objectives and simply seizing an opportunity that presents itself. However, a loose "alliance" structure as posited here would require only minimal collaboration yet have a profound impact on the United States. The sole requisite for such collaboration could be opposition to U.S. foreign policy—alliances have been forged from less—or it could extend to other domains of anti-American motivation.

Thus, this type of a collaborative enterprise might be founded upon regional military asymmetry but then expand to cultural, ethnic, religious, or economic communities. Security concerns would come first, followed by what are commonly thought of as bases of relationships. As an example, Chinese power and the relative weakness of its neighbors (possibly excepting Japan) could lead to a pro-Chinese structure based on indifference to human rights, some variety of capitalist mercantilism, and an exclusionary trading bloc, each of which the United States finds anathema. Thereby, the region's political constellation could be transformed by both security concerns and cultural ties. Since the security component plays a role, perhaps even the leading role, the grouping could draw in other nations that may not necessarily share cultural ties but nevertheless recognize that military concerns dictate alignment with the new China-centered structure.

In the field of international relations, evidence is seldom as complete as one would like. Deduction and inference must inevitably be incorporated into analysis, and some degree of subjectivity is therefore present. Yet subjectivity alone does not invalidate a theory; it must be considered in light of whatever existing evidence can be marshaled.

Hence, we should not expect to find formal treaties codifying these "gray area" alliances of states and non-states, relationships that are by definition non-formal and often secretive. The term "alliance" is somewhat hyperbolic, but suggestive. The reader must judge whether the threat that is postulated seems significant; what should remain foremost is not whether formal agreements are identifiable (in fact, their obscurity may actually be a strength) but whether such relationships as can be demonstrated do jeopardize U.S. interests.

A further question is whether one can make sound judgments about strategy simply by estimating the *intentions* of those one considers potentially threatening. Intentions are easily misread. Any beliefs one may harbor about intentions can color intelligence analysis and blind one to realities. *Capabilities* should be central to analysis, simply because intentions can change virtually overnight, while developing capabilities takes time. If capabilities do not exist, then the argument that follows is inconsequential. But the evidence shows that at least a tenuous "gray area" relationship probably exists, that global dynamics help it to grow, and that its impending capabilities are threatening.

Cold War Alliance Structures

The Warsaw Pact, which in truth was centered on strict control from Moscow, resembled in its architecture a pyramid. At the apex stood the Soviet Union; the base of the pyramid contained the other Pact signatories. A useful appendage was the collection of client states that acted as surrogate forces—sympathetic Third World regimes and some supposedly "non-aligned" states. Together these made up the Soviet bloc. Additionally, the surrogates group included terrorist and insurgent movements based in Europe, Asia, Africa, the Middle East, and South and Central America; they generally occupied the front lines of the Soviet Union's expansionist aims. The cohesiveness of this interrelated structure has been described as the Soviet "collective security" system.[1]

The informal workings of this system show that it was more than just a military alliance organization. There was a clear division of labor among members in furthering Moscow's political offensive strategy, particularly in the Third World. Some states carried out specific duties, specializing in the smuggling of arms, supporting insurgents, training terrorists, trafficking in drugs, or aiding sympathetic Third World governments with intelligence gathering and the training of internal security forces. Some client states, like Cuba and Syria, were contracted to help not only in Latin America or the Middle East but in such distant areas as Africa. It may well be that these diplomatic, intelligence, and political purposes were at least as important to Soviet expansionism as the armored divisions of the Warsaw Pact.

That edifice crumbled, but the rats scurried away. Today in the former Warsaw Pact states drug smuggling and arms trafficking continue with relative impunity, only now carried out mostly by private gangs. As the drug culture in these Eastern and Central European states grows, their influence expands.[2] Their connections with the client states that survived the Soviet collapse make up part of the new anti-Western coalition confronting the U.S. today. They are particularly dangerous in that they facilitate the hemorrhaging of sophisticated or otherwise difficult-to-obtain weaponry for the former Soviet Union's radical

client states, and perhaps for terrorists as well. This very concern has moved the Federal Bureau of Investigation to open a Moscow branch office to help head off the possibility of Russian gangs stealing nuclear materials or a complete device and selling such things to terrorist groups or renegade states. According to Senator Sam Nunn, "Crime and particularly organized crime has become one of the most dangerous forces from the collapse of the Soviet system. . . . It may ultimately pose a threat to peace not only in that region but others."[3]

Ironically, the Nato alliance remained relatively static during the Cold War and has seen its only action as a formal alliance structure after that era had ended, in Bosnia. As might be expected from a system less centralized than the Warsaw Pact, greater heterogeneity has marked Nato; yet the dynamics of power entail that Nato does nothing without U.S. leadership. Other bilateral or regional relationships have been secondary to Nato, with the only possible exception being the U.S. relationship with Japan.

Throughout the Cold War, Nato was concerned with stemming the Soviet threat to Europe. Retaining its regional focus as depicted in the organization's charter, Nato was less concerned with global strategy. This changed somewhat in the 1980s, when the Reagan administration linked Third World developments to the Soviet Union and its allies—in effect, a switch from regionalism (i.e., Europe with emphasis on the Atlantic) to globalism, confronting Soviet strategy on a multi-regional scale. This globalist conception also is useful in recognizing the threat the loose alliance system presents today.

Regional Crises and Rogue States

When the Soviet Union collapsed, its client states lost their patron and much-needed financial and political support. Some, like the Sandinista government of Nicaragua, were forced to accede to elections, which the Sandinistas lost. The FMLN guerrillas of El Salvador were forced to sue for peace as a result, and Cuban foreign policy became more muted than it had been at any time since 1959. Other regional transformations occurred as well: in Africa, the Angolan proxy war was brought to a temporary end, and foreign support for the war was halted; in Cambodia the story was largely the same.

Yet some regional supporters of this type of violence carried on, the most noteworthy being Iraq. States and groups once part of the Soviet alliance structure found themselves more isolated, and more independent. Seeking to relegitimize their invariably authoritarian ruling styles, these regimes and organizations sought to exploit regional instability and enhance their own prestige—as has Iran in the Persian Gulf and in the rest of the Muslim world—or, like Cuba, to forge coalitions opposed to the United States.

The end of the Soviet collective security system meant the end of an alliance structure dominated from a central source; conversely, it has allowed the various states opposed to the West to fish in well stocked waters. The dissolution of former communist states like the Soviet Union into Russia, the Central Asian republics, and the Baltic republics, and also of Yugoslavia (the scene of a terrible aggressive war by one new state on others) has strengthened this trend toward anti-Western free-lancing. The dynamic, therefore, is towards growing anarchy and greater opportunities to associate with like-minded opponents of the U.S.-led West.

Three main ideas are important to what follows. First, with the shift in U.S. thinking from a "global" to a "regional" conception of foreign policy, one may easily fail to recognize an interrelatedness among these threats.[4] The terms "regional" and "global" pertain to power projection capabilities. The USSR had a global power projection capability, due in large part to its expansive collective security system. No successor exists that can project power in the same way; but alternative methods do exist, namely, terrorism, arms deals, counterfeiting, insurgency, and narcotics. These all flourish in the "gray areas" outside of state control (sometimes at the instigation of other states), and all are measures that over time can erode the economic power and political freedoms of the U.S. as well as its ability to project power abroad. Thus regionalism as a focus could obscure an emerging global structure that is loosely bound together around hostility to the West and the United States.

Second, any countervailing Western alliance structure is unravelling at the peripheries, chiefly among states that acknowledged their opposition to communism during the Cold War but that now fear a preponderance of U.S. power unchecked by a rival superpower. Brazil and some nations of Southeast Asia are two examples. Others might include Pakistan, South Africa under the African National Congress, and perhaps either Greece or Turkey.

Third, in some geographic areas the idea of the state as such is crumbling, while in other regions it remains strong. Particularly where it is disintegrating there is fertile ground for non-state actors like mafias, drug cartels, insurgent movements, and terrorist cells. These groups thrive among the newer, weaker, smaller, less stable states in Europe and Central Asia. This disintegrative process is ongoing even in areas previously thought secure, such as in Europe, where, as one observer recently put it, "the same mentality [as that which followed the disruption of the state system after World War I] is present again today. As in the 1930s, it reinforces trends among the smaller states to look for other partners and bilateral ties."[5]

Two Regional Powers of Note

Archaeologists have discovered that during the Second Punic War (218–202 B.C.) trade between Carthage and Rome continued largely uninterrupted. The strategic dilemma this incongruity produced for the Carthaginians has been described: "They had, indeed, remained unchallenged for so long that they had come to regard the command of the sea as theirs by prescriptive right; yet the same anti-militarist and commercialist attitudes of mind that tended to make them dilatory in their reaction to military threats also led them to spend no more on their navy—upon whose efficiency their whole commercial empire outside of Africa ultimately rested—than was absolutely necessary."[6] Let us consider two states that wish to play Rome to an American Carthage.

China. The People's Republic of China, or PRC, sees in the United States an implacable foe that must be defeated. Yet China's leaders hope that the West will continue to trade with China and make investments in that country, for they are in China's long-term interest and blind the West to China's threatening military posture as well as its ability to cause great mischief among its neighbors.[7]

Chinese doctrine supports this view. During the 1980s the People's Liberation Army concluded that, contrary to Mao's dictum of people's war, future wars would be of the "local and limited" variety and that China consequently had to modernize and streamline its armed forces. Future wars would be intense but of limited duration. The U.S. success in the Gulf war has only reinforced this assessment.[8]

To its more than three million military personnel, eight thousand battle tanks, and nuclear weapons (constituting mainly a regional threat), China has added force-projection capabilities that threaten the interests of maritime nations.[9] Emphasis on developing a "blue water" naval capability that extends power beyond littoral defense indicates a desire to play a role in areas not adjacent to Chinese territory. New marine units, enhanced amphibious warfare capability, tanker aircraft, new Russian MiG-29 fighters, and the desire to obtain an aircraft carrier battle group are indications of this trend.

One often discussed possible target is the Spratly Islands chain, a barren group with undetermined oil reserves. Perhaps more important to the United States is the location of the chain—in the South China Sea, roughly equidistant between Manila and Singapore and astride the sea lanes connecting many of America's allies and trading partners. Significant forces stationed there would enable China to pressure these nations and might mark a shift to a sea-interdiction strategy, significant in light of the American withdrawal from the Philippines.

China is also a weapons proliferator, selling missiles of up to intermediate range, particularly in the Middle East. According to the Office of Technology Assessment,

this places China in clear violation of the Missile Technology Control Regime, despite recent pledges to abide by it.[10]

Additionally, two U.S. television networks have produced major investigations of the sale of Chinese assault rifles in the United States and of the uses of wholesale companies for intelligence purposes. Supposedly local concerns such as regional security, internal stability, and technology acquisition govern most Chinese intelligence operations, yet the reach of these operations is global. To that end they have supported subversion not only in Asia but in Europe, Africa, the Middle East, and Latin America. Concludes one observer: "Chinese intelligence operations come to seem significant in proportion to a country's prospects for economic competition or military confrontation with the PRC. Also, China's intelligence support for its nuclear and missile proliferation activities alters regional balances of power and is therefore of concern to nations with a stake in world order."[11]

Over the centuries China's empire rested upon the psychological pressure it was able to impose on its neighbors. Military intimidation, espionage, and subversion form strong themes in the Chinese military classics, and they are a crucial element in reasserting modern imperial ambitions.

Iran. Leaders of the Islamic Republic believe and teach that the United States is "the great Satan." While China is a sought-after market because it is generally thought of as having tremendous export potential for Western companies, Iran has extraordinary leverage against Western powers because two-thirds of the world's known oil reserves are located in the Gulf area. Thus Iran's slight stature as a national entity is in part offset because of its chief export to the West, with oil sales growing even though Iran is labeled a pariah state.

Secondly, Iran is involved in a complex competition for influence that both demarcates and shatters cultural distinctions. As an avowedly revolutionary Islamic state, it is the marquee nation in a cultural clash between Islam and the West. At the same, time the Shi'ism predominant in Iran clashes with the Sunni majority in all other Islamic nations, specifically in Egypt and Saudi Arabia. In both respects Iran is pitted against the United States.

The Islamic leadership of Iran believes it cannot coexist with Judeo-Christian values. Adding a martial component to their brand of fundamentalist Islam, the mullahs describe their role in expansionist and violent terms. Since 1979 their actions have backed up their hyperbole. Even during the Iran-Iraq War, the Iranian Revolutionary Guard Corps (IRGC), comprising a quarter of a million men, conducted military and paramilitary operations abroad. Another method of power projection has been terrorism, with the IRGC controlling factions in Iran, Lebanon, and Libya and forming security ties with North Korea and Sandinista-led Nicaragua.[12]

One tenet of ancient Persian nationalism that remains a thread of modern Iranian foreign policy is domination of the Gulf region. Revolutionary Iran's strategy has been one of removing alien sources of power so that it can dominate the region and expand its influence beyond the Gulf. Its cause gained considerable momentum when the Soviet Union collapsed, opening the Central Asian states to Iranian contacts, and when the defeat of Iraq in the Gulf war shattered the idea of pan-Arab nationalism founded upon victory in battle.[13] The Palestine Liberation Organization's acquiescence to an Israeli state is portrayed by militant Muslims as another example of secular nationalist failure: Hamas and Hezbolah opposition to the PLO-Israeli peace process is directed by radical fundamentalists in Iran.

Equally important in this regard is the weakening of secular Arab states. Regime security and stability have become the most pressing problems confronting Middle Eastern Arab states.[14] Iran has worked to undermine the viability of secularism in the region through a campaign of terrorism, assassination, and subversion, including proselytizing through sympathetic clerics. Arab states across North Africa, near the Gulf, and on the Saudi peninsula have been targets; Egypt and Algeria have been left tottering. Subversion is supported by Iranian president Hashemi Rafsanjani, who in November 1992 reportedly urged a terrorist campaign in the United States to reinforce American isolationism and, thereby, the alienation of secular Arabs.[15]

Iran's assets to carry out this campaign include close ties to the Abu Nidal organization, Hamas in Israel, Islamic Jihad based in Lebanon, and a core of sympathetic states including Cuba and Syria. The U.S. State Department lists Iran as the world's "most active state sponsor of terrorism."[16] Iran benefits from drug trafficking in the Bekaa Valley of Lebanon and is a conduit for opium from Afghanistan. At a time when many states that engage in drug trafficking are—through various political fictions—kept off a special U.S. government list of such states (e.g., Peru and Bolivia are officially said to be cooperating with U.S. anti-drug efforts, when there is considerable evidence to the contrary), Iran remains on it. Additionally, Iran controls a counterfeiting operation in Lebanon aimed at undermining U.S. currency. It expertly reproduces U.S. hundred-dollar bills that can also be used to purchase whatever a terrorist network needs. Finally, Iran has a nascent nuclear program, imports missiles from China and North Korea, and gets technical assistance from Soviet-trained Cuban scientists. The CIA reportedly believes that Iran funds the North Korean nuclear program and may be repaid with technical assistance and enriched uranium.[17]

Tehran is trapped between a desire to expand its influence and its own weakness. It appears that Iran has only a limited capability to increase oil production, while oil prices have bottomed out, providing less return on exports than anticipated. In order to further its expansionist aims, therefore, Iran must

manipulate the supply of others. Threatened subversion and military pressure are methods of doing that. With burgeoning domestic dissatisfaction and low oil prices, the danger of the Iranian leadership acting rashly is one that cannot be ignored. Even if the theme of revolutionary Islam is toned down or blended into Persian nationalism, the chance of a desperate act is growing.

Another approach, in theory, would be for Iran to moderate its policies in order to attract new customers like the United States. Yet Iran has had some success in this area without moderating its policies. In 1992, despite Iran's record, for the first time since 1979 U.S. companies began purchasing oil at Iran's Kharg Island terminal—with Washington's consent, so long as the oil is intended for resale outside the U.S. These companies now buy more Iranian oil than the second-largest purchaser, Japan. The lesson to be drawn, it would appear, is that one can attack Western interests at the same time that one does business with Westerners. Leaders in Tehran could find themselves strengthened without having to appear at all conciliatory.

Informal Alliances

We have seen an ability to cooperate, at least in a limited sense, across different cultures with respect to missile sales, technological cooperation, nuclear programs, and so forth. A further question is whether that cooperation can reach across differing cultures to a more substantial degree.

Culture is often thought of as something that divides, and, in terms of language, ethnicity, custom, religion, values, and morality (the scaffolding of any defined culture), this is an accurate assessment. But another tenet holds that a perception of common enemies tends to bridge those divides rather than make them appear threatening. Confucian and Muslim states, for example, have cultural differences, but some of them have deeper differences with the West. Samuel Huntington has identified what he calls the "Confucian-Islamic Connection," a perceived community of interest generated when well armed Western states, who are advocates of non-proliferation, attempt to limit the military power of Asian and Muslim states.[18]

Crumbling Cold War alliances are accelerating the drift away from long-accustomed relations. Several examples illustrate how an increasingly erratic state system has disturbed formerly stable relationships. With the loss of its patrons, Cuba faces dire economic prospects; Fidel Castro has sought to exploit anxieties of other nations that the United States is a power to be feared. Brazil, for example—traditionally a strong U.S. ally—has begun a reassessment in the wake of concern about the direction of U.S. policies concerning nuclear weapons proliferation, environmental issues pertaining to the Amazon basin, and Brazil's weapons dealings with renegades like Saddam Hussein. A more positive Brazilian

assessment of Cuba would be a profound turnabout in that nation's foreign policy, for it was only a few years ago that a plan to smuggle Cuban weapons into the hands of would-be domestic revolutionaries was thwarted by Brazilian authorities.[19]

But perhaps the most troubling example comes from Southeast Asia, where traditional bilateral and Association of Southeast Asian Nations (ASEAN) multilateral ties are imperiled. Two dynamics are at work: fear of growing Chinese power, and the apparent U.S. retreat from the region (symbolized by the withdrawal from bases in the Philippines). Some evidence for this can be seen in South Korea's adhering to China's position that dialogue instead of economic sanctions is the best way to harness North Korea's nuclear ambitions.[20] The image of the U.S. withdrawing without replacing the Philippine installations while also reducing its military power generally has spurred rapid weapons-buying in the area and a new emphasis on interregional multilateralism—neither of which, however, has the potential for significantly opposing Chinese ambitions.[21]

Any local power vacuum seems destined to draw in China, to the detriment of the United States and its Asian allies. Almost certainly this Chinese influence will transform the region more than will U.S. trade ties. While it is true that the Asian "tigers" have experienced phenomenal growth through exports to the U.S., it should also be kept in mind that China is becoming a "tiger" in its own right and shows little sign of moving toward a more pro-American position except in the area of trade. Economic growth and military modernization appear to be progressing, but toward opposite goals. It should be remembered that in 1974 the PRC invaded the Paracel Islands, garrisoned by South Vietnamese troops allied with the United States, notwithstanding its wish to expand ties to Washington. If further military modernization is imperiled by economic shortcomings in the future, it should come as little surprise if a similar thrust toward the Spratlys occurs or if solidified ties to Myanmar (Burma) provide China a base for acting against Indonesia in an effort to claim oil deposits off the northwestern coast of Sumatra, astride the Malaccan Strait.

Implications of Informal Alliances

These emerging structures differ from Cold War alliance structures in several important ways. Until the collapse of the Warsaw Pact, the coalition opposed to the United States was for the most part both public and legal, in the sense of a signed agreement with obligations for all members. While the reality differed from the facade, the formal structure did help focus the United States and its allies on a common enemy. It took the West some time to realize that the reasons the formal counterpoise, NATO, existed—to protect Europe and to oppose

Warsaw Pact nuclear strategy—had little bearing on the actual Soviet offensive in the Third World. Nevertheless, the image of the Warsaw Pact as a formal alliance made it relatively easy for the legalistic, rationalist, positivist West to perceive and label it a threat.

The post–Cold War alliance structure is more likely to include "gray area" alliances of states and non-state actors. The most important aspect of these associations is their secretive nature, in contrast to the overt Warsaw Pact. Theoretically at least, being secretive allows an advantage: it may be that this non-legal form enhances the possibility of surprise by lulling its adversaries into believing that if no threat is proclaimed, none exists.

Another observation is in order: foreign-source support for insurgencies did not end with the Soviet Union's collapse. A strong argument for the reappearance of national-interest motives amid the collapse of political structure is Russia's support for Serb expansionism in the Balkans and Russian troops in the former Soviet possessions known today as the "near abroad." The products of an old czarist policy, these areas appear unaffected by talk of a new world order and look more like prey for nineteenth-century-style imperialism. The same can be said for other regional expansionists like Iran, which still supports insurgents throughout the Middle East and North Africa. The fact that such aggressors rely on non-state actors is hardly new. In whatever guise, the agents of "gray area" expansion have long been instruments of aggressive states.

The first principle of "gray area" expansion, at the heart of this low-level style of aggression, is a psychological battle to disrupt Western democracies. The "Eastern" way of warfare described by Sun Tzu's *Art of War* and other ancient military classics employs two principles that are difficult for Americans to understand, precisely because they are aimed at dividing the population from its leadership. The "Eastern way" strikes at the two non-military parts of Clausewitz's strategic triad, the people and the government. The first Eastern way's principle exploits *time*. For the United States, and democracies generally, geared to elections every few years (and with policy no doubt affected by off-year elections as well), it is difficult for the people to comprehend a style of warfare that thinks in terms of generations, perhaps even longer. In the hands of enemies, then, stealthy aggression becomes a weapon.

The passage of time is also critical to the second principle, psychological warfare. As these conflicts grow around the globe, and as the West becomes exhausted in conflicts that remain unresolved after a short period of time, popular impatience with the political leadership sets in or is generated by rivals seeking to build electoral pressures. In the Eastern approach, the center of gravity for disrupting democracies lies in exploiting their political electoral cycles, the key linkage between population and politician.

Militarily, the difficulty lies in identifying the precise nature of the threat. For Sun Tzu, attacking the army of the adversary was only the third-best approach, after attacking first his strategy and then disrupting his alliances—for "those skilled in war subdue the enemy's army without battle."[22] On the other hand, military power is a substantial component of the intimidation factor vital to destroying the psychological will of the enemy.

In naval terms, the idea of combating an opponent by defeating his strategy instead of directly taking on his military forces derives as much from Western naval strategists as it does from Sun Tzu. For Sir Julian Corbett and Raoul Castex, sea control, commerce raiding, and controlling the enemy's strategy were more important than defeating the enemy's battle fleet. Thus, interdiction denying access through the Strait of Hormuz already appears to be the chosen Iranian naval strategy, chiefly by means of land-based missiles and submarines.[23] The *guerre de course* has long been utilized by inferior naval powers to disrupt the strategy of the stronger power. The vulnerability to interdiction of massive amounts of shipping among Western trading partners and their allies in East Asia makes a *guerre de course* strategy attractive today as well.

In peacetime the threat is less blatant but still harmful. Ensuring the security of sea lines of communication requires not just the psychological comfort provided by naval presence but also diplomatic and economic measures designed to assure militarily weaker states that they have friends. Unfortunately, the trend is toward further U.S. naval isolation from some important areas for naval activity. If this trend holds, gradual gravitation of Southeast Asian states toward a Chinese-dominated sphere of influence is likely. In the Persian Gulf, an Iranian program of intimidation against littoral states, including the United Arab Emirates and Saudi Arabia, continues. Critical states, those with mineral deposits or that lie alongside important sea lanes, are being subverted by measures other than traditional war. Many of the littoral states being contested today are also crucial trading partners for the West, and regime changes, particularly in economically important Saudi Arabia or strategically placed Taiwan, could have a profound impact on Western security.

Submarines, even antiquated varieties, have become an attractive method of threatening commercial shipping, and possibly also of interdicting logistical shipping intended to support distant armies. Antisubmarine warfare is difficult today for even the most advanced naval powers. Even a handful of submarines in littoral areas adjacent to regional conflicts are enough to make intervention hazardous. As one observer notes, "No greater threat exists to successful [naval] operations in the littorals than that posed by a professionally operated diesel submarine."[24] While some states are more proficient with these vessels than others, and they may or may not pose a direct threat to the most modern navies, there is little doubt they can be a destabilizing factor. For example, China cannot

view with equanimity Indian purchases of Russian submarines.[25] Furthermore, as Clausewitz reminds us, war is a highly subjective affair. As long as they are willing to pay a substantial price, even mediocre powers that can score single victories against stronger yet psychologically weakened powers can in the end attain some semblance of victory—as the Tet offensive, the 1973 Yom Kippur War, and the 1983 Marine Corps disaster in Lebanon have shown.

The anatomy of alliance structures has changed in yet undetermined ways in the years after the Cold War. What is obvious, though, is that as Soviet-style communism receded as a menace, the cohesion underlying the old structures broke down. Defections from Cold War alliance structures and relationships with insurgents, criminal elements, weapons profiteers, and terrorists—all agents of "gray area" expansionism—are real, but they remain distressingly unnoticed by the West. Steps toward peace between old enemies, most notably in the Middle East, have masked the intensification of other tensions at a time when the United States appears disengaged. The result is that new opportunities for regional powers to project their influence have emerged.

Another obvious difference is the potential for violence these regional powers possess, facilitated in part by the breakdown of old alliances. The proliferation of weapons of mass destruction among even mid-level powers is a cause for great concern. At the same time, these nations' conventional military potential draws upon familiar and proven methods. On land, insurgency and low-intensity conflict tend to keep the level of violence down but with disproportionate chances for victory. At sea, particularly where littoral states can be recruited as bases, pressure on the maritime arteries threatens to constrict the West's lifeblood, trade, while in the event of war there is potential to deny critical passage to U.S. ships.

Hence, although the means for expanding such alliances may not be outright military aggression, there can be little doubt that power even of the old-fashioned variety plays a significant role in the post–Cold War environment. When states take measures to multiply their power, whether through formal alliances or something different, the result is a summons that must not be taken lightly.

Notes

1. Avigdor Haselkorn, *The Evolution of Soviet Security Strategy, 1965–1975*, Strategy Paper no. 31 (New York: Crane, Russak, National Strategy Information Center, 1978).

2. Graham H. Turbiville, Jr., and Harold S. Orenstein, "Drugs and Terror: Eastern European and Transnational Security Threats," *Military Review*, December 1991, pp. 57–68; and Graham H. Turbiville, Jr., "Narcotics Trafficking in Central Asia: A New Colombia," *Military Review*, December 1992, pp. 55–63.

3. *The Washington Post*, 26 May 1994, p. A1.

4. See, e.g., Patrick M. Cronin, ed., *From Globalism to Regionalism: New Perspectives on U.S. Foreign and Defense Policies* (Washington: National Defense Univ. Press, 1993).

5. Stephen Blank, "New Challenges to European Security," *Strategic Review*, Summer 1994, p. 44.

6. Brian Caven, *The Punic Wars* (London: Weidenfeld and Nicolson, 1980), p. 292.

7. Paul H.B. Godwin, "Chinese Military Strategy Revised: Local and Limited War," *Annals of the American Academy of Political and Social Science*, January 1992, pp. 191–201; A. James Gregor, *The China Connection: U.S. Policy and the People's Republic of China* (Stanford, Calif.: Hoover Institution Press, 1986), pp. 206–14; and Ross H. Munro, "Eavesdropping on the Chinese Military: Where It Expects War—Where It Doesn'r," *Orbis*, Summer 1994, pp. 355–72.

8. Godwin, pp. 191–201.

9. Chinese nuclear weapons are principally associated with an IRBM force. This could, however, be changing, according to a Reuters report on the International Institute for Strategic Studies. See "China May Be Developing New Nuclear Arms, Institute Says," *Washington Times*, 13 October 1994, p. A15.

10. U.S. Congress, Office of Technology Assessment, *Technologies Underlying Weapons of Mass Destruction*, OTA-BP-ISC-115 (Washington: U.S. Govt. Print. Off., December 1993), pp. 218–9.

11. Nicholas Eftimiades, *Chinese Intelligence Operations* (Annapolis, Md.: Naval Institute Press, 1994), p. 114.

12. Alvin H. Bernstein, "Iran's Low-Intensity War against the United States," *Orbis*, Spring 1986, pp. 149–67.

13. Sean K. Anderson, "Iran: Terrorism and Islamic Fundamentalism," in Edwin G. Corr and Stephen Sloan, eds., *Low-Intensity Conflict: Old Threats in a New World* (Boulder, Colo.: Westview, 1992), pp. 175–95; and Fouad Ajami, *The Arab Predicament* (United Kingdom: Cambridge Univ. Press, 1981), pp. 32–3.

14. Anderson, p. 190.

15. Quoted in Yossef Bodansky, *Terror: The Inside Story of the Terrorist Conspiracy in America* (New York: S.P.I./Shapolsky Publishers, 1994), p. 143.

16. Office of the U.S. Secretary of State, *Patterns of Global Terrorism* (Washington: April 1994), p. 22.

17. Michael Eisenstadr, "Deja Vu All Over Again? An Assessment of Iran's Military Buildup," pp. 101–9; and Ahmed Hashim, "Iran's Military Situation," in Patrick Clawson, ed., *Iran's Strategic Intentions and Capabilities*, McNair Paper no. 29 (Washington: National Defense Univ. Press, April 1994), pp. 200–10; James A. Phillips, "The Saddamization of Iran," *Policy Review*, Summer 1994, p. 10. See also the author's "*Caudillo* Nationalism and the Cuban Transition," *Strategic Review*, Summer 1994, esp. p. 55.

18. Samuel H. Huntington, "The Clash of Civilizations?" *Foreign Affairs*, Summer 1993, p. 45.

19. See Robertson, "*Caudillo* Nationalism," pp. 55–6.

20. *The Washington Post*, 5 May 1994, p. A38.

21. See *Harvard International Review*, special issue on "Rising Tensions in Southeast Asia," Spring 1994; and Larry M. Wortzel, "China Pursues Traditional Great-Power Status," *Orbis*, Spring 1994, pp. 157–76.

22. Sun Tzu, *The Art of War* (United Kingdom: Oxford Univ. Press, 1963), pp. 77–9.

23. Hashim, pp. 189–90.

24. P. Kevin Peppe (Lt. Cdr., USN), "Submarines in the Littorals," U.S. Naval Institute *Proceedings*, July 1993, pp. 46–8. See also Michael Poirier (Lt. Cdr., USN), "Sea Control and Regional Warfare," *ibid.*, pp. 63–5.

25. See Wortzel, esp. pp. 161–2.

———————   Ψ   ———————

When speculation has done its worst, two and two still make four.

Samuel Johnson, *Idler* 36

McNamara and the
Rise of Analysis in Defense Planning
A Retrospective

Peter T. Tarpgaard

I N THE 1960S FEW DEFENSE PLANNING TOPICS stimulated more debate
and deeply felt opinion than the introduction of "systems analysis" as an
official defense management tool by Secretary of Defense Robert McNamara.
Proponents viewed it as a way of establishing rationality in, and genuine
management control over, the vast U.S. defense establishment. Critics perceived
it as a mechanism to impose arrogant and uninformed academic opinion over
seasoned military judgment.

If we think of "analysis" as the gathering of relevant information and the
systematic examination of that information to help make an informed and
rational decision, then analysis in U.S. defense planning obviously has a history
going back much further than 1961 and Robert McNamara. Indeed, it would
be insulting to earlier generations of defense planners to assert that they did not
use analysis and rational processes to improve their decisions. Examples of quite
competent early studies can be found, and while more sophisticated methods
(and computers) are used today, the objective of supporting better decision
making remains the same.

What changed with McNamara had mostly to do with the institutionalization
of analysis in the U.S. Department of Defense (or DoD) and its active use to

Peter Tarpgaard is professor of national security studies at the Naval War College.
He is a graduate of the U.S. Naval Academy and has three graduate degrees, including
a Ph.D. from the Massachusetts Institute of Technology. While in the U.S. Navy, he
served at sea in destroyers and submarines and in various headquarters billets in
Washington. He participated in the SALT negotiations in Geneva and served as Design
Superintendent at the Portsmouth Naval Shipyard. He was also Principal Analyst,
National Security and International Affairs, at the Congressional Budget Office and
Manager, Submarine Programs, at the Charles Stark Draper Laboratory, Cambridge,
Massachusetts.

impose management control over the individual services. But it was the resulting imposition of effective, as opposed to ostensible, civilian control over the services that probably motivated much of the hostility against analysis and analysts. McNamara established a systems analysis group to advise him directly on decisions he was required to make, including resource allocations. This group, which came to be called the Office of the Assistant Secretary of Defense for Systems Analysis (and is today the Office of Program Analysis and Evaluation), soon became the lightning rod for resentment by the disappointed parties when the Secretary made hard choices.[1] There is a tendency on the part of such disgruntled advocates to denounce the instrument when their real grievance is with the institution; thus systems analysis (the instrument) was denounced along with, or even instead of, Systems Analysis (the institutional office).[2]

Today, over thirty years later, the McNamara management reforms remain firmly in place, and the use of analysis in support of defense decision making has become routine. Nevertheless, echoes of the critics' arguments continue to be heard, and the old resentments toward "systems analysis" are still felt. We should, therefore, take time to examine the origins of analysis in U.S. defense planning and decision making and to reflect upon the application of these methodologies after three decades of experience.

The Secretary of Defense and the Rise of Analysis

In the years immediately following the establishment of the Office of the Secretary of Defense, the incumbent was more the titular than the actual leader of the defense establishment. McNamara's predecessors, from James V. Forrestal in 1947 through Thomas S. Gates, acted as referees and arbiters in the continuous interservice struggles for missions and budget share. In those days, planning, programming, and budgeting were not parts of an integrated process but were disjoint with respect to each other and to the different services. Planning and programming were related to military operations as perceived by the services, while budgeting was conducted in a completely different format structured to satisfy the appropriate committees of Congress. The overall process, in the opinion of many observers, served more to mask than expose problems.[3]

In the early years the Secretary had neither the staff nor information resources to make informed, independent decisions. An egregious example occurred even as late as 1958, when Secretary Neil H. McElroy was directed by the Senate Armed Services Committee to choose between the Army's Nike-Hercules and the Air Force's Bomarc as a continental air defense missile. The following year McElroy admitted to the committee that his office was unable to decide and suggested that Congress make the choice. Characteristically, the Armed Services committees of the Senate and House, examining identical data, came to different

conclusions as to what should be done. In the end, an arbitrary cut was made in all continental defense programs.[4]

The statutory authority of the Secretary of Defense, whose office (known as OSD) was established by the National Security Act of 1947, has been defined by a series of laws passed over the succeeding years. By 1958 legislation had clearly given the Secretary the authority to "determine the force structure of the combatant commands, to supervise all research and engineering activities of the Department, and to transfer, reassign, abolish, and consolidate combatant functions."[5] As to how this authority could be exercised, Alain Enthoven, Robert McNamara's founding Assistant Secretary of Defense for Systems Analysis, describes two broad schools of thought. One, which Enthoven calls the traditional view, sees the Secretary's role as relating to gross budget allocations and resolving disputes among the services while leaving force planning, programming, and strategy to military leaders. The second school, to which McNamara clearly belonged, believed that foreign policy, defense strategy, defense budgets, and choices made regarding major weapons and forces are interconnected parts of national security; to execute his responsibilities properly, in this view, the Secretary must personally grasp the strategic issues and provide leadership in formulating a defense program that coherently relates these factors.[6]

As sometimes happens in life, the need, the means, the people, and the opportunity converged. In early 1961, as Robert McNamara assumed the duties of Secretary of Defense, the problems of effectively exercising that office had been perceived, and means for addressing them had been conceived.

The need was perhaps best articulated by Samuel Huntington in his 1957 book, *The Soldier and the State*: "The greatest single deficiency in the organization of the Department of Defense was the absence of the proper staff assistance for the Secretary. Legal authority was meaningless without the organizational means to exercise it. 'The creation of the staff facilities,' Forrestal said in 1949, 'is paramount even to the increase of power.' The Secretary was surrounded by antagonists. In front were the State Department and the NSC [i.e., National Security Council], presumably pointing out the path of national policy; behind him, the Treasury and the Budget Bureau, always acting as a drag; on either side, the Joint Chiefs and the Comptroller, pushing him off the road in one direction or another. The Secretary, however, was institutionally naked and defenseless. It was not surprising that his functions were encroached upon by other agencies or that he himself found it necessary to identify his interests and role with that of some other agency. He had no support with which to maintain an independent stand. . . . The Secretary had assistance to help him in accomplishing everything except the discharge of the one responsibility which was his and his alone: the formulation and enforcement of over-all defense policy. What was needed was the institutionalization of the secretarial viewpoint: a small,

competent, corporate body to aid the Secretary in developing the interests and advice surrounding him into a comprehensive military program. This absence of staff agencies with a secretarial perspective made the Secretary unable to play an independent role and to formulate his own viewpoint. Instead of rising above the subordinate interests within his department, the Secretary was forced to lower himself and identify his interest with that of one of his subordinate agencies."[7]

Means for addressing the problems inherent to the Secretary's respon-sibilities—that is, rational methodologies for defense planning and budgeting—had been emerging over the previous decade, at the RAND Corporation and elsewhere. The results of much of this research were summarized by Charles J. Hitch and Roland N. McKean in the seminal book *The Economics of Defense in the Nuclear Age*, first published in 1960 as a new administration was being elected—a propitious moment. Hitch was made DoD Comptroller by Mc-Namara and given the opportunity to put his ideas into practice. Enthoven, who had been a contributor, was named Deputy Comptroller for Systems Analysis under Hitch to begin the task of developing "the small, competent, corporate body to aid the Secretary" Huntington had called for.

Even more important to the rise of systems analysis than such skilled practitioners as Hitch, McKean, and Enthoven, however, was McNamara himself, in whom systems analysis found not only a customer but a committed proponent. McNamara's familiarity with the fundamental ideas underlying systems analysis dated back to his days as a student and, later, as an instructor at the Harvard Business School. During World War II McNamara was one of a small group of junior Harvard faculty members who used their financial skills to develop and implement "statistical control" methods to help the U.S. Army Air Force manage its vast operations. Deborah Shapley, a McNamara biographer, perceives this wartime experience as an important formative experience. "The Stat Control men were like inspector generals. Before them higher-ranking officers trembled. . . . The power of information, the importance of data, the need for control and analysis, were lessons many, including McNamara, took back to their civilian lives. In this new guise *control*, often under the name *management control*, influenced a generation of American managers in the years after the war."[8]

After the war McNamara did indeed apply these methods, and the power of information generally, in his highly successful business career at Ford Motor Company. He and a small group of "Stat Control" colleagues joined Ford immediately after the war. Known there as the "Whiz Kids" (a term later applied to the analysts recruited for McNamara's OSD systems analysis office), they developed new financial and management control procedures to replace the primitive methods previously used. Ford prospered, and McNamara rose rapidly

in that great industrial organization, becoming its president thirty-four days before being named Secretary of Defense by John F. Kennedy.

The new administration moved quickly to implement in DoD the management concepts and tools that been proposed in *The Economics of Defense* and related papers and studies. Within nine months, the first Five-Year Defense Plan, or FYDP, had been produced; a new budgeting format was installed that displayed forces and related funding by program and mission-oriented packages rather than, as previously, line items; and the Planning, Programming, and Budgeting system, or PPBS, was established as an orderly process for relating budgets to objectives. K. Wayne Smith, a participant in the implementation of PPBS and an observer of its results, describes its impact: "It would be difficult to overestimate the impact PPBS had on defense decision-making, at least in the 1960s. It was more than a management tool; it was, at one and the same time, a central plan, a historical record, and a way of shaping issues for decisions. PPBS's intellectual foundation rested on a series of important and fundamentally new procedural ideas—new, at least, for the Department of Defense. These ideas included making decisions based on explicit criteria of the national interest, considering needs and costs simultaneously, explicitly considering alternatives, actively using an independent analytical staff to assist the Secretary, making analysis open and explicit, and using multiyear time horizons. These ideas may seem commonplace now, but in the early 1960s they were not."[9]

The Systems Analysis Office grew rapidly in the 1960s, both in size and influence. In terms of personnel it peaked at 201 actually "on board" in January 1967 (falling back to just over a hundred today). Concerning the personnel assigned to the office, Smith has this to say: "Two popular myths about the Systems Analysis Office are worth puncturing in passing. First, contrary to the popular myth about hordes of amateur civilian analysts surrounding the professional military staffs, the Systems Analysis Office was, has been, and still is, *tiny* by Pentagon staff standards—tiny in comparison to the service staffs, tiny in comparison to the Joint Staff, and tiny now even in comparison to the congressional staffs. Second, the office has never been as civilian-dominated as its critics have contended. Throughout the twenty-six-year history of the office, military officers have constituted roughly one-third of the office's authorized personnel. . . . In short, the office's power and influence has never rested on the number of analysts it has had but in the role those analysts have played. . . ."[10]

Analysis under Attack: The Wrath of the Generals

The OSD Systems Analysis Office quickly became the focus of passionate criticism, and it has remained so to the present day. Every critic of some aspect of U.S. defense policy and every disappointed proponent of some program or

proposal seems to vent his frustration on the Office. A few examples capture the tone of these feelings.[11]

General Thomas White, a former Chief of Staff of the Air Force, wrote in 1963 that "in common with many other military men, active and retired, I am profoundly apprehensive of the pipe-smoking, 'tree-full-of-owls' type of so-called professional 'defense intellectuals' who have been brought into this nation's capital. I don't believe a lot of these over-confident, sometimes arrogant young professors, mathematicians, and other theorists have sufficient worldliness to stand up to the kind of enemy we face." General Curtis LeMay, another former Air Force Chief of Staff, evinced a similar disdain; writing in 1968, he asserted that "the military profession has been invaded by pundits who set themselves up as popular oracles on military strategy. . . . The end result is that the military is often saddled with unprofessional strategies. . . . Today's armchair strategists, glibly writing about military matters to a public avid for military news, can do incalculable harm. 'Experts' in a field where they have no experience, they propose strategies based upon hopes and fears rather than upon facts and seasoned judgments."

In testimony before a congressional committee in 1968, Admiral Hyman Rickover delivered these acid remarks: "The social scientists who have been making the so-called cost effectiveness studies have little or no scientific training or technical expertise; they know little about naval operations. . . . Their studies are, in general, abstractions. . . . In my opinion, we are unwise to put the fate of the United States into their inexperienced hands. If we keep on this way, we may find ourselves in the midst of one of their cost effectiveness studies when, all of a sudden, we learn that our opponents have ships that are faster or better than ours."

Even some committees of Congress joined in the condemnation. In the authorizing report for fiscal year 1969, the House Armed Services Committee described its view "that too much emphasis has been placed upon the recommendations of persons who lack actual military experience and a frame of reference which can best be gained by long immersion in military matters over a period of years. Not enough emphasis, it is felt, is placed upon the recommendations of those who have attained their knowledge through years of doing and being exposed to the actual threat of extinction by a determined enemy. There are, unfortunately, some policy making civilians in the Department of Defense who seem to know the cost of everything, but the value of nothing."

What motivated such bitter attacks? Were they justified? These may seem like simple questions, but full answers would be complex and as controversial as the issues that motivated them. It seems clear, however, that much of the bitterness arose from the perception that hard-won experience and professional judgment were being brushed aside in favor of arcane analytic techniques that

many senior people did not understand or accept. Analysis also was a convenient object for the wrath of those displeased by decisions made by McNamara and his successors.

The practitioners of the new decision support methods constantly responded that these bitter criticisms were not justified and missed the point of analysis. Far from being ignored, military experience and judgment were often important ingredients in analysis and were, along with analysis, important factors in policy decisions. In a speech given at the Naval War College on 6 June 1963, Alain Enthoven argued that "it is wrong to cover the whole area of defense planning with the mantle of 'military judgment' or 'operational experience.' Military judgment, if by that is meant specifically the experience and knowledge gained by military men in combat or conducting military operations, is something very precious indeed. Unlike most of the things we know and have which are earned at the price of hard work, the military profession has had to pay in blood for its combat experience. This valuable currency is cheapened by attempting to apply it to things to which it does not apply. Military judgment should not be the basis for a view with respect to technical feasibility. Nor is it fair to suggest, when the Secretary of Defense makes a decision contrary to that of his military advisors on the procurement of a weapon system, that military advice and experience are being ignored or that military judgment is being downgraded. Rather, the problem is that the Secretary of Defense has to balance many other factors in his decisions. I am sure we all agree to that in theory. The problem is that it is sometimes forgotten when practical examples come up."[12]

Cases in Point

There is in fact a wealth of "practical examples," and it is instructive to turn to some of these to ascertain, theoretical advocacy and criticism aside, what has been DoD's actual experience with systems analysis. A number of "case histories" are to be found in McNamara's tenure as Secretary of Defense alone. Two of them—precision air-to-ground munitions and the Nato–Warsaw Pact ground correlation—seemed to fulfill the promise held out by the discipline's advocates. Others, however, serve as classic illustrations of the consequences of failing to use analysis properly and of failing to build an effective synthesis between analysis, technical judgment, and military experience. These include the controversial TFX program (which eventually produced the F-111 and FB-111 aircraft) and McNamara's choice between nuclear and conventional power for the aircraft carrier USS *John F. Kennedy* (CV 67). A final example, the Osprey aircraft, is drawn from recent experience; it illustrates the important role that analysis can play in defense decision making today.

Precision Guided Munitions: Analysis Plus Military Insight. "Two years ago," recalled Alain Enthoven in the 1963 speech already mentioned, "some people in my office became interested in the problem of choice of air-to-ground non-nuclear ordnance for fighter-bomber aircraft. They observed that there had been great advances in the performance of the aircraft, as well as great increases in their cost, but they found that one of the services was procuring essentially the same ordnance as had been procured ten years earlier. They did a few calculations suggesting that it would pay to go to more accurate weapons having greater lethality, even though it cost more, and they went to the Service to ask about it. The first reaction they seemed to get was, 'We fought World War II with iron bombs and we know best. Leave us alone.' My men persisted. Among other things, it turned out that these particular Service people were calculating only a portion of the relevant cost. They were calculating ordnance cost per target killed instead of complete system cost. The point here is that the cost to kill a target or to suppress movement in an area by weapons delivered from aircraft is dominated by the cost of buying and operating the aircraft, training and maintaining the pilot, and the cost of the actual ordnance delivered tends to be small in comparison. Complete system cost is the appropriate measure of cost in such cases. It measures what it really costs to do the job. The fact that this was the case encouraged us to press our views all the harder. As we did so, the resistance increased, apparently based on a belief that we lacked operational experience and therefore that the question of choice of ordnance was none of our business."

Enthoven here paused to reiterate some more general points about the role of analysis and of his office in defense decision making. "But there are important aspects of this and similar problems requiring backgrounds other than military operational experience. Much of our job in the Office of the Secretary of Defense is to help the Secretary to reach balanced decisions by helping him to bring to bear a broad range of other equally relevant considerations including economic, scientific, technical, and diplomatic aspects. Most of the civilians in the Office of the Secretary of Defense have considerable professional training and experience in one or more of these areas. But these other factors interact with the military aspects in a very intimate way, so that in general they cannot be separated out. For example, the whole point of so-called 'cost-effectiveness' analysis is that it does not make sense to consider cost and effectiveness separately. They are opposite sides of the same coin. The conclusion I draw from this is that we must all work together and be willing to make the effort to communicate with and learn from each other. Of course, a part of our job is to see to it that Defense Department programs are chosen and carried out as economically as possible. To do this, there is no alternative to questioning the programs of the Services."[13]

Resuming the air-to-ground munitions example, Enthoven related how an effective collaboration between the analysts and the military experts eventually developed. The analysts learned practical insights from the military experts and they, in turn, gained conceptual insights from the analysts. As a result of this collaboration a realistic perception of the potential of precision guided air-to-ground munitions began to appear.

It is particularly interesting to reflect upon this speech and this very early effort of Systems Analysis in the light of nearly three decades of development of precision guided air-to-ground munitions, their prominent place in the inventory of modern weapons, and the critical role they played in the recent Gulf war. When he delivered his speech in 1963, Enthoven had no way of knowing how important precision guided air-to-ground munitions would become, yet he chose that issue to illustrate the power of the synergistic fusion of analysis and military experience. It is an illustration well worth reflecting upon.

Ground Forces in Europe: Analysis and Strategy. Soon after coming into office in 1961, the Kennedy administration began to seek a defense strategy that would reduce reliance on nuclear weapons and focus more on conventional forces for deterrence and war, particularly in Europe in association with Nato. Such a change proved to be highly controversial, and the new strategy was not officially adopted until May 1967.

The principal reason for the controversy was a perception, dating from the earliest days of Nato and persisting throughout the 1950s, of an overwhelming superiority of Soviet conventional forces over those available to the alliance. In 1961 the conventional wisdom, frequently reiterated among military planners, centered on a force imbalance measured in whole army divisions: that the Soviets had 175 well equipped, well trained divisions while Nato could muster only twenty-five, whose equipment and training problems were only too plain to Western military planners. The result of this perception of drastic conventional asymmetry was despair, a conviction that Nato could not resist an attack by Warsaw Pact forces without almost immediate resort to nuclear weapons. Such a strategy was not only highly unsatisfactory but dangerous, in the opinion of many, because it allowed for few alternatives between the horror of nuclear war and acquiescence to aggression. It was widely considered unavoidable, however, because of the enormous cost of matching the 175 Soviet divisions.

Some, however, began to question the validity of this whole view. In 1959, General Maxwell Taylor examined in his book *The Uncertain Trumpet* whether certain demographic and economic factors were consistent with the "fact" of the 175 Soviet divisions. He noted that the population of the United States and the Soviet Union were roughly comparable, that the total population of the Nato nations exceeded that of the Warsaw Pact allies, and that the economic

strength of the alliance greatly exceeded that of the Pact. It seemed strange, therefore, that with these kinds of fundamental disadvantages such a superior force could be maintained by the latter.

Beginning in 1961, OSD Systems Analysis began to probe the evidence underlying the order-of-battle assessment. As it gathered and critically examined data, the office found that the evidence was often very "soft" and that the conclusions drawn were usually biased (with the best of intentions) toward the "worst case." Ultimately, it was determined, first, that many of the "well trained, well equipped" divisions were, in fact, only cadre organizations, thinly manned and poorly outfitted; and second, that a division in the U.S. Army was equivalent in combat capability to at least three Soviet ones. A "division," therefore, was inappropriate as even a rough measure for comparison of Nato and Warsaw Pact effectiveness. This careful assessment revealed that there was in fact a rough parity between the two sides and that the previously perceived Western vulnerability, and the resulting need for rapid escalation, had probably been mistaken.

This clearer view of the realities of the balance of forces in Europe was of great importance in developing a strategy for Nato; it made possible the more flexible and less dangerous strategy that was adopted in 1967. The OSD analysts, in concert with analysts in the services and in the intelligence communities, had paved the way for fundamental changes in U.S. and Nato defense postures.[14]

TFX: Rationality Gone Astray? McNamara learned in briefings conducted soon after he took office that both the Air Force and the Navy had plans to develop new tactical aircraft. At Ford Motor Company, commonality had been the key to manufacturing efficiency and profits; McNamara immediately asked why a single aircraft design could not be used by both services. This simple question was to become the basis of one of McNamara's most difficult interactions with the services and with Congress.[15]

The traditional technical answer is that an airplane, particularly a combat aircraft, requires many design compromises and that trying to satisfy too many mission requirements means making too many compromises, producing an aircraft that does nothing very well. This point was to be made many times and in various degrees of specificity, but McNamara did not heed it, nor was any other argument able to dissuade him from the idea of a common tactical aircraft for the Air Force and Navy. Throughout the long and difficult program, McNamara, an avid consumer of facts and the reputed epitome of dispassionate rationality, repeatedly ignored the findings and recommendations of technically competent advisors and made decisions on the basis of his own instincts and preconceived notions.

In early 1961 the Air Force was considering a conceptual fighter that evolved from NASA Langley Laboratory briefings regarding the potential advantages of

variable-sweep wings. With that feature a single aircraft could achieve supersonic speed (with the wings in the high-sweep position) but also operate efficiently at subsonic speeds (in the low-sweep configuration), making high performance compatible with long ranges and slow, short takeoffs and landings. These possibilities led the Air Force to issue Specific Operational Requirement 183, which described the desired capabilities of an F-105 replacement that would be able to penetrate enemy defenses by flying supersonically at low altitudes but would also have an intercontinental ferry range without stops or inflight refueling.[16]

The Navy, for its part, needed a new fleet air defense airplane to replace the F-4 Phantom. A subsonic aircraft called the Missileer had been in development along with a new long-range missile, the Eagle. Missileer and Eagle were meant to be the new means of fleet air defense, but in late 1960, just before the Kennedy administration took office, Missileer was cancelled, because a subsonic aircraft seemed a step backward in the state of the art.[17] (Development of the Eagle continued, however, producing eventually the Phoenix missile now used on the F-14 fighter.) As McNamara assumed office, the Navy was seeking a higher-performance aircraft than Missileer for the air defense mission.

On 14 February 1961, after only three weeks as Secretary of Defense, McNamara ordered, through his Director of Defense Research and Engineering, both services to study development of a single experimental tactical fighter, or "TFX," based upon the Air Force project.[18] Both services initially agreed that a single TFX could be built—but in each case only if the other service gave up some of its mission requirements. This did not happen, however, and on 22 August 1961 the Air Force and Navy informed McNamara that it was not technically feasible to build a single aircraft that would meet the requirements both of an Air Force fighter-bomber and a Navy air defense fighter. On 1 September McNamara overruled this finding and issued a memorandum directing that a "single aircraft for both the Air Force tactical mission and the Navy fleet air defense mission will be undertaken. The Air Force shall proceed with the development of such an aircraft." The memorandum further required that changes to the Air Force version to achieve the Navy mission "shall be held to a minimum." On 1 October a document specifying the joint Air Force and Navy requirements and requesting design proposals was distributed to the aircraft industry.[19]

Six airframe contractors responded to the initial solicitation. Their proposals were evaluated by a joint technical team numbering at various points between one and two hundred people, principally from the Air Force but including Navy representatives. Their findings and recommendations were submitted through the military chains of command to the service secretaries, and then to the Secretary of Defense for a final decision. All six proposals were judged to be

inadequate, but the Boeing concept was given the highest score and that from General Dynamics the second highest; the Navy believed that the Boeing proposal could be satisfactory with changes but considered the General Dynamics design unacceptable.[20] Secretary of the Air Force Eugene Zuckert and Secretary of the Navy Fred Korth recommended that both firms be given ninety-day study contracts to develop further their designs, and that was done.

Boeing and General Dynamics refined their proposals through three additional rounds of evaluation, lasting through most of 1962. In each round the Boeing design was unanimously recommended by the services' Source Selection Board, and Boeing was the choice of the military leadership of both the Air Force and the Navy. Its version was evaluated as superior technically and with respect to performance; in addition, Boeing had submitted the lower price estimate.

When, therefore, on 24 November 1962, the Office of the Secretary of Defense announced that the TFX contract would be awarded to General Dynamics, the services, the defense industry, Congress, and all who had followed these events were thunderstruck. McNamara had made this decision with the concurrence of the secretaries of the Air Force and Navy, counter to the recommendations of all levels below them, on the basis of largely subjective judgments about the relative reliability of the cost and performance estimates in the rival proposals. The sole written justification was a five-page memorandum for the record signed by Korth and Zuckert and approved by McNamara;[21] this document was viewed by many, including congressional investigators in the hearings that followed, as inadequate for such an important decision. On 21 December 1962, Senator John McClellan, Chairman of the Senate Committee on Government Operations and the Permanent Subcommittee on Investigations, contacted McNamara to request that award of the TFX contract be delayed until the subcommittee could complete its investigation. Notwithstanding, a letter contract to General Dynamics, setting the decision in concrete, was signed and sent that very afternoon.

This snub to Congress and the controversial nature of the decision inevitably led to long and difficult hearings before McClellan's subcommittee. These hearings must have been an unwelcome burden for McNamara, and they constitute part of the cost of his actions on the TFX issue. The first set extended from February 1963 through November; subsequent sessions were conducted in 1970, after the program had experienced much difficulty, cost growth, and erosion of performance capabilities. The final report of the Senate Permanent Subcommittee on Investigations, following its 1970 hearings, offered a somber assessment of the program. "The TFX program has been a failure. The Federal Government will spend more than $7.8 billion to procure about 500 aircraft, although the original production schedule called for more than 1,700 aircraft to

be purchased for less money. Of the 500 planes we will have, less than 100 (the F-111Fs) come reasonably close to meeting the original standards." The Senate report went on to place the blame squarely on the shoulders of McNamara and his team. The "primary cause of the TFX fiasco was mismanagement. A series of management blunders, made for various reasons, compounded errors with more errors and caused the failure of the program. The management blunders were made at the highest echelons of the Government. Top Presidential appointees in the Department of Defense during the McNamara era overrode expert advice to impose personal judgments on complex matters beyond their expertise."[22]

Thus Robert McNamara, the fabled manager from industry, the imposer of rationality and discipline on U.S. defense management, stood accused of gross mismanagement resulting in the waste of billions of taxpayer dollars. Was this charge justified? At least in part, the charge is true. Though many would argue that the F-111, in its various versions, provided useful capabilities to the Air Force, it seems clear that none of the shared advantages that McNamara had intended were realized. Ultimately, the naval version of the TFX, the F-111B, was cancelled, and the Navy went on to develop its own air defense fighter, the F-14 Tomcat. McNamara's objective had been efficiency through commonality in satisfying the Air Force and Navy needs, but the result was quite the opposite.

However, it may not be true, as charged elsewhere, that billions of dollars were wasted that would almost surely not have been spent but for McNamara's decisions. Had the Boeing proposal been selected, had McNamara stood aside and allowed the services to proceed as they pleased, the end result might very well have been at least as expensive and as unsatisfactory in other respects as the TFX program. We will never know. The TFX program is certainly not the only major defense program to experience significant cost growth, schedule slippage, and performance erosion.[23]

What is clear is that in his TFX decisions McNamara repeatedly departed from good management decision-making practice. He ignored facts in favor of intuition when facts would have served him better; he ignored informed judgment in favor of unfounded confidence in advancing technology; and he arrogantly antagonized the institutions (and their leaders) that would have to execute his program. It was perhaps the last mistake that most seriously and needlessly burdened the program. TFX is not an example of the failure of the good, objective decision-making methodology often associated with McNamara but rather of what can happen when one departs from sound practice.[24]

CVA 67: Right Question, Wrong Answer? Another McNamara decision that strained his relations with the uniformed leadership was the choice of conventional power for the aircraft carrier USS *John F. Kennedy* (today designated CV

67). Although many may still believe this decision was misguided and yet another example of McNamara's arrogant disregard of seasoned military judgment, the truly central issue, that of the tradeoff between quality and quantity, is an enduring dilemma that still challenges force planners today.

The administration's proposed budget for fiscal year 1963, submitted in early 1962 as the first prepared under McNamara's oversight, recommended construction of a new conventionally powered "attack" aircraft carrier, CVA 67. The first *nuclear*-powered carrier, USS *Enterprise* (CVAN 65), had been authorized in the fiscal 1958 shipbuilding program and completed in late 1961, just prior to the submission to Congress of the 1963 budget. In view of the lack of operational experience with nuclear-powered carriers and also of the significantly higher procurement cost involved, the Chief of Naval Operations and the Secretary of the Navy initially supported the decision that the new ship be conventionally powered. As time went on, however, the Navy's position would change, and influential members of Congress would become increasingly assertive proponents of nuclear power for the new carrier.[25]

A pivotal event in this regard was the Cuban missile crisis of late 1962. An important component of the U.S. naval force involved was Task Force 135, commanded by Vice Admiral John T. Hayward; it included two carriers, the *Enterprise* and the oil-fired USS *Independence* (CVA 62). Hayward's subsequent accounts of his experiences became a powerful and convincing argument for many in the Navy and Congress in favor of nuclear power. In a letter to Secretary of the Navy Korth of 2 January 1963, he reported that *"Enterprise* outperforms every carrier in the fleet. No other carrier has made over 10,000 landings in her first year of operation. Her planes are easier and cheaper to maintain and are combat ready more of the time because they are not subject to the corrosive attack of stack gases." Hayward stressed the importance, in light of the Cuban operations, of reduced dependence on fuel replenishment—nuclear-powered carriers require refueling only for their aircraft (small amounts of diesel fuel aside). Hayward's letter closed, "My experience tells me that nuclear propulsion offers the Navy tremendous military advantages that will be sorely needed in the years ahead. To maintain fleets at sea against the hostile forces that are sure to oppose us will require every technical advantage we can possibly muster. Frankly, Mr. Korth, I am deeply disturbed that we are not exploiting to the fullest the technological advantage we hold in nuclear propulsion that has been gained through such great effort."[26]

By September 1963, the Navy position regarding propulsion for the proposed CVA 67 had changed. On the 26th, Secretary Korth signed a memorandum to McNamara recommending nuclear power for the new carrier (making it CVAN 67) and offering to reprogram funds within the Navy to cover the additional costs.[27] One month later, however, on 25 October 1963, McNamara directed

the Navy to proceed with construction using conventional power. In a letter dated that same day to Senator John Pastore, Chairman of the Joint Committee on Atomic Energy, McNamara explained some of his reasoning. "This decision was motivated by a desire to avoid further delay, and does not prejudge the larger question of the application of nuclear power to the Navy's surface vessels in the future. . . . It has become apparent that the assessment of the greater costs associated with nuclear power against the advantages to be derived from its use, is a much more complicated question than had been realized. Not only does it involve a determination of the cost of nuclear power for the other ships within the carrier task force, where the carrier itself is nuclear powered, but also an assessment in greater depth of the missions of a carrier task force in a variety of military situations, in order to determine whether the added costs of nuclearization are worth incurring."[28]

Professional testimony, such as that of Vice Admiral Hayward, based though it was on experience and judgment, was not of itself persuasive for McNamara. To him, the issue of whether the benefits of nuclear power for surface ships were worth the additional cost was one that should be susceptible to analysis, and he demanded that the Navy provide him with such analysis. McNamara succinctly expressed the crux of the matter as he perceived it in a letter to Congressman L. Mendel Rivers, Chairman of the House Armed Services Committee: "No one would argue that nuclear propulsion is not better on a ship-for-ship basis, but in view of the increased cost the question really is which is the better—have fewer nuclear ships, each one somewhat superior, or more conventional ships of lesser capability for the same investment. What concerns me is that regardless of the total amount we spend . . . we could have more than half again as many conventional as nuclear ships, with more than half again as many surface-to-air missiles, more than half again as many antisubmarine weapons, and have them in more than half again as many places in the world. The question is whether these advantages in numbers which accrue to the conventional ships do or do not offset the advantages of nuclear propulsion."[29]

The Navy repeatedly attempted to persuade McNamara that nuclear power was worth the cost. Numerous analytical approaches were tried, along with various arguments based on professional judgment, but none, apparently, was convincing to the Secretary of Defense. In the end, USS *John F. Kennedy* was built as a conventionally powered carrier, the last to enter U.S. Navy service.[30]

Once again, McNamara had gone against the weight of professional military advice in making an important decision. Here, however, he had approached the issue on substantive grounds, i.e., the tradeoff between capability and numbers: he demanded analytic proof that the additional value of nuclear power was worth

the additional cost. No such proof was, apparently, ever offered that satisfied him.

In this situation, McNamara may have demanded more than analysis can reasonably be expected to provide. Decisions on matters so complex must, ultimately, be made on the basis of judgment, though analysis can illuminate and inform that judgment. Without perfect knowledge of the future it would not be possible to "prove" that a decision on such a difficult matter was correct.

Osprey: Analysis at Center Stage. The V-22 Osprey is an aircraft being developed today by the U.S. Marine Corps to replace its aging H-46 helicopters for carrying troops and equipment ashore in amphibious landings. Rather than another helicopter, the Marines elected (starting in 1982) to develop a new type: a vertical and short takeoff and landing (VSTOL) aircraft with an innovative "tilt-wing" design. This approach offered significant advantages in speed and other qualities that persuaded not only the Marine Corps but the Army, Navy, and Air Force to undertake development, jointly. Each service had a somewhat different application in mind, but none of the potential missions was as central to the fundamental interests of a service as was amphibious assault to the Marine Corps; budgetary pressures eventually forced all except the Marines to drop out of the Osprey program. At the same time, the technical difficulties inevitable in a new type of aircraft caused costs to rise and the schedule to slip.

As a result, Osprey naturally became vulnerable to cancellation. No one doubted the need for a replacement for the H-46s, however. On the basis of capacity and cost, the successors of McNamara's "Whiz Kids," analysts in the office of Program Analysis and Evaluation (PA&E), suggested to Secretary of Defense Richard Cheney that the Marines' requirements could be realized for substantially less money if the Osprey program were abandoned and new helicopters were procured instead. That analysis and recommendation led Secretary Cheney to eliminate the Osprey from his fiscal year 1990 budget.

This decision was, to say the least, not greeted with enthusiasm by the Marine Corps; more importantly, it was vigorously opposed by certain members of Congress as well. As a result, the House Armed Services Committee directed (in July 1989) that the issue be studied further and a report submitted with the next year's (fiscal year 1991) budget request. Responsibility for the congressionally mandated study was assigned by OSD to the Institute for Defense Analysis, a federally funded analytic organization working primarily for the Office of the Secretary of Defense. IDA conducted a more detailed and sophisticated analysis than had PA&E and concluded that, among other factors, the speed and survivability advantages of the V-22 Osprey made it preferable to any new helicopter, even if procured only in the numbers that the lower outlay required by the proposed helicopter alternative would allow.[31] Buttressed by

this finding, Congress continued to appropriate, in fiscal 1991 and subsequently, funds for the V-22. OSD, under Cheney, continued to oppose it, and there were additional studies, but the V-22 was saved.

Many other factors also affected the fate of the V-22 program, not the least of them intensive lobbying of Congress by interested parties, but the crucial arguments, and the terms of the debate itself, arose from analyses. Without their insights, the OSD decision to cancel the V-22 would have been final, for better or for worse. The Osprey case can be viewed as an example not only of the important role analysis can play in defense decision making but also of the hazards of deciding a complex issue before thorough analysis has been performed.

Analysis in Current Defense Planning

Today, thirty years after the institutionalization of analysis under Robert McNamara, its use is an accepted, even expected, part of defense planning and policy making. Analysis is imbedded in the formal decision processes that also trace their roots to that period, and almost any significant choice made in the absence of analytic support is liable to be criticized on that basis alone. Despite the initial aversion of so many senior military leaders to analysis and analysts, the military services have now embraced the art, trained their own practitioners (far more than ever worked in the Office of the Secretary of Defense), and routinely use them to support their own decision processes.

It is fair to ask, however, whether all this systematic "rationality" has really resulted in better national security planning and decision making. Despite some notable successes, such as the case of precision guided weapons, there are indicators that would suggest *less* efficiency. One might note, for example, that almost all systems today seem to cost drastically more (inflation aside) than weapons did in the past, that they take much longer to develop, and that they are more expensive to maintain. Critics of analysis point out that such important innovations as jet aircraft, ballistic missiles, and nuclear propulsion date from the 1950s, before McNamara and before Systems Analysis. They also note that since analysis became institutionalized, decisions and the programs resulting from them always seem to take longer and longer. Perhaps most unkindly of all, critics of analysis observe that the heyday of the OSD Systems Analysis Office coincided with the only war the U.S. ever lost.[32]

There are, of course, persuasive responses to such criticisms. They include the fact that increasing technical complexity is a pervasive feature of modern life; it is not a phenomenon found only in weapon systems and cannot be reasonably characterized as a perverse effect of analysis. Jet aircraft, ballistic missiles, and nuclear propulsion were innovations brought into being through the technical

momentum of World War II, which stimulated the origins of modern analysis. Extension of program and decision time-lines is attributable, supporters would assert, to the interactive complexities of technology and modern politics, not to analysis. And surely blaming the loss of the Vietnam War on the Systems Analysis Office is so obviously simplistic as to border on hyperbole. Of the many factors that influenced the outcome of that war, systems analysis was at most a secondary one—on some decisions that affected some of those factors.

Now, as in the past, analysis and analysts are viewed differently by different observers. At one end of the spectrum of opinion are those who see the discipline as flawed and mostly counterproductive in defense decision making. Analysis, they argue, focuses too much on the readily quantifiable as opposed to factors that may be more important but are less easily quantified; the necessity to complete an analysis, and to review, brief, and modify it, etc., simply delays a decision and that usually without improving its quality. It is experience, judgment, and hard-won, real-world insight that should govern defense decision making, this argument holds, not arcane analytical techniques performed by specialists of shallow experience. At the other end of the spectrum are those who believe strongly in the power of analysis and logic to illuminate the factors affecting complex situations. The more complex the decision, in this view, the more important analysis becomes for making it. "Experience" and "judgment" are often clouded by prejudice, this school asserts; objectivity should be the key, and analysis promotes just that.

The truth, as so often, lies somewhere between these extremes. There is indeed a tendency for analysts to emphasize readily quantified factors at the expense of those less easily reduced to numbers. This is an inescapable feature of analysis that should be recognized and taken into consideration but probably can be offset only by the consistent application of good judgment. Judgment is a pervasive feature of the analytic process itself, and clearly it is much more effective when informed by insight acquired through experience in the field. Judgment inheres in the preliminary assessments that must be made about the objectives of an analysis, the alternatives to be considered and the measurements to be used in evaluating them, the analytic models to be employed, and a host of other matters. Making the decision itself requires weighing the results of analysis and integrating them with other material that may be relevant. All of these factors—analytical skill, judgment, and field experience—are important, therefore, not only to making a decision but also to the analytic effort supporting it. Because these qualities are not often to be found in the same person, sound analysis is usually a collaborative effort—as is, indeed, a well founded decision.

This, then, is the reality that those concerned about the use of analysis in defense decision making should bear in mind. Almost all important national security decisions are in fact collective products, in which different persons,

groups, and interests have interacted. Analysis is only one element, and it may, indeed often does, itself reflect more than one point of view. The role of analysis should be to collect, organize, and place in context information relevant to a decision; it is a service to the decision maker and the decision process, not a substitute for them. Only in very rare situations can analysis provide "the answer." As they have always been in the past, experience and judgment are the key ingredients in good decisions, but analysis can assist and inform them in most circumstances. The best decisions are likely to come from a proper balance of experience, judgment, and analytic insight; poor decisions, as may have been the case with the TFX, can result when one relies only on personal judgment, ignoring experienced advice and the results of analysis.

Analysis, experience, and judgment may also be viewed as tools with which we examine the products of the still higher intellectual activity of "conceptualization" or "vision." The question naturally arises as to how we decide upon our objectives. What in fact *are* our real objectives? What alternative means to their attainment should we consider? Analysis, by itself, cannot answer these questions. It can neither form values nor create ideas—these are synthesized from experience and judgment, or, occasionally, from the even more remarkable human quality called inspiration. Analysis allows us to relate and compare values; it also helps us to evaluate and refine our ideas and may stimulate the generation of others. It is, however, only the servant of valuation and creativity.

What conclusions can we draw? Has the effort devoted to analysis in defense decision making resulted in a commensurate contribution? I believe the answer is an unequivocal Yes. Although it has too frequently been prostituted for biased and parochial ends, and although it may have too often been done poorly and with misleading results, analysis has, on balance, had a clearly beneficial effect. It has repeatedly brought out important information; it has elevated debate; it has stimulated new approaches to problems; and it has helped pave the way to fundamentally new strategies. Today not only the Office of the Secretary of Defense but all the services and major national security organizations use analysis as a matter of course; indeed, the most definitive evidence of its success may be its ubiquity three decades later. Although arguments against analysis still echo in the halls of the Pentagon and elsewhere, most are aimed, in fact, at its *misuse*. It is quite proper to denounce such misuse, but it is another thing entirely to condemn all analysis accordingly. Those who would become effective participants in national security decision making must acquire a working acquaintance with the tools, potential, and limitations of analysis, because the art has won, for sound reasons, a permanent role in the formulation of national security policy.

Notes

1. The name was changed in April 1973 by Secretary of Defense Elliot Richardson.
2. Ralph Sanders, *The Politics of Defense Analysis* (New York: Dunellen, 1973), p. 4.
3. *Ibid.*, pp. 39–40.
4. *Ibid.*, p. 40.
5. Alain C. Enthoven, *How Much Is Enough? Shaping the Defense Program, 1961–1969* (New York: Harper & Row, 1971), p. 2.
6. *Ibid.*, p. 3.
7. Samuel P. Huntington, *The Soldier and the State* (New York: Vintage Books, 1957), pp. 449–50.
8. Deborah Shapley, *Promise and Power: The Life and Times of Robert McNamara* (Boston: Little, Brown, 1993), p. 37. (Emphasis original.)
9. K. Wayne Smith, "The Origins, Growth, and Accomplishments of the Systems Analysis Office," Thomas E. Anger, ed., *Analysis and National Security Policy* (Alexandria, Va.: Center for Naval Analyses, 1988), p. 28.
10. *Ibid.*, pp. 33–4. (Emphasis original.)
11. *Ibid.*, pp. 38–40. These grumpy quotations regarding systems analysis are among those collected by K. Wayne Smith.
12. Alain C. Enthoven, "Choosing Strategies and Selecting Weapon Systems," address presented at the U.S. Naval War College, Newport, R.I., 6 June 1963. Reprinted in U.S. Naval Institute *Proceedings*, January 1964, p. 158.
13. *Ibid.*, pp. 156–7.
14. For a more complete and authoritative discussion of the "175 divisions" episode, see Enthoven, *How Much Is Enough?*, chap. 4.
15. Shapley, p. 202.
16. U.S. Congress, Senate, Permanent Subcommittee on Investigations of the Senate Committee on Government Operations, *TFX Contract Investigation*, Hearings (Washington: U.S. Govt. Print. Off., 24 March 1970), p. 12 (John Brick testimony).
17. *Ibid.*
18. U.S. Congress, Senate, Permanent Subcommittee on Government Operations, *TFX Contract Investigation*, Report no. 91-1496 (Washington: U.S. Govt. Print. Off., 18 December 1970), p. 6.
19. *TFX Contract Investigation*, Hearings, p. 13.
20. *TFX Contract Investigation*, Report, p. 11.
21. *Ibid.*, pp. 14–5.
22. *Ibid.*, p. 92.
23. See, for example, the discussion of the developmental history of the Navy's F/A-18 aircraft in James P. Stevenson, *The Pentagon Paradox: The Development of the F-18 Hornet* (Annapolis, Md.: Naval Institute Press, 1993), chap. 11.
24. Enthoven, *How Much Is Enough?*, pp. 262–6, argues that much of the difficulty encountered by the TFX program stemmed from overly ambitious performance requirements developed by the services largely without the benefit of systems analysis. McNamara's key mistake, in Enthoven's view, was not that he overruled the services with regard to a single rather than separate aircraft or that he selected the wrong prime contractor, but that he did *not* overrule the services' performance requirements. This decision was made very early in McNamara's term, before the Systems Analysis Office was organized and able to advise him on such issues; Enthoven argues that the TFX troubles derived not from systems analysis but from the lack of it.
25. James M. Roherty, *Decisions of Robert S. McNamara: A Study of the Role of the Secretary of Defense* (Coral Gables, Fla.: Univ. of Miami Press, 1970), pp. 152–5.
26. U.S. Congress, Joint Committee on Atomic Energy, *Hearings, Nuclear Propulsion for Naval Surface Vessels* (Washington: U.S. Govt. Print. Off., 1964), p. 63. Vice Admiral Hayward was not an uncritical, single-minded advocate of nuclear power. Indeed, he later (2 March 1983) testified before the Seapower Subcommittee of the House Armed Services Committee in favor of resuming U.S. procurement of conventionally powered submarines.
27. *Ibid.*, pp. 104–7.
28. *Ibid.*, p. 118.
29. U.S. Congress, House of Representatives, Committee on Armed Services, *Hearings on Military Posture and H.R. 13456* (Washington: U.S. Govt. Print. Off., 1966), p. 8075.
30. Although all subsequent U.S. aircraft carriers have been nuclear powered, time seems to bear out McNamara's instincts with respect to other types of nuclear-powered surface combatants. The large, expensive,

nuclear-powered cruisers built in the 1960s and 1970s are now being decommissioned, some well before their initially planned dates, being succeeded by conventionally (in fact, gas turbine) propelled cruisers.

31. For a summary of the IDA study and a transcript of testimony regarding it, see U.S. Congress, Senate, Subcommittee of the Committee on Appropriations, *Institute for Defense Analysis Study of V-22 Osprey*, Hearing 101-934 (Washington: U.S. Govt. Print. Off., 1990).

32. See, for example, William A. Niskanan, "Commentary," Anger, ed., p. 55.

--- Ψ ---

This Issue's Cover

The USS *Enterprise* (CV 6) was involved in almost every major battle in the Pacific during World War II, from Pearl Harbor through the kamikaze hit on 14 May 1945 while serving as Vice Admiral Marc Mitscher's flagship off Okinawa; she was completing repairs at the Puget Sound Naval Shipyard when World War II ended. Built by Newport News Shipbuilding and commissioned on 12 May 1938, *Enterprise* earned a Presidential Unit Citation, a Navy Unit Citation, and twenty battle stars, missing only the Coral Sea battle and Third Fleet operations against the Japanese home islands at the end of the war; the two next-most-decorated ships, heavy cruiser *San Francisco* and destroyer *O'Bannon*, earned sixteen battle stars. *Enterprise* and her air wing shot down 911 enemy planes, sank 71 ships, and seriously damaged or destroyed another 192 ships. "Tokyo Rose" announced seven times that she had been sunk; Secretary of the Navy James V. Forrestal declared *Enterprise* "the one ship that most nearly symbolizes the history of the United States Navy in World War II." With this cover and a special section of reviews and notices of new books about that conflict, we honor the 373 men who died aboard the *Enterprise* or flying from her deck, the thousands of other Americans who never came home from World War II, and the millions who served in the victorious U.S. armed forces.

Thanks are owed to Dr. Steve Ewing, Senior Curator and Director of Exhibits for the Patriots Point Naval and Maritime Museum in Charleston, South Carolina, and to Captain R.L. Rasmussen, USN, Ret., and Mr. Jim Curry, the Director and the Visual Information Department Head respectively, of the National Museum of Naval Aviation in Pensacola, Florida, for their assistance and advice on our cover.

IN MY VIEW . . .

Military Doctrine, Theory, and Practice

Sir:

I found Dr. James J. Tritten's primer on military doctrine in the Spring 1995 edition of the *Naval War College Review* both interesting and stimulating. His assertion that doctrine addresses both how military institutions act and how they think was right on the mark. He also provided a very useful description of the multitudinous factors that influence doctrine and of the ways that doctrine, in turn, affects military forces.

It seems to me, however, that his analysis would have brought the function of doctrine into sharper focus had he characterized it as the conceptual link between military theory and military practice. Military doctrine is, in essence, a medium of transmission in which general ideas about the nature, purpose, and employment of military force are given practical expression peculiar to the time and setting of the military institution promulgating the doctrine of the moment.

If one conceptualizes doctrine as a connecting device between theory and practice, it is clear that there can be as many "levels" of doctrine as there are of military activity. Thus, in accordance with our current paradigm of strategy, operational art, and tactics, it is logical to expect that we would find strategic, operational, and tactical doctrine. The Naval Doctrine Command may, for good and sufficient reason, choose not to involve itself in tactical doctrine, as Dr. Tritten's article implies. This, however, is an institutional choice and does not preclude the existence of tactical doctrine per se. Like all "good" doctrine, tactical doctrine for any service must find the correct balance—being sufficiently

detailed to be useful while also granting enough latitude to those implementing it to avoid becoming dysfunctional.

I have no doubt that Dr. Tritten's useful survey will materially assist the United States Navy in the development of "good" doctrine at whatever levels it chooses to promulgate it.

<div style="text-align:right">

Harold R. Winton
Professor of Military History and Theory
School of Advanced Airpower Studies
Air University, Maxwell AFB, Ala.

</div>

The Conditional Surrender of Japan

Sir:

Permit me one small quibble with the fine essay written by Commander Edward L. Martin, USN, entitled "The Evolving Missions and Forces of the JMSDF" (*Naval War College Review*, Spring 1995).

On page 39 he comments under the subtitle "The History of the JMSDF" that "Japan's unconditional surrender at the end of the Pacific War occasioned calls for its disarmament." Having served in Tactical Operations at Headquarters, 5th Air Force and All United States Forces Japan at Higashi-Fuchu, Japan, from 1959 to 1962, I can attest to the demilitarization of Japan; but my small quibble (how petty can one get?) is with the term "unconditional surrender."

As we know from the historical record, Prime Minister Suzuki Kantaro initially rejected the Potsdam Declaration of July 26, 1945, calling for Japan's unconditional surrender and held a press conference stating that "the government will ignore it." Suzuki continued, "We will press forward resolutely to carry the war to a successful conclusion," which mirrored the opinions of the Imperial General Headquarters Command (IGHQ).

Only on August 15, 1945, did the Emperor issue a statement ending the war and preparing Japan for its first occupation by foreign nationals. Reading an Imperial Rescript, the God Figure of the Crane Throne imparted to his long-suffering people:

> To Our good and loyal subjects, after pondering deeply the general trends of the world and the actual conditions obtaining in Our Empire today, WE have decided to effect a settlement of the present situation by resorting to an extraordinary measure.

> WE have ordered Our Government to communicate to the Government of the United States, Great Britain, China and the Soviet Union that Our Empire accepts the provisions of their joint declaration.

(There were some interesting phrases elsewhere in this message: "The war situation has developed not necessarily to our advantage"; and, "The general trends of the world have all turned against her [Japan's] interests." But for most of the Japanese people that day it was not the words that the Emperor spoke that signaled the end of the war, but that in fact the Emperor had even spoken. Military leaders opposed the acceptance—the bomb had not changed their minds. Minister of War Anami Korechika and Chief of Staff Umezu Yoshijiro desired to continue the war but would not defy the Emperor's decision, even when a plot broke out in Tokyo and spread throughout the Honshu Plain to continue the conflict by killing the Emperor and his misguided advisors. The head of the First Imperial Guard Division, General Mori Takeshi, refused to support the insurgents and was murdered. The plot ended when the Eastern District Army commander, General Tanaka Seiichi, took steps to quell the rebellion. On August 15, General Anami committed suicide, as did General Sugiyama Gen, General Tanaka (who had just put down the rebellion), and General Honjo Shigeru, former commander of the Kwantung Army during the Manchurian Incident of 1931. More than five hundred military and naval personnel were to commit suicide following the Emperor's NHK broadcast.)

The Allies had acknowledged the rejection of the declaration and had used two of the three atomic bombs in the American arsenal on the 6th and 9th of August in the nineteenth year of the Showa Emperor. (Scholars still debate today whether Admiral Suzuki's reply was deliberately insulting—specifically, whether the verb *mokusatsu*, "to ignore," was meant in its possible sense of "to treat with contempt in silence.") The bombs spurred some Japanese fanatics to seek a continuation of the war, but even Tojo Hideki realized the war must be ended at once. With the Soviet Union entering the war through Manchuria, now that Stalin had abrogated the 1941 non-aggression pact signed by Yosoke Matsuoka, the Japanese Imperial Supreme Council met to discuss and evaluate the Potsdam terms. Foreign Minister Togo Shigenori and Mitsumasa Yonai favored accepting the terms with only one proviso—that the Imperial Household must be retained. Minister of War Anami, along with Army Chief of Staff Umezu and Naval Chief of Staff Toyoda Soemu, however, insisted on the following: Japanese homelands were not be occupied; Japanese forces abroad were to be withdrawn and disarmed by Japanese officials; and any war criminals were to be tried by the Japanese government.

With the military intransigent and rumors of plots to kill the Emperor as well as his advisors rife throughout Tokyo, Prime Minister Suzuki, newly converted to peace by advice from Marquis Kido, now pressed the Emperor to end the war. With the proviso that the Imperial Household be maintained but acknowledging that Japan would be subject to the Supreme Commander of Allied Powers, the Imperial Government sent the war-ending response to the Allies.

Although the Allies accepted the Japanese response with some reservations (which some Japanese including Matsumoto Shunichi, the vice-minister of foreign affairs, and Sakomizu Hisatsune, the chief cabinet secretary, thought included not protecting the Imperial Household), Suzuki, Marquis Kido, and Foreign Minister Togo were convinced the allied response was satisfactory. Thus unlike the Nazi surrender and the desire to eradicate all aspects of national socialism from the German soul, the United States and its allies actually accepted a *conditional surrender* of Japan in that they maintained the Emperor and the Imperial Household.

Although using in his 15 August broadcast the Royal "WE" to evoke the collectivity of the Japanese people, the Emperor seemed to be speaking as a father would to his children, for it seemed that what he was telling them was unbelievable . . . that Japan had lost the war and that the war was finally over, but *conditionally*.

Justin H. Libby
Professor of American-Pacific and Japanese History
Indiana University

"A Word of Caution"

Sir:

Admiral Ya'ari raises some valid points regarding littoral warfare ["The Littoral Arena: A Word of Caution," by Rear Admiral Yedidia Ya'ari, IN, *Naval War College Review*, Spring 1995], but his conclusions exaggerate the capabilities of submarines and cruise missiles while underestimating those of the surface forces. The threat to surface units can indeed be high in coastal waters, but this does not mean we should not or cannot operate there to our advantage. The Normandy coast was a hostile environment in 1944, yet the Allies operated there with surface ships quite effectively *after suitable preparation*. The same can be said for Leyte Gulf and a host of other successful amphibious operations. These operations provide the pattern for littoral warfare. The threat must be dealt with before we close the littoral in force, peeling away the enemy's defenses as we advance. We will not wander sheep-like within Exocet range at the commencement of hostilities, as Rear Admiral Ya'ari seems to imply we would. The aircraft carrier battle group (CVBG) will remain over the horizon.

One of the lessons of Royal Navy losses in the Falklands is the need for a sophisticated naval air arm to deal with regional littoral warfare operations. Had Britain possessed a suitable number of CVBGs, Argentine air power would not have operated for long. *Prolonged* suppression of modern defenses is required. The struggle for combat space superiority may be brief, as in Grenada. Or it may

resemble Guadalcanal, a fine example of prolonged operations in a littoral. Our carriers never entered Ironbottom Sound, but over time we established and maintained the superior balance of forces needed for success. A Tomahawk strike is a very convenient opening blow, but "immediately reprogrammable weapons delivery systems," i.e., Navy and Marine aircraft, surface forces, and Marines, will be needed to win the battle.

The most difficult time for operations is in the transition to war. It is here that Rear Admiral Ya'ari's points are most cogent. The men aboard *Stark* failed to realize they were in a war until the missile struck. They were deployed to a hostile environment beyond the capacity of their weapons, sensors and psychology. On a grander level, the disaster at Pearl Harbor on December 7, 1941, was a result of a strategy of forward presence. Franklin D. Roosevelt deployed the Pacific Fleet from its regular home port of San Diego to an advanced position in Hawaii to "send a message" to the Japanese. Forward deployment is not a panacea; some caution is required. We would be wise to recall this perspective regarding current deployments in the Adriatic and Macedonia.

The challenges of littoral warfare and forward presence have many precedents. We should not approach operations with the idea that everything is new, but apply the appropriate historical precedents as a guide. The United States Navy must maintain a suitable force structure to carry out the missions properly assigned to us. The CVBG, the amphibious ready group, and the Marine expeditionary force are valuable and necessary weapons for the expeditionary force commander.

<div style="text-align:right">

Rick Jacobs
Capt., U.S. Naval Reserve, Ret.
New Orleans, La.

</div>

―――――――― Ψ ――――――――

*

"A true learned journal can be an important source of information for those who have heavy demands on their time. From my experience, such a journal is no better than its reviews; and institutions are no better than their journals."

<div style="text-align:right">

Hyman G. Rickover

</div>

*

"Friction in the Gulf War"

Barry D. Watts

Gordon, Michael R. and Trainor, Bernard E. *The Generals' War: The Inside Story of the Conflict in the Gulf.* Boston: Little, Brown, 1995. 551pp. $27.95

What really happened in the 1991 Persian Gulf War? How was the campaign planned and how was it conducted? Did the "fog and friction" of war play a significant role? What do we know today that we did not know when Desert Storm ended, and has our overall understanding of the war changed in light of such knowledge?

This essay will attempt to shed light on these questions by examining a recent addition to the growing literature on the Gulf war: *The Generals' War*, by Michael Gordon and retired Marine Corps lieutenant general Bernard Trainor. In this reviewer's judgment, their book constitutes the first comprehensive analysis of the war's planning and conduct. However, before jumping into Gordon and Trainor's analysis, some preliminary observations concerning our evolving understanding of Desert Storm may help to place the book in a broader historical context.

Seemingly ubiquitous television coverage of the Gulf war created the impression that the conflict was transparent to those watching it. Having "seen" the war on the Cable News Network (CNN), most observers presumed they "knew" more or less what had happened. Perhaps the most riveting images conveyed by CNN were the cockpit video of laser-guided bombs striking their targets with apparently unerring accuracy, and General H. Norman Schwarzkopf's briefing (live from Riyadh on the evening of 27 February 1991) of the dazzling, hundred-hour, desert blitzkrieg that routed Iraq's occupying army and liberated Kuwait with miraculously few friendly

Barry Watts is a retired U.S. Air Force officer whose military career included a combat tour in F-4s during the Vietnam War and service as a military assistant to the Director of Net Assessment, Andrew Marshall. Mr. Watts has been a senior analyst with Northrop Grumman since 1986, and he served as task force leader for operations and effects during the Gulf War Air Power Survey.

casualties. Judged on the basis of such images, Operation Desert Storm con-
stituted an unprecedented military triumph orchestrated by near-perfect generals
deftly employing state-of-the-art weaponry. Even the traditional frictions of war,
by which Carl von Clausewitz meant the various factors that distinguish real war
from war on paper (including war's intense physical demands, its mortal danger,
pervasive uncertainties, and the impact of chance), appeared to have been
banished—at least for the U.S.-led coalition.[1] As Jeffrey Record said less than
three weeks after the fighting officially ended, Desert Storm "was probably the
most frictionless war that we have ever fought."[2]

Although less than five years now separate us from those events, perceptions
of the war have already undergone tectonic changes relative to the initial
impressions conveyed by CNN and the rest of the media. Regardless of what
observers and participants may have thought at the time, television coverage did
not render the war transparent. Instead, as Eliot Cohen has observed, the
"thinness of television coverage, not its ubiquity, stands out in retrospect."[3] As
for Clausewitzian friction, not only did it pervade every level of the campaign—
tactical, operational, and strategic—but it now appears to lie at the very heart of
why coalition political leaders and military commanders failed, in the war's final
hours and immediate aftermath, to reap the political benefits of the coalition's
marvelous military performance.

These changes in our understanding of the 1991 Persian Gulf War stem from
many things, such as the distance and additional perspective provided by the
passage of time; the emergence into the public domain of vast amounts of
information concerning the planning and conduct of Desert Storm; the realiza-
tion that some of the fundamental propositions accepted as fact during the war,
even by senior participants, were not so; and such subsequent developments as
Iraq's stubborn efforts after 1 March 1991 to prevent the destruction by United
Nations inspectors of its nuclear weapons program.

Especially crucial to changes in our understanding of Desert Storm are "facts"
that turned out to be either inaccurate or hard (or impossible) to have known
at the time. When the coalition's ground offensive began on 24 February 1991,
General Schwarzkopf believed that he faced some 545,000 Iraqi troops, who
outnumbered his own by "3 to 2."[4] In reality, Iraqi troops in the Kuwait Theater
of Operations (KTO) numbered 325,000–350,000 men on 24 February and were
themselves outnumbered (although one should not read too much into the initial
ratio of troops).[5] Similarly, Schwarzkopf, the airmen who ran his air campaign,
and Defense Intelligence Agency analysts in Washington all believed during the
last days of the conflict that Iraq's nuclear program had been largely destroyed.[6]
Again, however, the truth was quite different, so much so that David Kay—who
led several of the early International Atomic Energy Agency teams charged under

UN resolution 687 with finding and destroying Iraq's nuclear program—was able to state by the summer of 1992 that UN inspectors had "identified and destroyed more of the Iraqi nuclear and missile programmes than Coalition intelligence or military power did before the cease fire."[7] In the case of the Iraqi nuclear effort, the bombing had stopped work and destroyed elements of the few known facilities, but the bulk of the program, while dispersed and hidden, remained intact—a fact that was unknown until after the war.

Beyond such changes in our appreciation of the facts of the campaign, there is also a conceptual threshold that must be crossed in order to begin placing the war in historical context: one must decide what overarching measures to use to judge it. Arguably, Paul Wolfowitz, who served as the Pentagon's Under Secretary for Policy during the Gulf war, has offered the most penetrating insights of anyone on this particular issue: "By and large, wars are not constructive acts and are best judged by what they prevent rather than by what they accomplish. The Gulf war prevented something truly terrible, as we now know even more clearly from post-war revelations about Saddam's nuclear program. It seems virtually certain that—if this program had not been stopped—he would have controlled the entire Arabian peninsula and would have turned his nuclear arsenal against either Iran or Israel, if not both countries in succession. To have prevented a nuclear war by a tyrant in control of most of the energy supplies that are the lifeblood of the industrialized democracies of the world was no mean accomplishment."[8]

From the moment Desert Storm ended, then, there were numerous reasons for anticipating that as time went on our understanding of the Persian Gulf War—for outside observers and inside participants alike—would undergo change, potentially substantial change. To cite an obvious example from an earlier era, consider how much our understanding of the Allies' victory over the German U-boat threat to Atlantic shipping during the second half of 1941 has changed since the 1970s, when details began to emerge about British code breaking at Bletchley Park and the ULTRA intelligence it produced.[9]

Instinctively, those who covered the war knew that much had occurred behind the scenes that had not been revealed to the public by the administration, official military briefings from the Pentagon or Riyadh, television coverage (including CNN from Baghdad), or other reporting. There are books that have aspired to add to the record by revealing insiders' views of the war. Unfortunately they have provided precious little synthesis and no analysis of the campaign beyond piecing together into a single narrative the recollections of particular events from various participants.

Gordon and Trainor's *The Generals' War: The Inside Story of the Conflict in the Gulf* may appear, on the basis of its subtitle, to be more of the same. In fact, however, it offers considerably more than behind-the-scenes war stories and

tales out of school. Over three years in gestation, *The Generals' War* balances its interviews of Bush administration officials, diplomats, U.S. and allied military officers, members of the intelligence community, and Iraqi Shiite refugees with extensive use of documentary sources. Its interviews start at the top with George Bush and include extensive discussions with General Schwarzkopf as well as with virtually all of his top ground commanders. Most importantly, the authors integrate documentary evidence and interviews into a comprehensive account of what occurred at the level of high command and subject the reconstruction of events to analysis.

Consequently, Gordon and Trainor offer the first overarching analysis of the war from the viewpoint of the principal American civilian and military actors. Of course, this book will not be the last word on the issue; as yet the public record on the Gulf war contains little on how Arab allies saw the war, and even less on the view from the Iraqi side of the hill.[10] Indeed, the lack of American interest in Iraqi perspectives and goals before, during, and after Desert Storm reveals a weakness in U.S. military culture that can be traced back at least to World War II.[11] Nonetheless, *The Generals' War* will probably stand the test of time as the point of departure for future historical analyses of the conflict's planning and conduct—especially of the ground campaign and the prickly issue of war termination.

The argument that lies at the heart of the book centers on four main issues: the implications of Khafji battles for the planning of the coalition's ground campaign; the effects of the air campaign on the Iraqi field army in the KTO by 24 February 1991 (G-Day), when the coalition's ground offensive began; the rapid loss of "situation awareness" that affected decisions in both Washington and Riyadh concerning when, and under what circumstances, to end the ground campaign; and, the lack of any coherent concept or plan for war termination.

To take these issues in order, Gordon and Trainor maintain that a major oversight in Desert Storm was the failure of Central Command (CENTCOM) to adjust plans for the ground campaign in light of what the Khafji battles at the end of January 1991 revealed about the Iraqi army: "CENTCOM never recognized the enormity of the Iraqi defeat in the January border battles. The command did not see the whole of the operation for what it was: a well-planned major offensive involving three heavy divisions from two corps, designed to humiliate the Saudi army, start the ground war, and begin to bleed the Americans.[12] Those on the ground saw only the tip of the iceberg because most of the Iraqi troops committed to the battle never made it to the front [having been decimated enroute by coalition air power]. And the ground generals who controlled the war—Schwarzkopf and [General Colin] Powell—were not inclined to accept the notion that an invading army could be destroyed from the

air. Confounded by Khafji, CENTCOM did not make a single substantive change in its plan for a land offensive as a result of the battle.[13] The consequences of the failure to appreciate the lessons of Khafji would lead to an incomplete victory weeks later" (p. 268).

Gordon and Trainor insist that, by contrast, the Marines under Lieutenant General Walt Boomer who encountered the Iraqis firsthand during the Khafji battles did learn from the experience. Boomer concluded in early February that the Iraqis could not move, shoot, and communicate at the same time, nor would they stand and fight once they had been bloodied (p. 295). Based on this judgment, he accepted the suggestion of Major General Bill Keys, one of his division commanders, that the original plan for the two Marine divisions to attack sequentially through a single breach be scrapped for a more aggressive approach in which both divisions would attack simultaneously, each making its own breach (p. 296). Thus by the eve of the ground campaign the Marines had put their attack plan in "fast-forward," believing that they could reach Kuwait City within three days, while the Army's two-corps "left hook" from the west stuck with its original timetable, starting the main attack a day after the Marines and requiring seven to ten days to destroy the Republican Guard (pp. 303–5 and 376).

Turning to the thirty-eight days of unrelenting air attack that preceded the coalition's hundred-hour ground campaign, Gordon and Trainor offer the following assessment: "The air war . . . confirmed the Air Force's growing ability to destroy targets deep in the enemy heartland and on . . . battlefields. By late February . . . airpower's success in crippling Iraq had not led to a political success comparable to its military success. . . . But while the air-war commanders had not won the war in downtown Baghdad, they [had] devastated the Iraqi army. By depriving it of any help from the Iraqi air force, forcing it to dig in, eliminating the prospect of a mobile defense, and knocking out much of the Iraqi armor and artillery, the air campaign had all but won the war" (p. 331). Going back to September 1990, Army offensive planners led by Lieutenant Colonel Joe Purvis had struck an agreement with Air Force planner Brigadier General Buster Glosson that the air campaign was to reduce the combat effectiveness of the Iraqi field army by 50 percent prior to the beginning of the ground campaign.[14] This criterion quickly came to be understood as entailing 50 percent attrition of the Iraqi tanks, armored personnel carriers, and artillery throughout the KTO prior to beginning the ground campaign, and this goal was carried forward into the CENTCOM operations plan for Desert Storm.[15]

Particularly against the Republican Guard heavy divisions (Tawakalna, Medina, and Hammurabi), the desired levels of equipment attrition were not achieved by G-Day.[16] But as the authors emphasize, the effects of the bombing had done the job insofar as Iraqi combat effectiveness was concerned: the first

and second echelons of the Iraqi army had become a hollow force, and even the Republican Guard units in the third echelon were pinned down and degraded (p. 354). Coalition air power also accomplished something else. The achievement of air superiority virtually from the outset of the campaign blinded the Iraqis to the coalition's massive redeployment of two full corps, VII Corps and XVIII Airborne, far to the west to form Schwarzkopf's "left hook."

As for the length and muddled ending of the ground campaign, Schwarzkopf states in his postwar autobiography that a radio message from the Kuwaiti resistance (received just before noon on 24 February) indicating that the Iraqis were pulling out of Kuwait City prompted him to order the main attack from the west moved up from the 25th to the 24th.[17] The heavy forces of XVIII Airborne Corps on the left (the 24th Mechanized Infantry Division and the 3rd Armored Cavalry Regiment, or ACR) and VII Corps on the right were to begin their planned attacks by 1500 hours on the 24th.[18]

However, Clausewitzian friction began to affect VII Corps almost at once. Its commander, Lieutenant General Frederick Franks, beginning his attack some fifteen hours ahead of schedule, was confronted almost immediately with his first critical command decision—whether to push ahead during the night or wait until morning (pp. 379–80). Desiring to keep his corps' scheme of maneuver synchronized, and disinclined to accept the high risk of fratricide that pressing on would have entailed, Franks chose to halt his entire attack until the next morning.[19] The heavy units from XVIII Airborne Corps, which, like VII Corps were basically unopposed, continued moving through the night.

The lost time proved impossible for VII Corps to make up. The weather along the border had been far from perfect on the morning of 24 February. Early morning rain showers and patches of fog were followed by blowing sand that reduced visibility to as little as two hundred meters during the day.[20] The morning of the 25th brought even worse weather, with episodes of *Shamal* (a mixture of rain and blowing sand) that heavily obscured the battlefield over the next thirty-six hours. Worse, Franks's command concluded from Joint Surveillance Targeting and Reconnaissance System (JSTARS) imagery that the Iraqis had identified VII Corps as the main coalition attack and were reacting to it in force—an inference that evidently led one of Franks's divisions to slow the whole corps' attack on the 25th by taking the time to reduce the small Iraqi force at Al Busayyah rather than bypassing it (pp. 384–86).

Iraqi decisions at this stage of the campaign further complicated the ground situation. By midnight (Riyadh time) of the 25th, JSTARS was showing heavy traffic moving north from Kuwait City toward Basra. At 0135 hours on the 26th (1735 hours, 25 February in Washington, D.C.), Baghdad radio announced an Iraqi withdrawal from Kuwait, and by morning, coalition intelligence in the theater was reporting a mass exodus led by the Iraqi III Corps in the east.[21]

Later on the 26th, VII Corps' 2nd ACR finally engaged the Republican Guard's Tawakalna Division at 73 Easting (a longitudinal line on Army maps west of the Wadi al-Batin); blowing sand and clouds kept the regiment's aviation squadron on the ground about half the time, and during the six-minute engagement itself visibility was less than one thousand meters.[22] This brief fight involving 2nd ACR was followed by a series of meeting engagements that by day's end had involved VII Corps' 1st Armored, 3rd Armored, and 1st Mechanized Infantry divisions. These battles, which were planned and fought as a single operation by VII Corps, all occurred in poor weather, and some of the fighting took place at night.[23] In such conditions it was impossible for either side to have a clear picture of the battlefield—although the coalition's picture was certainly less muddled than the Iraqis'. After the engagements along 73 Easting, VII Corps continued groping its way forward toward the rest of the Iraqi heavy forces. But not until the afternoon of the 27th did VII Corps' 1st Armored Division engage the Republican Guard's Medina Division and other Iraqi mechanized units.[24]

By midday of the 26th, the Marines had captured Kuwait International Airport, repelled a second Iraqi armored counterattack, and cleared the way for the liberation of Kuwait City by Arab forces; soon thereafter the U.S. Army's "Tiger Brigade," operating with the Marines, cut the main road between Kuwait City and Basra.[25] By 27 February most of the remaining Iraqi forces were retreating toward Basra, but only toward the end of the day did elements of XVIII Airborne Corps finally reach positions from which they planned to leap the next day, far enough east to "close the gate" north of Basra and prevent any additional Iraqi forces from escaping the theater (pp. 406–8).

In these dynamic and far-from-transparent circumstances, it should not be surprising then that on the 27th, when General Powell discussed with Schwarzkopf the possibility of quickly shutting down the war to avoid even the impression that the United States was "piling on" a defeated enemy or engaging in "wanton killing," neither general had an accurate picture of the battlefield.[26] Gordon and Trainor are probably correct in suggesting that Powell's decision to recommend that the president end the ground war after only one hundred hours was more a political judgment than a military one (pp.viii–x, 415, 423, and 470). Even if Powell had not by then actually seen media coverage of the so-called "Highway of Death," he had surely begun to anticipate that the damage inflicted by CENTCOM's forces on the retreating Iraqis might produce adverse publicity.[27] Furthermore, because Schwarzkopf himself did not have a precise idea of where his own units were or the status of the Republican Guard, and because he did not consult his subordinate commanders in the field, he had no obvious reason for resisting Powell.[28] Schwarzkopf's own account of his last two phone conversations with the Chairman on when to stop the war indicate

that he realized that some heavy equipment, including "several dozen top-of-the-line T-72s" belonging to the Guard, might escape destruction.[29] However, to avoid negative publicity and any further loss of friendly lives, he was willing to accept this seemingly minor untidiness concerning the destruction of the Republican Guard, the very force that had been identified by his own command as a "strategic center of gravity" of Saddam Hussein's brutal regime.[30]

Implicit in Gordon and Trainor's emphasis on the political nature of General Powell's role in stopping the war at one hundred hours is the judgment that the Chairman should have restricted himself to purely military matters. However, the authors' underlying presumption—that at war's highest level a clear division between things political and things military can be maintained—is at least open to debate. Clausewitz himself ridiculed this proposition as senseless.[31] More to the point, the 1986 Goldwater-Nichols Defense Reorganization Act implicitly agreed with Clausewitz, in specifying that the Chairman, in his strengthened role as the *principal* military adviser, could (subject to the direction of the president) "attend and participate in meetings of the National Security Council."[32] This change to Section 101 of the 1947 National Security Act surely opened the door to a strong chairman providing the sort of political-military advice that Clausewitz believed was unavoidable at the highest level of war. General Powell was certainly not a weak chairman.

Last but not least, Gordon and Trainor argue that those who planned and ran Desert Storm neglected to think through the military "end-game" and ensure that it encouraged the desired postwar political outcome.[33] That the outcome should perhaps have gone beyond ejecting the Iraqis from Kuwait and limiting Iraq's threat to the region, to entertain Saddam Hussein's removal from power, does not seem to have been seriously contemplated by the Bush administration. In the closing hours of the war, senior administration officials began to worry that using military force to effect Saddam's overthrow might fragment Iraq or lead to a lengthy occupation. Consequently, the matter of Saddam's fate was left to the Iraqis themselves. There was a vague hope among Washington officials that a leader or group might remove the Iraqi tyrant, but the administration was not prepared to take the matter into its own hands.

The prospects for this "hoped for" outcome were quickly reduced to the vanishing point by American inattention to war termination. Even before the coalition's cessation of offensive operations in the morning of 28 February, Schwarzkopf announced to the world, including Saddam Hussein, that coalition ground forces harbored no intention of going to Baghdad.[34] Then, having neither asked for nor received any political guidance, Schwarzkopf met with the Iraqis at the Safwan airfield on 3 March to negotiate a military cease-fire. There he assured the Iraqi delegation that coalition forces would depart their territory as quickly as possible and granted them the right to fly armed military helicopters

over Iraq without coalition interference (pp. 446–7). With the ambiguity of American military intentions removed and enough surviving military capability to reimpose his rule on Iraq, Saddam Hussein first suppressed the Shiite uprisings in the south and then contained the Kurds in the north.

This ragged and untidy ending forms the crux of Gordon and Trainor's critique of Desert Storm's planning and conduct. Having decided to go to war and delineated the campaign's political objectives, President Bush and other senior civilian leaders decided, in light of the perceived "mistakes" of Vietnam, to let the generals achieve the specified objectives more or less as they saw fit. Even setting aside Franks's cautious and methodical handling of VII Corps, Generals Powell and Schwarzkopf let some fairly large items slip through the cracks. In Gordon and Trainor's judgment, the Iraqis' willingness to stand and fight was misread. Khafji was ignored by all but the Marines, and the impact of the air campaign on the Iraqi army in the KTO was underestimated by Powell and Schwarzkopf, who simply could not bring themselves to believe that air power alone had largely shattered their foe's willingness and capability to fight. The left hook, especially its main attack, was not synchronized with the Marines' drive into Kuwait on the right; thus while enough Republican Guard and other Iraqi forces escaped destruction to enable Saddam Hussein to regain his grip on Iraq after Safwan. Last but not least, war termination was carried out in a political vacuum.

How justified are these criticisms? The physical facts on the ground at the end of the campaign remain matters for debate, if not confusion.[35] At his televised press briefing on the evening of 27 February, General Schwarzkopf claimed that the "gate" to the KTO had been closed as far as Iraq's military machine was concerned (p. 417).[36] While XVIII Airborne Corps' easternmost units were not by then on the ground north of Basra, or even approaching the city's outskirts from the west, most of the surviving elements of the Iraqi army were rapidly becoming trapped within a crescent oriented east-west and about thirty miles across, whose easternmost "horn" ran through Basra to the Shatt al-Arab waterway. Postwar analysis of U.S. reconnaissance photography reveals that on 1 March 1991 "the main concentration of surviving Iraqi equipment stretched from west of Az Zubayr, through Al Basrah, to the Shatt al Arab. Numerous smaller concentrations were scattered within Al Basrah and Az Zubayr, and in Iraqi-held territory along the roadways south of Az Zubayr. . . . The surviving Iraqi equipment included 842 tanks, at least 365 of which were RG [Republican Guard] T–72s; 1,412 other armored vehicles (mostly APCs [armored personnel carriers]); and 279 pieces of artillery of various types."[37] To be crystal clear on one contentious point, these surviving Iraqi forces had not been "pushed out the back door" of the KTO; instead they had been trapped against a door at the

theater's rear that was, for the most part, shut. Also worth noting is the fact that the ambiguous manner in which the decision to cease offensive operations at 0800 hours on February 28th was conveyed to CENTCOM ground forces led VII Corps to stop "in place by 0130."[38]

Whether these facts support or refute the claim that the American VII Corps' objective of "destroying" the Republican Guard was achieved by the morning of the 28th has also continued to be disputed. The U.S. Army's published account of its participation in Desert Storm asserts that the Republican Guard was "destroyed" but adds in the same paragraph that as many as one-third of the Guard's T-72s "made it out of the KTO," as did about one-third of the tanks in other Iraqi units.[39] Schwarzkopf himself has stated that his intent was to inflict such destruction on the Guard in particular, and the Iraqi army as a whole, that neither could any longer pose "a threat to any other nation."[40] Yet in October 1994 Saddam Hussein used forces, including armor that had escaped destruction during Desert Storm, to threaten Kuwait seriously enough to precipitate the redeployment of American forces, including ground troops, back to the Gulf.[41] This development alone, though it occurred over three years after Desert Storm officially ended, seems sufficient to refute once and for all the contention that the Republican Guard was "destroyed" in the sense of the coalition's political and military objectives.

Again, how legitimate are Gordon and Trainor's criticisms? Powell appears to have been the pivotal figure in the decision to stop the campaign at the round number of one hundred hours. At the same time, Schwarzkopf's actions before, during, and after the Safwan meeting—starting with his 27 February assurance that the coalition was not going to Baghdad—certainly went far toward preserving Saddam Hussein's regime long after President Bush left office. So the generals must share some of the blame for the timing and incoherence of the campaign's ragged ending. Yet it is far from obvious that ending the war in such a way as to ensure that military operations furthered political aims should have been left in their hands. War termination entails political nuances and judgments that presidents and secretaries of defense cannot reasonably expect of theater commanders in a democracy as fervently committed to civilian control as the United States. In this particular instance, the posture of U.S. forces at the end of the campaign mattered politically, as did American expectations for the behavior of Iraqi forces south of the Euphrates and Shatt al-Arab after offensive operations were suspended.[42] That the president and Secretary of Defense left these matters wholly in the hands of two generals without offering any political guidance to speak of seems, even in hindsight, nothing short of astonishing.

What about the planning and conduct of Desert Storm as a military campaign? Here the answer is more complex. Undeniably, the generals let some important things go astray, but to fault them unconditionally is to embrace the one

significant conceptual weakness of *The Generals' War*. Gordon and Trainor's inclination is to construe friction (as so many readers of Clausewitz's unfinished manuscript *On War* have done) as no more than a tactical phenomenon. Even though *The Generals' War* contains a chapter entitled "Friction," the notion is principally applied to "snafus," such as the malfunctioning of F-117 avionics or bomb-bay doors, geodetic map discrepancies in B-52 bombing computers, or the targeting of the Al Firdos bunker in the Ameriyya section of Baghdad when it was evidently sheltering civilians (pp. 207, 215, 318, 325, and 409). However, what Clausewitz termed the "unified concept of a general friction" (*Gesamtbegriff einer allgemeinen Friktion*) embraces considerably more, including the profound difficulties combatants face trying to function in the immediate presence of death or mutilation, the extraordinary physical demands combat can impose on participants of all ranks, the uncertainties of the information on which actions in war are based, and the whole range of unforeseeable difficulties that render the apparently easy so incredibly difficult in war.[43]

A common thread in these diverse constituents of general friction is that they can, singly or in combination, degrade or shatter "situation awareness." Fear of imminent death, coupled with combat's physical demands, can dramatically degrade the capacity of participants to retain composure, rationality, or anything approaching "the big picture." Being compelled by the pace of combat operations to make potentially life-and-death decisions in "real time" using fragmentary information of uncertain reliability only compounds these difficulties. Also, chance developments and unforeseen problems, including the unpredictability of interaction with the enemy, further complicate situation awareness.[44]

It is but a small step from recognizing this common thread to the realization that its effects cannot be limited to tactical glitches in the sense of balky equipment or unlucky targeting choices. As the authors' own analysis of the ground campaign confirms, misimpressions as subtle as the presumption by individuals that the Iraqis would stand and fight had a large and lasting impact on Desert Storm, as did the loss of "global" situation awareness by Powell and Schwarzkopf during the ground campaign. Viewed simply as mistakes or errors, in and of themselves, most of these specific frictional manifestations appear almost inconsequential, but, especially in their postwar consequences, they had unforeseen, if not unforeseeable, political and strategic effects.

In many fields today, including mathematics and physics, processes that exhibit this kind of "extreme sensitivity to perturbations in current or initial conditions" are termed *nonlinear*.[45] A structural feature of such systems is that their long-term, detailed behavior is formally unpredictable; very small differences in initial or current conditions are iteratively magnified through feedback until, at least in the so-called "chaotic" regions, they eventually dominate overall

behavior. Neither gathering more or better data nor processing it more efficiently can eliminate the long-term unpredictability of such systems.[46]

A related point is that since Clausewitz died in 1831 we have (unfortunately) accumulated much experience with war and combat processes. For example, postwar analysis of the performance of American F-86 pilots who flew in air-to-air combat during the Korean War revealed that among pilots having fifteen or more encounters with the enemy in a lead position, some performed vastly better than others—the top pilots in this group were more than three hundred times as likely to convert an encounter into a kill as pilots near the bottom in performance.[47] We also know from more contemporary sets of data (like those generated by the late 1970s Air Combat Evaluation flown on an instrumented range in Nevada, and by the Advanced Medium-Range Air-to-Air Missile operational-utility evaluation conducted in simulators during the early 1980s) that differences in human interactions outweigh those inherent in weapons, avionics, and platforms. In both these tests, situation awareness— meaning (in an air-to-air context) the *relative* ability of opposing pilots to visualize the current and near-term dispositions of both friendly and enemy aircraft— proved to be statistically "the single most important factor affecting engagement outcomes," regardless of aircraft type, avionics, or any other test variable.[48] Thus there is impressive empirical evidence that combat results even in an area as technology-intensive as air-to-air combat turn on relatively subtle differences in the ability of aircrews to retain a complete picture of what is occurring around them. Combat dynamics, in short, exhibit the telltale hallmarks of nonlinear systems.

Setting aside the unanswerable question of what Clausewitz himself "really meant" by general friction, it is but a modest step from twentieth-century empirical data of this sort to four interrelated realizations. First, human factors (like the conceptual assumptions combatants carry with them into battle, and their situation awareness once operations are underway) have, to this point in history, dominated combat outcomes. Second, a twentieth-century updating of Clausewitz's original concept would construe general friction as the inverse, or reciprocal, of situation awareness: high levels of friction entail low situation awareness, and vice versa. Third, while friction's dominance of combat results may not be as statistically quantifiable at the operational and strategic levels of war as in tactical engagements, Desert Storm's rocky end-game certainly confirms that the loss of situation awareness by high-level commanders and political leaders can dominate overall effects. Fourth, Desert Storm also provides strong empirical confirmation that friction can have highly nonlinear and unpredictable effects on the course and outcome of combat.

This late-twentieth-century "reconstruction" of Clausewitz's early-nineteenth-century notion of general friction suggests an important sense in

which Gordon and Trainor's criticisms of Desert Storm's planning and conduct are misguided. With the aid of hindsight and much additional information, they were able to highlight virtually every significant misstep, however tiny or seemingly innocuous at the time, by the generals who ran the war. Their unstated but implicit criticism is that these missteps could and should have been avoided. This presumption is especially evident in their contention that in late July 1990 the Bush administration should have heeded the minority intelligence assessment of the CIA's National Intelligence Officer for Warning, Charlie Allen, that there was a 60-percent chance that Saddam Hussein would seize Kuwait, and accordingly taken steps to deter the invasion (p. 16). What this conclusion overlooks is that everyone involved faced vast uncertainties prior to the event— the invasion was *unexpected*. Similarly, if combat processes themselves are inherently nonlinear, then expecting error-free, frictionless performance in the planning and conduct of war is unrealistic.

To come back to a point made at the outset, the impression conveyed by CNN that Desert Storm was relatively free of friction—if just on the coalition's side—was profoundly misleading. Even at the strategic level of the campaign, the American generals who orchestrated the operation encountered appreciable levels of friction, both in planning and prosecuting the war. As Gordon and Trainor document, the U.S. Air Force, Army, and Marine Corps tended "to go their separate ways" in planning and execution, notwithstanding the rhetoric of jointness that accompanied the campaign (p. 473). In this regard, it seems relevant to recall that Clausewitz himself first used the term "friction" to describe the chaotic Prussian command relationships—*three* commanders in chief and *two* chiefs of staff—that preceded Prussia's 1806 defeat by Napoleon at the twin battles of Jena and Auerstädt.[49] Granted, in Desert Storm the Iraqis generally experienced far higher levels of friction than did the coalition, an observation that goes far to explain why the military results were so one-sided. Coalition air planners, for instance, structured their initial efforts against at least three, and possibly four, Iraqi target systems with the explicit purpose of driving up enemy friction.[50] But to imply that there should have been no coalition missteps whatsoever ignores altogether the nonlinear nature of combat processes of war itself. At each "misstep," the key actors of the coalition faced enormous uncertainties as well as numerous alternatives, many of which would have been far worse than the ones they chose. For instance, the "ground-truth" information on which they would, in theory, have based their actions in a frictionless universe was obscured by a blizzard of misleading and false data filtered through the conceptual "blinders" that mere mortals can never entirely escape. Also, the onward rush of events left the participants with far less time to analyze and

second-guess their decisions than the more than three years Gordon and Trainor devoted to writing *The Generals' War*.

The standard of error-free performance by which Gordon and Trainor implicitly judged the generals who ran the war, then, is misguided. More penetrating and useful questions would have been: How well did Powell, Schwarzkopf, Franks, and other senior officers anticipate or deal with the frictions that could have been expected in the desert? Did either the generals who ran the war or their political masters take adequately into account the inherent difficulties of using military means to achieve positive political ends within the context of a limited war for limited objectives?[51] Obviously these questions are very different from the ones Gordon and Trainor chose to address.

That said, the argument that Gordon and Trainor's criticisms of the war's planning and conduct implicitly held the participants to the wrong standard should not obscure the considerable accomplishment their book represents. At this juncture in our evolving understanding of Desert Storm, *The Generals' War* is, by a good margin, the best strategic analysis of the campaign's overall planning and conduct to date. Indeed, given the strong American cultural proclivity to eschew studying past wars, one suspects that many of the war's participants might themselves well learn a few things from a reflective reading of *The Generals' War*.

Notes

1. Carl von Clausewitz, *On War*, trans. Peter Paret and Michael Howard (Princeton, N.J.: Princeton Univ. Press, 1976), pp. 104, 119, and 122.

2. Neil Munro, "Jeffrey Record: Defense Analyst," *Defense News*, 18 March 1991, p. 46.

3. Eliot A. Cohen, "Tales of the Desert: Searching for Context for the Persian Gulf War," *Foreign Affairs*, May/June 1994, p. 142. Eliot Cohen was the director of the Gulf War Air Power Survey (GWAPS). Commissioned on 22 August 1991 by Secretary of the Air Force Donald Rice, it endeavored to provide an analytical and evidentiary point of departure for future studies of the conflict, particularly of the air campaign at the operational level of war. The present reviewer oversaw GWAPS work on operations and effects.

4. "Excerpts from Schwarzkopf News Conference on Gulf War," *The New York Times*, 28 February 1991, p. A8; H. Norman Schwarzkopf with Peter Petre, *The Autobiography: It Doesn't Take a Hero* (New York: Bantam Books, 1992), p. 408.

5. Alexander S. Cochran et al., *Part I: Planning in Gulf War Air Power Survey*: vol. I, *Planning and Command and Control* (Washington: U.S. Govt. Print. Off. [hereafter GPO], 1993), pp. 203–5; and Barry D. Watts and Thomas A. Keaney, *Part II: Effects and Effectiveness in Gulf War Air Power Survey*: vol. II, *Operations and Effects and Effectiveness* (Washington: GPO, 1993), p. 220. The figure of 325,000–350,000 Iraqi soldiers in the KTO on G-Day is based on total deployment of 51 divisions, not the 43 that has been widely reported since the war; see, for example, Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress Pursuant to Title V of the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991* (Washington: GPO, April 1992), pp. 254–5. The 325,000–350,000 figure also takes into account eight corps headquarters as well as various independent brigades and battalions.

6. Schwarzkopf with Petre, p. 499; and Watts and Keaney, p. 328.

7. David A. Kay, "Arms Inspections in Iraq: Lessons for Arms Control," unpublished paper, 12 August 1992, p. 5. For further details see David A. Kay, "Denial and Deception Practices of WMD Proliferators: Iraq and Beyond," *The Washington Quarterly*, Winter 1995, pp. 86–8 and 97–9.

8. Paul D. Wolfowitz, "Managing the Schwarzkopf Account: Atkinson as Crusader," *Joint Force Quarterly*, Winter 1993–94, p. 124.

9. F.H. Hinsley and Alan Stripp, eds. *Codebreakers: The Inside Story of Bletchley Park* (Oxford: Oxford Univ. Press, 1993), pp. 6 and 44. Hinsley states that the first victory over the U-boats in the second half of

1941 was "achieved entirely on the basis of Ultra," which made possible a six-month decline in sinkings due to "evasive routing of convoys."

10. For one of the few public comments by a high-level Saudi participant, see General Khalid Bin Sultan, "Schwarzkopf Did Not Win War Alone," *Defense News*, 26 October-1 November 1992, pp. 19–20.

11. Ken Pollack deserves credit for stressing this important insight.

12. Gordon and Trainor's wording in this passage implies that the Iraqis committed entire divisions in the Khafji battles. The five cross-border penetrations that the Iraqis attempted between the evening of 29 January 1991 and sunrise the next day were carried out by units considerably smaller than divisions—for the most part by battalions; see Watts and Keaney, pp. 234–5; also, Brigadier General Robert H. Scales, Jr., *Certain Victory: The U.S. Army in the Gulf War* (Washington: Office of the Chief of Staff, 1993) p. 190. As for the elements of the Iraqi 3rd Armored and 5th Mechanized Divisions that were decimated by coalition air power on the night of 30–31 January while trying to move south, information is sketchy, but the best guess is that the units involved were brigades rather than divisions. While JSTARS imagery of these events still exists, the in-depth review of these tapes that would be needed to reduce uncertainties about the forces involved had still not been attempted as of early 1995.

13. Scales's discussion of the Khafji battles indicates that the VII Corps commander did subsequently direct that increased efforts be made by coalition air power to destroy the Iraqi 52nd Armored Brigade prior to 24 February in order to protect the corps' right flank; see Scales, pp. 191–2.

14. Cochran et al., p. 170.

15. Watts and Keaney, pp. 82 and 94–5; and Scales, p. 187.

16. In the case of the three heavy Republican Guard divisions, overall attrition of tanks, APCs, and artillery was 25.5 percent by G-Day; Central Intelligence Agency, Office of Imagery Analysis, "Operation Desert Storm: A Snapshot of the Battlefield," IA 93-10022 (Washington: September 1993). The theaterwide figure is about 38 percent; Watts and Keaney, pp. 213 and 219.

17. Schwarzkopf with Petre, pp. 453–4. Schwarzkopf alerted both U.S. corps through Lieutenant General John Yeesock, as well as the multinational ground forces through Lieutenant General Khalid Bin Sultan, by midmorning (local time) on 24 February 1991 of the possibility that he might move up the timing of the coalition's main attack.

18. The other three units in XVIII Airborne Corps—the U.S. 82nd and 101st Airborne Divisions and the French 6th Division—started well to the west of the 24th Mechanized Division and began attacking on the morning of 24 February 1991.

19. Richard M. Swain, *"Lucky War": Third Army in Desert Storm* (Fort Leavenworth, Kans.: U.S. Army Command and General Staff College Press, 1994), pp. 236–7 and 248.

20. *Ibid.*, p. 229.

21. Swain, p. 250; also, author's recollections from a 1995 Air Staff review of JSTARS tapes for the night of 25–26 February 1991.

22. Swain, p. 390; and Scales, pp. 261–2.

23. Scales, pp. 261–2 and 265–6. The U.S. Army refers to 2nd ACR's encounter battle on 26 February alone as the "Battle of 73 Easting"; the encounter battles that followed, which saw VII Corps' 1st and 3rd Armored Divisions and 1st Mechanized Division attack defensive lines manned by the Iraqi Tawakalna Division and one brigade of 12th Armor roughly along the 73 Easting, are usually called "The Battle of Wadi al-Batin." As Ken Pollack has pointed out, these encounter battles, *not* the Battle of Medina Ridge on the following day, constituted the largest armored engagement of Desert Storm.

24. Scales, pp. 292 and 296. At the Battle of Medina Ridge five battalions of the U.S. 1st Armored Division engaged the Medina Armored Division's 2d Brigade plus a part of a brigade from the Adnan Division. Other elements of 1st Armored engaged brigades of the Iraqis' 10th and 12th Armored Divisions around the same time as the Battle of Medina Ridge.

25. Swain, p. 254.

26. Schwarzkopf with Petre, p. 468.

27. Eliot A. Cohen and Thomas A. Keaney, *Gulf War Air Power Survey: Summary Report* (Washington: GPO, 1993), pp. 250–1. While television coverage on 28 February left many viewers with the impression that most or all of the roughly sixty-five miles of north-south highway between Al Jahrah (just west of Kuwait City) and Az Zubayr (about twenty miles southwest of Basra) was littered with vehicles destroyed by coalition aircraft, the concentration of some 1,400 vehicles (mostly cars and trucks) that produced the "Highway of Death" scenes actually covered just the two kilometers heading north from Al Jahrah to Mutlah Ridge.

28. Swain, p. 247. Swain argues that as early as 25 February the use of imprecise language by VII Corps and Third Army in communicating their intentions to Schwarzkopf's headquarters in Riyadh caused a gap between the theater commander's perception and that of his subordinate field commanders.

29. Schwarzkopf with Petre, pp. 471–2.

30. Watts and Keaney, p. 85.

31. Clausewitz, pp. 607–8.

32. Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-433, approved by the president 1 October 1986, Section 203.

33. Fred Charles Ikle, *Every War Must End* (New York: Columbia Univ. Press, 1971), pp. v and 108. After the ground war started, Ikle had some ideas on war termination; he pulled them together and sent them through Wolfowitz to Cheney, but by then it was too late to affect events in the theater.

34. Excerpts from Schwarzkopf News Conference, p. A8.

35. See, for example, the June 1993 U.S. Naval Institute *Proceedings* [hereafter *USNIP*] article by Colonel James Burton, "Pushing Them Out the Back Door," pp. 37–42. *Proceedings* published a special section in August 1993 containing rebuttals to some of Burton's more sensational charges of Army ineptness during the ground campaign by such officers as Lieutenant General Ronald Griffith, who commanded the 1st Armored Division, VII Corps, during Desert Storm. Burton responded in the November 1993 issue of the *Proceedings* (pp. 19–25); the dispute continued into 1994. Much of the heat was generated by criticisms of Army commanders and doctrine.

36. Excerpts from Schwarzkopf News Conference, p. A8.

37. Central Intelligence Agency, Office of Imagery Analysis. Of the totals cited, at least thirty-nine tanks and fifty-two other armored vehicles belonging to the Hammurabi Division were destroyed in the early morning hours of 2 March 1991 by the American 24th Mechanized Infantry Division as the Iraqis attempted to reach the Hawr al Hammar causeway and escape northward.

38. Swain, p. 290.

39. Scales, pp. 301 and 314–5. The U.S. Army view is that by the evening of 27 February "VII Corps had broken five Iraqi heavy divisions: Tawakalna, Medina, 10th Armored, 12th Armored, and 52d Armored." General Griffith has taken the same position (see "Mission Accomplished—In Full," *USNIP*, August 1993, pp. 64–5). It is possible, however, that the use of the word "destroyed" in reporting from VII Corps units at this stage meant only that the enemy forces so described had been rendered combat-ineffective, whereas Schwarzkopf may have been inclined to interpret the word more strongly.

40. Schwarzkopf with Petre, pp. 384, 465, and 499.

41. See Michael R. Gordon and Bernard E. Trainor, "How Iraq Escaped to Threaten Kuwait Again," *The New York Times*, 23 October 1994, pp. 1 and 6.

42. Swain, p. 280. The coalition officially suspended offensive operations at 0800 hours (local) on 28 February 1991. A military cease-fire between the two sides was negotiated at Safwan on 2 March.

43. Clausewitz, pp. 113–23; also Carl von Clausewitz, *Vom Kriege*, ed. Werner Hahlweg (Bonn: Dummler, 1980 and 1991), p. 265.

44. Clausewitz, p. 139. Clausewitz did observe that "the very nature of interaction with the enemy is bound to make it unpredictable." However, few readers of his manuscript have linked this unpredictability with chance or the unified concept of general friction.

45. J.A. Dewar et al., "Non-Monotonicity, Chaos, and Combat Models," RAND Report R-3995-RC (Santa Monica, Calif.: 1991), p. 2.

46. James P. Crutchfield et al., "Chaos," *Scientific American*, December 1986, p. 46; also Heinz-Otto Peitgen, Hartmut Jurgens, and Dietmar Saupe, *Chaos and Fractals: New Frontier of Science* (New York: Springer, 1992), p. 10.

47. Dennis Strawbridge and Nannette Kahn, "Fighter Pilot Performance in Korea," Institute for Air Weapons Research (IAWR), IAWR Report 55-10 (Univ. of Chicago: 15 November 1955), p. 71. Some of the sixty-nine 4th Fighter Interceptor Wing pilots (out of a total population of 520) with fifteen or more encounters had been able to convert 70–80 percent of these opportunities into firing passes and 60–70 percent of their firing passes into kills, whereas others had converted as few as 15 percent of their encounters into firing passes and as few as from zero to 10 percent of those firing passes into kills.

48. Veda, Inc., "AMRAAM OUE Red Lessons Learned Briefing (U)," 29 January 1982; S.R. "Shad" Dvorchak, "Man-in-the-Loop Lessons Learned," 1985, vugraph 1; and S. R. Dvorchak, "On the Measurement of Fog," symposium presentation, Military Operations Research Society, Washington, June 1986, vugraph 7. The AMRAAM OUE, which utilized line combat-ready pilots from Tactical Air Command to keep the human dimension in the loop, generated the equivalent of some twenty-thousand air-to-air sorties, vugraph 9.

49. Peter Paret, *Clausewitz and the State: The Man, His Theories, and His Times* (Princeton, N.J.: Princeton Univ. Press, 1976), p. 124.

50. The targets involved were the "Kari" system, which formed the heart of Iraq's strategic air defenses; national-level telecommunications and command and control; leadership facilities used by Saddam Hussein's regime; and Iraqi electric power.

51. Swain, p. 280. Swain argues that the tendency to separate wartime miliary matters from peacetime political issues is a "fundamental weakness" in the traditional attitude of American soldiers toward civil-military relations.

<div align="center">Ψ</div>

The World War II Commemorative Flag

The Department of Defense World War II Commemoration Committee was established in 1990 primarily to thank and honor the veterans of the war, their families, and those who served on the home front, and also to educate Americans about World War II. As a designated Commemorative Community, the Naval War College flies this blue, gold, red, and white flag under the national ensign.

<div align="center">★ ★ ★ ★ ★</div>

BOOK REVIEWS

A book reviewer occupies a position of special responsiblity 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

Owens, William A., *High Seas: The Naval Passage to an Uncharted World.* Annapolis, Md.: Naval Institute Press, 1995. 178pp. $27.95

High Seas is part history, part memoir, and part discussion of strategy for the Navy and the nation in the post–Cold War world. The discussion of deterrence and how deterrence has changed after the demise of the Soviet Union is both thought provoking and worthy of further study and debate. The author proposes the following definition of deterrence in this new era: "Deterrence refers to how the United States can use its military forces—nuclear and non-nuclear—to dissuade potential opponents from developing or using their military forces in ways the United States finds objectionable." His treatment of this subject should be of value to students of national security and practitioners of the military profession.

The book describes the changes that took place in the Navy Staff in 1992 and 1993. Owens was the architect of many of those changes, and his discussion of the need for change should be of interest to those having concern for the Navy and its organizational history. It is my belief that the changes he describes were essential to permit the Navy to

plan for the reductions dictated by the new administration and the changes taking place in the defense establishment. The Navy could not continue to plan as it had in the Cold War years. The changes are, of course, controversial. Owens's discussion will be of great interest to career officers and historians. His views should be particularly useful in illustrating how change can take place in a large bureaucratic organization.

Admiral Owens's treatment of how the Navy's force structure may change over the next twenty to thirty years will undoubtedly cause many to question the path he would follow. The basic question of what should be the next generation naval hardware and technology is of paramount interest. Owens believes that tomorrow's naval forces will be much different and shaped significantly by advances in technology. This view leads to fewer forces, possessing higher technological capability, connected by advanced communications and data links. These forces will depend on much-improved sensors and precision-guided weapons.

The author also advocates much closer cooperation with the other services than took place in the Cold War

era. Of particular interest is his advocacy of closer integration of Navy and Marine aviation. He believes greater flexibility in the aircraft loading on our carrier decks is necessary and that tailoring for the specific mission will be the rule rather than the exception. These subjects should provoke much thought, and they will certainly stir emotions. It is my judgment that discussions of these issues are healthy and must take place to help shape the difficult decisions ahead for the Navy as the post–Cold War era unfolds. As always, the Navy will be hard pressed to maintain sufficient ready forces to meet its deployment requirements. The trade-off between technology and numbers will dictate some hard choices; indeed some very tough choices have already been necessary.

Owens is eminently qualified to lead the discussion in his book. He skillfully uses his experiences as Commander Sixth Fleet to show the reader that he has the real-world knowledge and hands-on experience needed to lend credibility to his words.

High Seas should be of great value to war colleges and other educational institutions involved in the business of national security. Owens has demonstrated in *High Seas* that he has the courage to take on the difficult problems facing the nation and the armed services in the evolving national security debate.

FRANK B. KELSO II
Admiral, U.S. Navy, Ret.
Springfield, Virginia

McNamara, Robert S. *In Retrospect: The Tragedy and Lessons of Vietnam*. New York: Times Books, 1995. 414pp. $27.50

*History to the defeated may say alas
but cannot help or pardon.*

W.H. Auden

In December 1980 I interviewed Robert McNamara, then president of the World Bank, while researching a book I was writing on Maxwell Taylor. When I attempted to raise questions concerning the Vietnam War, he told me that he had decided long before not to discuss that matter for publication. So now he has written a book on that subject. Why did he change his mind at this late hour? His answer as set forth in the preface of the book: "I have grown sick at heart witnessing the cynicism and even contempt with which so many people view our political institutions and leaders." Indeed! But was it McNamara's past actions that contributed to that cynicism? After reading this book, one might grow even more cynical.

The book follows the chronology of McNamara's Vietnam involvement from 1961 until his departure from the Pentagon in early 1968. It is not an impressive work, for many reasons. There are some significant omissions (probably deliberate), and it contains no new documentation. Stylistically, the writing is mechanical and somewhat shallow. But particularly disappointing is his lack of insight into the other major decision makers.

Since the book focuses on Vietnam, it does not cover in detail the author's

Pentagon activities in other areas. A few words about these are necessary to set Vietnam matters in context. McNamara's early imprint as Secretary of Defense was made through management. He was the watershed secretary, and the Pentagon has never been the same since. If we leave aside Vietnam, Mc-Namara played a major and successful role in the development of national strategy and defense policy in the first three or four years of his tenure, but what he did not achieve in the process was a relationship of trust with the military. In fact, he created a serious rift in civil-military relations. In addition, the Joint Chiefs of Staff (JCS) as a group were denied adequate presidential exposure. The JCS were, after all, the principal military advisers to the president; of course, they worked also for the Secretary of Defense, but what they should have been doing was too important for the Secretary to have served as a go-between to the president in major matters of war and peace. The result was that when the time came the senior military did not participate sufficiently with the president in developing major decisions concerning the Vietnam War.

When assessing the Kennedy period in 1963, McNamara cannot resist that well known counterfactual that begins, "If Kennedy had not been assassinated . . . ." He concludes that "John Kennedy would have eventually gotten us out of Vietnam, rather than move more deeply in." We have heard this before, and there is no new material in this book or in its cited sources to support that conclusion. Here I would render on McNamara's conclusion the familiar

verdict of Scotland's judicial system: *Not Proven.*

The major shaping event in Vietnam in the fall of 1963 was the assassination of South Vietnam's President Ngo Dinh Diem in early November, three weeks before Kennedy's own assassination. To put it in Maxwell Taylor's words, what happened to Diem was "one of the great tragedies of the Vietnamese conflict and an important cause of the costly prolongation of the war into the next decade." The key initiating event was the infamous 24 August 1963 cable engineered by Undersecretary of State for Political Affairs W. Averell Harriman and Roger Hilsman, Director of the Bureau of Intelligence and Research in the State Department, while McNamara and Secretary of State Dean Rusk were out of town. The cable to Ambassador Henry Cabot Lodge in Saigon in effect gave Lodge and the CIA permission to work with the South Vietnamese to overthrow the Diem government.

McNamara covers events subsequent to the cable in some detail, including his trips to Vietnam both just before and just after the coup, and his recounting seems straightforward. Insofar as events themselves were concerned, only a strong position with the president against both the cable and Lodge's subsequent actions could have possibly had effect. His failure to lead in this major turning point in the war lay not in what he did but in what he failed to do—intervene forcefully in this matter, even though he probably felt ambivalent about it.

I earlier alluded to omission of significant events from McNamara's

narrative. One of these is Lyndon Johnson's failure to call up the reserve forces in July 1965—contrary to the original recommendation of McNamara and the JCS—which in time resulted in the worldwide deterioration of the U.S. Army. Johnson had hoped to avoid debate (he well knew there would be one in Congress and elsewhere) and possible deleterious repercussions for his Great Society programs. It was a momentous step that merely postponed such a debate. It would have been interesting to know why McNamara did not support the JCS and push harder for a reserve call-up. Ironically, in the end it was public debate on the course of the war that brought Johnson down.

Another area of omission concerns an event I first heard of in October 1966 at a conference in Saigon during a McNamara trip. In spite of some military opposition, McNamara had during the previous month approved a project that later would be called "the McNamara Line"—an electronic and firepower fence that, with some troops, would supposedly keep the North Vietnamese out of the South. At the conference he stated, "I will absolutely guarantee that a year from today there is going to be a barrier up there." It was never successful and never completed. Today the North Vietnamese offer tours of this curiosity—a sort of Vietnamese Maginot Line. While this project was perhaps meant as a sop to the scientific community (its chief project officer, General Starbird, thought so), it was most expensive in resources as well as ill advised, and one can see why McNamara

does not allude to this failure in the book.

Another significant omission by McNamara is the February 1966 Honolulu conference. Early in the book he evades discussion of this and certain other significant Pacific conferences, stating that he has no specific memory of those meetings. Why not have researched them, as he did many other events in the book?

I raise this matter because his selective recall strikes me as disingenuous. Specifically, he implies that the objective of the attrition strategy, in particular the "crossover point"—at which enemy casualties would be greater than could be sustained—was something that Westmoreland decided. In fact, at the Honolulu conference Westmoreland was given a joint Defense-State directive requiring him to achieve the following result: "Attrit, by year's end, VC/PAVN [Viet Cong/People's Army of Vietnam] forces at a rate as high as their capability to put men into the field." This directive was the origin of the crossover point. It was McNamara's strategy as much as anyone's that Westmoreland set about to accomplish.

In this context McNamara raises the issue of "body counts," about which some commentary is in order. In a nonlinear war, measurement of the way things are going inevitably involves indicators other than geography: thus the body count. When McNamara speaks of the reports of enemy killed as being often misleading, he is correct (p. 235). In replies to a questionnaire included in the 1985 book *The War Managers* (Avery Publishing Group), 61 percent of the

Army generals who had commanded in Vietnam stated that the enemy body count was often inflated. McNamara is also correct that critics specifically connect him with the body count. For example, *The War Managers* quotes a general that the body count was "the bane of my existence and just about got me fired as a division commander. They were grossly exaggerated by many units primarily because of the incredible interest shown by people like McNamara. . . . I shudder to think how many of our soldiers were killed on a body-counting mission—what a waste."

Inevitably, the book ends with a chapter entitled "The Lessons of Vietnam." McNamara lists eleven major causes for our disaster in the war. These are the usual formulations, which have become banal at this point: failure to retain public support, ignorance of the indigenous situation in Vietnam, the limitations of military technology in a revolutionary environment, etc. All of these could have been articulated equally well by most of the undergraduates I taught in the 1970s.

In Retrospect's theme reflects observations arrived at by most people a quarter of a century ago—that the war in Vietnam was an American tragedy that was poorly conceived, inadequately understood, and improperly managed by Washington. The author makes it clear that he knew the war was wrong, certainly in 1967 and probably earlier. Why he did not go public then, when it might have made a difference, rather than delay his *mea culpa* until his seventy-ninth year is a matter difficult to understand, but certainly one he will have to live with.

In sum, the book brings to mind John Maynard Keynes's assessment of the Treaty of Versailles: it is "without nobility, without morality, without intellect."

DOUGLAS KINNARD
Richmond, Virginia

Ψ

Historical Miniatures Gaming Society
Annual Forum and Call for Papers

HMGS announces its third annual Military and Naval History Forum, 8–10 March 1996, in Lancaster, Pennsylvania. Papers are invited: the Forum will consider any original idea in any period of military and military history, deadline 15 November 1995. Information: Richard D. Brooks, South Carolina Institute of Archaeology, 1321 Pendleton St., Univ. of South Carolina, Columbia, S.C., 29208, (803) 725-1604.

— WORLD WAR II — 50 YEARS ASTERN

"The Threat to Civilized Life, Posed by the Axis Powers with Values so Completely Monstrous, Was Why the Second World War Was Worth Fighting."

Weinberg, Gerhard L. *A World at Arms: A Global History of World War II.* New York: Cambridge Univ. Press, 1994. 1,178pp. $34.95

NO STUDENT OF WORLD WAR II should dismiss this book simply because it is a survey history. It is a blockbuster of a survey, grounded, to a remarkable extent for so large a work, in primary sources and also in an evident mastery of the secondary literature. It is a joy to read: lively, vigorous, and opinionated (often to the point of being caustic) but altogether a stylistic gem of the sort that professional historians write all too rarely.

Weinberg's opinionated quality can be found in his willingness to identify good and evil as just what they are without succumbing to the historical relativism that is so unwilling to make judgments that it portrays both black and white as gray. He reminds us that the threat to civilized life, posed by the Axis powers with values so completely monstrous, was why the Second World War was worth fighting. Thus there is no shilly-shallying pretense that a separate British peace with Germany would not have been unreasonable following the fall of France. It was peace feelers extended by Germany to Great Britain that encouraged the notion that because of Hitler's love-hate relationship with the British and his admiration of the British Empire, he allegedly would have allowed the empire to remain essentially intact in exchange for acknowledgment of his hegemony

in Europe. However, what Hitler actually had in mind for the British, who if treated leniently might have threatened again his long-term domination, was death for the leadership groups, exile to scattered locations for many, and subjugation to the German master race for the rest.

Yet Hitler's intentions toward the United States were not so well defined. Weinberg helps us to clearly understand Hitler's maritime ambitions. Ultimately the Führer intended that Germany become not only the dominant land and air power but the preeminent maritime power as well. His Kriegsmarine was to include not only the world's mightiest submarine fleet but also a formidable surface force of large battleships and carriers able to overcome the Anglo–Saxon powers in their own element. The outbreak of war in 1939 caused a postponement, which Hitler believed to be only temporary, of the surface fleet buildup. But construction was interrupted twice again, in the autumn of 1940 during the intensive preparations for the invasion of the Soviet Union and in late 1941, when it became evident that the land war in the East would not be won quickly. Thereafter the opportunity to resume the big-navy project never returned.

Weinberg dispels the belief that Hitler never cared about sea power (except for submarines) when he argues that one of the principal reasons for solidifying his relationship with Japan was the suspension of plans for a major German surface fleet. When Germany entered into the Tripartite Pact on 27 September 1940, it was hoping to make use of the Imperial Japanese Navy against the navies of the United States and Great Britain, thereby offering a stopgap for the eventual German fleet. Unfortunately for Hitler, the Japanese navy suffered from fatal deficiencies of its own: the failure of the Axis to create a combined naval strategy, coupled with Japan's lack of industrial strength to conduct a warship-building competition against the United States. Fortunately for the Allies, the Axis proved incompetent in global strategic planning, as Weinberg details in his assessment of Japanese purposes: "Japanese forces invaded Thailand, beginning what they called freeing Asia from European control by seizing Southeast Asia's only independent country." He is especially effective in his discussion of the missed opportunity by the Axis to exploit the Japanese naval penetration of the Indian Ocean in 1942, not only to threaten India but also to constrict the Western Allies' lines of communication to both North African and Soviet theaters of war.

However, even more impressive is the author's equally clear-eyed recognition of cynicism in the policies of certain non-Axis countries. For example, Weinberg tears to shreds the rationalization that the Soviet Union's Nonaggression Pact with Germany of 23 August 1939 was a justifiable or at least understandable effort to buy time and a buffer zone. Far from benefiting the Soviets, the pact did much to ensure that they would begin their own war against Germany without a second front in the West, for which they were to plead so desperately; meanwhile they were eagerly complicitous in German aggression, notably by providing a base at Zapadnaya

Litsa near Murmansk to assist in the assault on Narvik, Norway. Less immoral perhaps but deserving of Weinberg's acrid remarks are the later self-righteous lecturers to the world on international morality: the Swedes. Geography obviously gave them plenty of reason to fear Hitler, but they went well out of their way to cooperate with him even after the tide of war had turned and the cause for fear had diminished.

Thus *A World at Arms* offers refreshingly forthright judgments on every major aspect of World War II strategy and policy. Moreover, while even so large a book cannot deal in detail with most of the campaigns, Weinberg has crammed an impressive quantity of information and his customary candid opinions into the sections on military operations, including the United States Navy's war in both the Atlantic and Pacific.

Russell F. Weigley
Distinguished University Professor
Temple University

∎

Smith, Bradley F. *The Codebreakers' War: The Ultra-Magic Deals and the Most Secret Special Relationship, 1940–1946.* Novato, Calif.: Presidio, 1993. 229pp. $24.95

Bradley F. Smith's *The Codebreakers' War* chronicles the developing cooperation between the United States and Great Britain aimed at sharing secret wartime cryptanalytic information. Smith sets the scene for that cooperation by establishing the Anglo-American diplomatic background and introducing the intelligence organizations of both nations. Here, of course, the U.S. was notably deficient. Its intelligence capability was severely underdeveloped, suffered from significant interservice rivalries, and had a troublingly cavalier attitude toward security—all characteristics calculated to retard the development of an intelligence partnership. The product of

thorough research in collections and archives, and heavily although often confusingly footnoted, Smith's work fills in many of the blanks in the bureaucratic "courtship" of the two countries that resulted in an agreement of unprecedented proportion in the realm of secret communications.

Proceeding in fits and starts, the nations started down the path to a comprehensive agreement as early as August 1940. Much of the early British inducement toward cooperation stemmed from their overestimation of U.S. accomplishments, while American interest was piqued by the very real technical advances that the British were able to demonstrate. Smith goes to great lengths to point out the laissez-faire attitude taken by the Roosevelt administration toward intelligence matters and repeatedly castigates both Army and Navy cryptanalytic organizations

for shortsightedness and lack of coopera-
tion. It was harder, it seems, to get the
services together than the countries.
"[T]here was deep resistance within Op-
20-G [in charge of the Navy cryptanalysis
effort] to the sharing of cryptanalytic in-
formation with any foreign government"
and the department "was almost as
cautious about sharing . . . information
with the U.S. Army."

An arrangement was in place as early
as December 1940 but broke down
when the U.S. became convinced that
Bletchley Park officials were less than
forthcoming. Smith's prowess as a
popular historian of World War II is
evident as he traces the development of
a lasting deal in juxtaposition with
events in the theaters of war that
provided impetus to an effective agree-
ment. True cooperation began with the
U-boat war in the North Atlantic. This
cooperation grew to culmination in
1943 with the BRUSA (Britain-USA)
agreement—"the written constitution
upon which arose the Anglo-American
cryptanalytic partnership that flourished
during the final two-and-a-half years of
World War II and, in modified forms,
has continued until the present."

It is the chapter on BRUSA which is
the heart of the book. As he did for *The
Shadow Warriors: OSS and the Origins of
the CIA*, Smith has combed exhaustive-
ly and methodically the available sour-
ces, some through the Freedom of
Information Act. However, with the
exception of this section, for which he
has utilized a recently declassified Na-
tional Security Agency history of the
period, there is little that is new and
much that remains speculative or un-
proven. The book also disappoints on

the issue of Arlington Hall, about which
far less is known than Bletchley Park, a
shortcoming Smith readily acknowledges.

Postwar cooperation, the author
maintains, was fueled as much by the
inability of the partners to free themsel-
ves from each other's embrace (having
shared their most intimate secrets, each
could exploit the other far too easily) as
it was by the Cold War. As Smith
speculates on the basis of some credible
evidence, the USSR had become a
combined intelligence target even
before the end of the war. While admit-
ting the lack of open documentation
establishing a continuing agreement be-
tween Washington and London, and
providing little substantial evidence and
much conjecture, Smith is surely on safe
ground as to the existence of such an
arrangement and the reasons therefor.
Indeed, there is an interesting timeliness
and irony. Britain, which entered these
wartime agreements as the senior
partner, now faces severe budget cuts
aimed at its electronic monitoring head-
quarters at Cheltenham, which it fears
(see *The Times* [London], 26 March
1995) may end the intelligence "special
relationship." They will simply have
nothing to bring to the table.

WILLIAM G. BITTLE
Dean and
Associate Professor of History
Kent State University, Stark Campus

Runyan, Timothy J. and Copes, Jan
M., eds. *To Die Gallantly: The Battle
of the Atlantic.* Boulder, Colo.:
Westview, 1994. 347pp. $55

A number of books have appeared commemorating the fiftieth anniversary of World War II. Some have been good and some bad; this book belongs in the former group. It is a collection of essays on the Battle of the Atlantic that were initially presented at the 1992 annual meeting of the North American Society for Oceanic History.

These essays are for the most part, in fact, very good. The collection is quite eclectic, covering many topics not usually found in histories of the Battle of the Atlantic. Subjects are as varied as "Mahan's Principles and the Battle of the Atlantic," by R.A. Bowling, and Lawrence Suid's "The Battle of the Atlantic in Feature Films."

Following a brief introductory overview by Dean C. Allard (former director of the Naval Historical Center), the book is divided into four sections, each consisting of five essays. Section One is entitled "The Early Years." Two of its essays discuss aspects of the Atlantic strategy and the personalities involved, from the viewpoint of both the Americans and Germans. Of course there is an essay covering codes, ciphers, and radio intelligence, by Jurgen Rohwer, a doyen of military history. There are also two pieces about Brazil, a country that deserves far more attention for its part in the battle than it has hitherto received; Theresa L. Kraus writes about the U.S. plan to secure Brazil's air bases and also that country's cooperation in defense planning for the Western Hemisphere. There is also a short piece by John F. Bratzel in which he describes Germany's failed attempts to develop intelligence and sabotage networks in Brazil.

The second section, "The 'Happy Time,'" deals with warfare in the Atlantic from the outbreak of the war up to early 1943. Most notable is Marc Milner's essay on the Royal Canadian Navy (RCN), arguing that the RCN has received little, if any, mention for its role in the Battle of the Atlantic. Continuing with this theme, Roger Sarty describes how the Royal Canadian Air Force also was a greater contributor to defeating German U-boats than is commonly believed.

"Turning the Tide," the third section, is the most "operational" portion of the book. Using numerous original documents, David Syrett, in his essay "Situation [was] Extremely Dangerous," describes the battles around three convoys—ONS 165, ONS 166, and ONS 167—in February 1943. Moving ahead two years to April and May 1945, Philip K. Lundeberg ably discusses Operation TEARDROP, in which he took part. TEARDROP was intended to thwart the threat of bombardment (which turned out to be nonexistent) of the U.S. East Coast by submarine-launched V-1s. Lundeberg survived the sinking of his ship *Frederick C. Davis* by the submarine *U-546* (the U-boat was sunk in return). In addition to his description of the operation itself, Lundeberg recounts the brutal treatment received by the U-boat's crew at the hands of naval interrogators.

The final section, "Looking Back," is something of a misnomer. Except for James E. Valle's essay, "United States Merchant Marine Casualties," the issues it deals with are really those that do not fit in elsewhere. However, I did find it interesting, perhaps because of such

unique topics as the Merchant Marine Cadet Corps, the history of the Port of New York during World War II, and Coast Guard Captains of the Port—an important job that is hardly ever noted.

To Die Gallantly is an excellent collection of top-notch essays that deal with subjects often ignored. It would be a welcome addition to anyone's maritime library.

WILLIAM T. Y'BLOOD
Air Force History Support Office
Bolling Air Force Base
Washington, D.C.

Syrett, David. *The Defeat of the German U-Boats: The Battle of the Atlantic.* Columbia: Univ. of South Carolina Press, 1994. 344pp. $35.95

Despite its subtitle, this work is limited to the critical months of the Battle of the Atlantic—April to December 1943. They mark the point when the most successful German operational and tactical strategy—the "wolfpack"—became untenable in the face of Allied countermeasures. In this book, David Syrett focuses on the factors that contributed directly to defeating wolfpacks. He covers the first years of the battle in a succinct chapter of twenty-four pages, while the last part of the war is barely mentioned.

Syrett argues that it was no single thing that defeated the U-boats but the combination of the increasing superiority of Allied intelligence, sensors, tactics, and weapons, the expanding role of air power, and of course the crippling penetration into German radio codes, that diminished the effectiveness of the U-boats.

The increasing advance of Allied technology was apparent to U-boat headquarters (BdU) by May 1943. Losses in the costly convoy battles of that month reached such levels that U-boats were redeployed away from the critical North Atlantic routes. German efforts at technical improvements were slow and usually quickly countered. However, because of BdU's failure to understand the magnitude of the problem, it attempted to maintain the attack on Allied shipping with its usual response to increased Allied pressure—a shift of operating area, this time to the central Atlantic. But when U-boats again suffered serious losses at the end of June, BdU called off all wolfpack attacks until new weapons could be introduced. However, in the face of dwindling intelligence and continuous new Allied technology, the only new schemes pushed by BdU were for new torpedoes and antiaircraft weapons, which amounted to an attempt to patch a gaping wound with a Band-Aid.

The result could have been predicted, and the narrative of the renewed convoy battles reveals few surprises. When the U-boats attempted to attack shipping once more in the central North Atlantic in the autumn of 1943, they suffered heavily while inflicting only modest losses. Most of the Allied sinkings occurred in the very first convoy battle; within days, new measures had been developed to deal with the new German weapons. The final effort to employ wolfpack tactics came later that year when the Germans attempted to attack the Gibraltar–Great

Britain routes. This effort only emphasized that the Germans had no fundamentally new ideas but could only move their old ideas from place to place, hoping to find a location where they could work. Syrett ably covers these engagements that marked the renewed German campaign and provides useful comments on the Allied success and German failure. The author points out that the continuous upgrading of Allied technology and tactics simply overwhelmed the U-boat force.

Syrett skillfully develops a coherent narrative, describing various measures used by the Allies to search and destroy U-boats. One such example is the difference between ULTRA and high-frequency direction-finding (HF/DF). ULTRA refers to the decryption of actual German radio messages, which often pinpointed the location of submarines. HF/DF allowed the source of a radio transmission from a submarine to be estimated by specially equipped ships and shore stations, but not always with enough precision to allow local naval forces to find U-boats without additional information, either from onboard sensors or other intelligence. ULTRA could be invaluable, but its worth varied upon the delay required for decryption. On the other hand, HF/DF information, though less accurate, was often sufficient to lead Allied antisubmarine forces to the general area of a U-boat. By scrupulously detailing delays in decryption and comparing all available sources of possible intelligence on a specific U-boat's location, the author provides excellent insight into how Allied navies were able to find and destroy their undersea opponents.

Closely integrated with this analysis is Syrett's careful study of the expanding role of Allied air power—both land-based and from carriers—which greatly increased the flexibility of antisubmarine forces.

Syrett argues that the German navy had no significant alternatives to its wolfpack system for attacking Allied shipping. German U-boats remained at sea, sinking ships and causing problems for Allied naval authorities, until the end of the war, but after the middle of 1943 U-boats never again sank large numbers of ships.

The author's failure to provide any significant comment on the U-boat war after that point is disappointing. Syrett himself has shown in a number of articles that the latter part of the shipping war proved to be an interesting period, marked by measure and countermeasure. Also, there is no discussion of Allied training, scientific cooperation, or research methods, and only the briefest sketch of German efforts. As a result, Syrett's comments on these subjects are deductions based on observation of engagements rather than a result of close study of actual practice. This is not to say that Syrett makes invalid points but only to suggest that this book is not a comprehensive study integrating operations with training, tactical formulation, and scientific and operational research.

Although limited in its focus, this is a very good book, having as its overall verdict that the German U-boat arm was "out thought as well as out fought by the Allies."

DOUGLAS MCLEAN
Lieutenant Commander,
Canadian Forces Maritime Command

———————————

Kelly, Mary Pat. *Proudly We Served: The
Men of the USS Mason*. Annapolis,
Md.: Naval Institute Press, 1995.
198pp. (No price given)

Mary Pat Kelly's book offers another
correction to the historic record of
African-American service in the armed
forces of the United States. In present-
ing the documented and vivid recollec-
tions of African-American participants,
Proudly We Served ranks with Paul
Stillwell's *The Golden Thirteen: Recollec-
tions of the First Black Naval Officers*,
Charles E. Francis's *The Tuskegee Air-
men: The Men Who Changed a Nation*,
and Eric Purdon's *Black Company: The
Story of Subchaser 1264* in telling the
truth about African-American service
during the Second World War.

The author, an accomplished writer
and documentary film producer,
provides a clear record of the patriotic
contributions of African-Americans
who served in the destroyer escort USS
Mason (DE 529) during World War II.
She skillfully combines recollections
and narratives into the story of how the
U.S. Navy was forced to accept citizens
of African descent into the general
ranks, how African-American men
stood ready to serve as patriots in a navy
that embraced popular racist views on
integration, how African-American
bluejackets were treated as heros in
Ireland but were refused a meal in New
Jersey, and how African-American men
contributed to the war effort at sea

during dangerous convoy duty in the
Atlantic.

In the initial chapter we meet the
surviving crew members of the USS
Mason who convey their wartime ser-
vice experiences throughout the book.
The reader is introduced to James W.
Graham, who said, "No, I'm not going
to cook for anybody or clean up behind
anybody," and then went on to become
a radioman in the *Mason*. Gordon
"Skinny" Buchanan, who was original-
ly from Harlem and attended a
predominantly white school in Long
Island, was later separated from whites
during his swearing-in ceremony.
Lorenzo DuFaz, from New Orleans,
said, "A man will go forth and defend
his home. You defend your family—
you defend your country—because
there's no other place that's home but
here in America." There was also Ar-
nold Gordon from Michigan, who
listed his ancestry as German, Irish, In-
dian, and Negro in percentage order.
He was rudely surprised to find that his
service jacket stamped with the word
"Negro" in letters that were over an
inch high.

Ultimately Kelly takes the reader to
sea aboard the *Mason*. It is through her
compelling blending of firsthand en-
counters with historical events that the
outstanding technical abilities,
patriotism, and service of the crew are
fully documented. For example, the
subject of chapter six is the participation
of USS *Mason* in Convoy 119 in August
and September 1944. During its
voyage, the convoy encountered ex-
traordinarily heavy seas from a violent
storm. The *Mason* was chosen to
shepherd a detachment of small craft

and barges assigned to the convoy, and although damaged itself with a cracked deck the *Mason* led the detachment through a treacherous channel and escorted it to safe harbor. After reaching port, its damage repaired, the *Mason* returned to escort other stranded convoy vessels to port. Commander Alfred L. Lind, the task group commander, recommended each crew member for a letter of commendation; all were withheld for no apparent reason other than the race of USS *Mason*'s crew.

The crew discuss a possible U-boat contact in another crossing. Surviving members still argue about whether they had an encounter with the "red-dog" that night in January 1945. (A *Mason* officer recalls Ed Ross saying "Boy, red-dog is really on the loose," referring to German submarines that attacked the convoys. The crew adopted the term to refer to any German submarine attacking the convoys escorted by the *Mason*.) Accounts like these are truly informative, making Kelly's *Proudly We Served* enjoyable professional reading.

In today's climate of national political debate over affirmative action, Kelly provides a historic benchmark from which to judge the progress of equal opportunity in the United States Navy. Today, we consider it almost routine to see successful African-Americans rising to new heights of authority and responsibility in the Navy. It has not always been that way, and there is ample reason to believe that the playing field in the Navy is still not completely level for all of its members. There are still isolated cases of discrimination akin to those described in *Proudly We Served* that are

experienced by men and women of color who wear the uniform.

Racism is a disease in this country, and to eliminate affirmative action in the Navy (right now congressional debates are taking place about abolishing mandated affirmative action programs) would be tantamount to eliminating the only remedy for that disease. Accurate, historical, comparative evidence of racism's prolonged existence is readily available. Perhaps not enough people have read books like *Proudly We Served*.

WILLIAM F. BUNDY
Commander, U.S. Navy, Ret.
Bristol, Rhode Island

Bauserman, John M. *The Malmédy Massacre*. Shippensburg, Pa.: White Mane, 1995. 148pp. $19.95

Few acts of Axis brutality during World War II provoked more revulsion and stronger emotion among Americans than did the massacre of nearly seventy U.S. soldiers on 17 December 1944 during the Battle of the Bulge. SS troops herded the captured soldiers into a field at a road junction near the Belgian town of Malmédy and murdered them with machine gun fire. The massacre became the stimulus for the heightened urgency surrounding the Allied mission in Europe and strengthened American determination to crush the Nazi state as quickly as possible.

The units involved were the U.S. Army's Battery B, 285th Field Artillery Observation Battalion (with assorted hangers-on) and German troops from *Kampfgruppe* (battle group) Peiper,

composed of elements from the 1st SS Panzer Division. During the first hours of the German offensive, confusion served as a catalyst for certain chance ingredients—poor judgment on the part of the Americans, cold brutality ingrained into SS troops of the advancing German spearheads, and just plain bad luck—and combined all to form a deadly prescription at an obscure Belgian crossroads.

John Bauserman offers his work as a compilation of "detailed information of the events before, during, and after the Malmédy Massacre." To support his effort, he draws from an array of primary and secondary sources, particularly the Army's Judge Advocate General records (now in the National Archives) from the 1946 Malmédy trial at Dachau, in which the German officers responsible for the murders were tried for war crimes.

Bauserman commences with a discussion of German objectives, the role of *Kampfgruppe* Peiper in the advance, and the orders issued, from Hitler down to the tactical level, especially those pertaining to the treatment of prisoners of war. The book's subsequent organization exhibits a strict dichotomy between German and American material: the German version is based on captured enemy documents and POW interrogations; the American interpretation of events is rooted in after-action reports, numerous survivor statements, personal interviews, and trial testimony. Bauserman elects not to interpret the German and American stories in light of each other but rather as separate, detailed, stand-alone accounts that chronicle the antagonists'

activities during their advance to Baugnez, the "battle" that ensued, and the American surrender and subsequent massacre. Excellent maps (with two exceptions) provide a "crime scene" feel to the book, which, when combined with the emotionally charged and devastatingly graphic individual accounts, offer an intriguing and intense reading experience. Informative appendices also enhance the work.

However, Bauserman's work falls short in several respects. It is unfortunate that more effort was not expended to meld the disparate elements of the story into a cohesive whole. Much material appears simply to have been stitched together; at times the narrative flows poorly and exhibits irritating redundancy. Inclusion of English equivalents for SS ranks in parentheses encumbers the text and is unnecessary—the same material constitutes half the book's glossary.

Bauserman's endnotes are weak and uneven. He frequently cites only a National Archives record group, without including document titles or box numbers, which considerably diminishes the value of the book as a reference tool. On *Kampfgruppe* Peiper's complex movements leading up to the massacre, Bauserman includes only two vague footnotes planted at the end of the chapter. His blanket statements regarding miscarriage of justice during the trial of the Malmédy defendants (which he mentions only in passing) and the alleged innocence of a large number of the accused stand bereft of supporting material—which is quite extraordinary, considering the controversial nature of the assertions. However, I reserve my

harshest criticism for Bauserman's use of victims' names in captions of photographs of body recovery and even autopsies. This practice should be avoided by military historians.

The value of this work stems from the substantial amount of fresh information it contains about the massacre. Its faults notwithstanding, the book does illuminate the vastness of military history's virgin prairies, which, but for the plows of energetic researchers like John Bauserman, will never yield harvests.

J. MICHAEL WENGER
Raleigh, North Carolina

Boyne, Walter J. *Clash of Wings: World War II in the Air.* New York: Simon & Schuster, 1994. 414pp. $25

The message of *Clash of Wings* is: "Year by year, as the war expanded the industrial efforts of the combatant nations, airpower became evermore important, to the point that it became a necessary condition for victory in Europe in 1944, and the decisive element in the Pacific in 1945." That is an argument that will appeal to Air Force retirees like Colonel Walter Boyne and me, but it is liable to cause others to demand qualifiers on the last clause at least. The publisher's hype is correct in the assertion that this book is the first survey (in any case one of very few) of the history of airpower in World War II. The blurb is more open to question in calling it "the definitive, comprehensive history of air power during World War II." That would be impossible in a single

volume, especially one written for a wide market.

Walter Boyne's combination of education and experience equipped him well to write a survey for the popular market and to produce a work far above the norm in terms of balance and accuracy. He was born on the eve of the Great Depression and began his twenty-five-year career as an Air Force aviator not long after the onset of the Cold War. It seems clear to me this has brought a leaven of the practical aviator not often found in this kind of a survey. Further, his long experience at the Air and Space Museum put him into a favorable position, in that it allowed him personal contact with many survivors of the events that he covers— veterans from not only the other American air forces but also from the air arms of our allies and even our enemies. Boyne's long association with the museum and his many writings about various airplanes yield a grasp of aviation technology of other services that exceeds what is expected of a writer educated in business administration, or even of most U.S. Air Force veterans. Though *Clash of Wings* was not written only for aviation buffs, it does contain more information on the design and performance of individual aircraft than is usually found in surveys.

Its focus, however, is on the operational dimension of the Second World War. It is sound on logistics and strategy, but its emphasis is on the employment of air power. It was a pleasant surprise to find in a book by an Air Force retiree that the Pacific War and naval aviation receive such thorough and accurate treatment

(doubtless a result of Boyne's experience at the Smithsonian). Although some attention is paid to the Soviet and Japanese air forces as well as to the Luftwaffe and Mussolini's air arm, Boyne looks at the Pacific War from the viewpoint of the Western Allies.

Boyne has organized his work along chronological lines and avoids the common practice of dealing first with the war against the European Axis and then flashing back to the conflict in the Pacific, as though they were different struggles entirely. He therefore captures the simultaneity absent in many other works. Boyne's writing style makes this book a pleasure to read, and it is not surprising to find that he holds orthodox opinions on many issues concerning airpower historiography. But his two appendices do not contribute much about the types of aircraft used in World War II, and instead of a bibliography he has included a list correctly labeled as "Selected Readings"—the works of the most acerbic revisionists (like Michael Sherry) being conspicuous by their absence.

Clash of Wings is a competent and well written history of World War II. For a general reader wanting a quick picture of the operational dimensions of the struggle in the air, the book is worthwhile. However, others, like the readers of the *Naval War College Review*, will find most of the material in Boyne's work already familiar. If some among them need a survey of the subject that casts a wider net and covers the nonoperational dimensions of airpower history more thoroughly and equally competently, I recommend instead R.J. Overy's *The Air War, 1939–1945*

(New York: Stein and Day, 1981). Unhappily the latter is no longer in print.

DAVID R. METS
School of Advanced Airpower Studies
Air Command and Staff College
Air University
Maxwell Air Force Base, Alabama

Gailey, Harry A. *The War in the Pacific: From Pearl Harbor to Tokyo Bay.* Novato, Calif.: Presidio, 1995. 534pp. $29.95

Harry Gailey, professor of history at San Jose State University, has drawn upon his extensive knowledge and previous writings on World War II in the Pacific to offer an important, encyclopedic, general account of the Pacific War. Although the author concentrates on the Pacific theater, he does include relevant aspects of the war in East Asia that affected such strategic decisions as the 1944 Japanese *Ichi-Go* offensive in China. The book succeeds admirably. While both expansive and accurate, it is a lively study chronicling not only the source of conflict between Japan, Britain, and the United States but also the bloody war that ensued for control of the Pacific.

While not dwelling on questionable actions of the American on-scene commanders (including MacArthur) at the outbreak of war, Gailey keenly portrays an America not ready for war in the Pacific. He then discusses the remarkable Anglo-American and ANZUS efforts to defend remaining strongholds like New Guinea and Midway after the rapid, far-reaching Japanese advances following 7 December 1941. Gailey

presents the facts and offers short, cogent analyses rather than "second guessing" of strategic or operational assessments. The facts are more vivid than fiction, and he lets the story tell itself. Thus from the comprehensive particulars of battles and events readers are able to draw their own lessons about strategy or operations. This running narrative style is a highly effective way of presenting the vast and often confusing Pacific theater.

Gailey is careful to include most battles of consequence, with distinct focus on opposed amphibious landings—most germane today for those familiar with the U.S. Navy's white paper "Forward . . . from the Sea." Another particularly pleasing feature of the book is its terse but candid appraisal of the key commanders of the theater. Relying on the author's detailed account of events and his sagacity in evaluating command actions, serious students of the Pacific campaigns can assess for themselves the decisions of Allied and Japanese theater commanders (such as MacArthur, Nimitz, and Yamamoto) and what impact they had on subordinates and on-scene commanders. *You make the call.* This approach offers a history that acknowledges the foibles or mistakes of war leaders and, most importantly, the problems that resulted, especially for those at the front. The Pacific War's famous battles in New Guinea, on Guadalcanal, and later in the Philippines, on Iwo Jima, and Okinawa are accorded treatment that reflects both their strategic and operational importance and their suffering and carnage. Gailey pays tribute to the grit of all combatants with his accurate portrayal of Pacific

hell—intemperate weather (too cold and snowy in the Aleutians, or too hot and rainy in the tropics) and austere living conditions. Capable, determined adversaries fought in a cockpit replete with extreme climates and ever-present diseases, often facing starvation at the ends of long, vulnerable supply lines.

Gailey concludes his book with an engrossing, insightful examination of the preparations for the invasion of the Japanese home islands, and of the use of the atomic bomb. In a dispassionate, reasoned manner, the author draws upon previous accounts of the many battles and campaigns of the Pacific up to 1945 to show Japanese soldiers and civilians (when present with their troops) as determined, zealous defenders—even when starving, with no sign of relief in isolated outposts, and faced with the prospect of certain death if they continued to resist. They remained resolute even in bypassed or secluded places, where the war had already come and gone—as in Bougainville, where Australian troops trying to clear the island in early 1945 met with intense resistance. One might conclude that the Japanese commitment to holding "worthless backwater" parts of the Pacific may have been a last-ditch defense by warriors who had never lost a modern war. Most interesting is Gailey's review of the U.S. decision to drop atomic bombs on Japan in light of the emperor's reluctance to intervene and end the war until mid-August 1945. Even after Hirohito's radio address submitting to the Allied terms of surrender, there were still Japanese officers reluctant to follow.

MARK HESS
Commander, U.S. Navy

Prados, John. *Combined Fleet Decoded*.
New York: Random House, 1995.
803pp. $35

John Prados's *Combined Fleet Decoded* is
a history of American naval intelligence
with respect to the Japanese navy in the
Pacific in World War II. He is the
author of the well received book *The
Soviet Estimate: U.S. Intelligence Analysis
and Soviet Strategic Forces* and the
coauthor of a volume on military his-
tory, *Valley of Decision: The Siege of Khe
Sanh*. His *Combined Fleet Decoded*
describes how the massive contribu-
tions of U.S. naval intelligence formed
the crucial edge for victory over a very
competent Japanese navy and naval air
force. Prados supports his assertions
with evidence obtained through mas-
sive research.

This work has many strong points. It
is an inclusive study of American naval
intelligence, not limited to signals intel-
ligence, that explores the contributions
of prewar work by American naval at-
taches in Japan, interrogations of
Japanese prisoners of war, photo recon-
naissance and interpretation, the cap-
ture and translation of documents by
Nisei (second-generation Japanese im-
migrants) and American spies, technical
intelligence, the use of coastwatchers,
and the development of intelligence es-
timates. (The last item is the precursor
of today's national intelligence estimate,
probably the most important document
produced by the American intelligence
system.) The author repeatedly shows
the effectiveness of American naval

intelligence, not only at Midway but in
countless other examples. For instance,
in 1942 U.S. naval intelligence knew as
early as 17 April of Japanese plans to
capture Port Moresby in early May by
way of the Coral Sea. He casts new light
on the repercussions of General
Douglas MacArthur's loss of the Philip-
pines at the beginning of the war—
namely, the island of Luzon had been a
"major center" in the U.S. effort to
break Japanese naval codes.

Combined Fleet Decoded contains ex-
cellent biographical sketches of senior
Japanese naval officers. The author also
includes a careful description of
Japanese naval intelligence and its
various weaknesses, buttressing the lat-
ter discussion with numerous examples
of failures. For example, in 1941
Japanese intelligence regarding
Australia was "thin" despite the pos-
sibility that Japan would invade it, and
Japanese intelligence officers had little
information about American carrier
groups. Japanese aerial reconnaissance
was deficient during the early part of the
war, because there were no specialized
reconnaissance planes in the naval air
force.

Although its virtues predominate,
this book does have several weaknesses.
Prados goes into too much detail at
times. For example, his description of
Admiral Isoroku Yamato's quarters on
the *Nagato* before the attack on Pearl
Harbor and what food he ate in them
adds nothing to the narrative. The maps
are not of good quality, certainly not
what one would expect. Also, Prados
occasionally goes beyond his evidence:
he writes of what was running through
the mind of Radioman Second Class

Stewart T. Faulkner when the Japanese bombed Guam 7 December 1941, but Faulkner is not listed among those whom the author interviewed. However, these minor flaws should not detract from one's appreciation of this excellent work.

This study is of considerable importance for the national security community, as a skillful integration of intelligence and military history—something of a rarity until the recent appearance of Gerhard L. Weinberg's *A World At Arms* (New York: Cambridge Univ. Press, 1994). John Prados also reminds us that force without the imaginative use of intelligence is "sterile"—a truth ignored for the most part and to its detriment by the German army when it invaded the Soviet Union in 1941 with minimal knowledge of that country. Finally, the author points out that intelligence interpretations at headquarters are often less acute than those of officers in the field. For instance, after the Doolittle raid on Tokyo the leadership of Op-20-G (Communications Security Section, U.S. Navy, Washington, D.C.) expected a retaliatory Japanese raid on the U.S. West Coast—a notion that, fortunately, Commander Joseph Rochefort in Hawaii ridiculed on the basis of the lack of Japanese support forces for such an escapade. An analogy for the Eastern front is that Soviet deceptions were taken seriously by German Army Headquarters but were quickly seen through in the field.

I strongly recommend this book to those interested in either naval intelligence or naval history. For those who insist that these two fields are inseparable, this book is a gem.

DR. KENNETH J. CAMPBELL
American Military University

Winton, John. *Ultra in the Pacific: How Breaking Japanese Codes and Ciphers Affected Naval Operations against Japan, 1941–1945.* Annapolis, Md.: Naval Institute Press, 1994. 247pp. $22.95

Declassification of voluminous U.S. government records related to cryptologic operations in World War II has led to significant revisions in our understanding of that conflict. British author John Winton has made an important contribution to the growing body of books on the subject. With excellent credentials as a historian and writer strengthened by fourteen years of service in the Royal Navy, Winton has skillfully used both American and British sources to craft a readable and persuasive case for the invaluable role of U.S. and Allied codebreakers in the sprawling naval war against Japan.

ULTRA was the cover name for the intelligence product derived from exploiting military communications through breaking codes and ciphers, in conjunction with traffic analysis, high frequency direction-finding (HFDF), and radio "fingerprinting." U.S. naval cryptologic operations were conducted by the Communications Security Group, Op-20-G—the lineage of which can be traced to the Code and Signal Section of the Office of Naval Communications, established in 1924. Winton provides excellent coverage of

the three most prominent examples of the successful use of radio intelligence, namely, the battles of the Coral Sea and Midway, and the shootdown of Admiral Yamamoto, commander in chief of the Combined Fleet. However, of perhaps greater merit is the author's detailed treatment of the grueling and strategically important Solomons campaign and the attrition of the Japanese merchant fleet. Time and again, U.S. naval forces gained from ULTRA foreknowledge of Japanese operations in the Solomons, only to see opportunities lost, primarily due to poor U.S. tactics and superior Japanese night fighting capabilities. Winton then clearly documents why the "Maru war" was one of the main reasons for the defeat of Japan: the nation was deprived of raw materials, combat troops, and supplies destined to reinforce the Solomons, New Guinea, and other island bastions. Late in the war U.S. submarines seemed so ubiquitous that the Japanese said that "one could walk from Singapore to Tokyo on U.S. periscopes." In fact, at the start of the war, the U.S. submarine force in the Pacific numbered about fifty-five boats, growing to seventy-five by 1944, a small number when considering the size of the theater. Thus Winton admirably demonstrates how ULTRA became what today is called a "force multiplier," enabling operational planners to make the best use of scarce resources to achieve impressive tactical and strategic results.

As noted, Winton's book is both readable and useful. It complements and bears favorable comparison with Dr. Edward Drea's work, *MacArthur's Ultra: Codebreaking and the War against Japan*

1942–1945 (Univ. of Kansas Press, 1992). Focusing more on land and air operations, Drea offers a more detailed look at the Allied organizations and people who produced and disseminated ULTRA intelligence. Drea provides one of the clearest explanations available on the construction of Japanese codes and ciphers. (Another strength in Drea's work not found in Winton is inclusion of numerous order-of-battle tables comparing ULTRA estimates of Japanese troop strength to the actual numbers derived from official Japanese sources. These clearly demonstrate the ability of radio intelligence to deliver an often amazingly accurate picture of what awaited U.S. forces.)

Winton's book could have been improved by more maps of the Pacific theater, detailing specific operational areas and showing the locations of the U.S. and Allied radio intelligence sites. One could get the impression that the Allies had such sites everywhere, when in fact in 1941 they had only a handful and quickly lost two (Guam and then Corregidor). A visual depiction of the "net geometry"—the transmitters (Japanese fleet units and headquarters) and the U.S. intercept sites—would add much to the reader's understanding of the subject.

In summary, this work provides an illuminating view of a fascinating topic. It is an excellent source for the general reader and provides points of departure for the more serious student of the Pacific War. In concert with Drea's book, it points toward a much needed comprehensive study of U.S. cryptologic operations, on the scale of F.H. Hinsley's magisterial five-volume work, *History of*

the Second World War, vol. III, *British Intelligence The Second World War* (Cambridge Univ. Press, 1979–1990).

ROBERT W. COSGRIFF
Commander, U.S. Navy, Ret.
American Military University

Costello, John. *Days of Infamy*. New York: Pocket Books, 1994. 448pp. $24

The flood of books and articles about the surprise attack on Pearl Harbor, i.e., the traumatic entry of the United States into the Pacific War, shows no sign of abating. Whetted by documents— particularly those on intelligence—still being grudgingly declassified in Washington and London, historians are laboring to discover what the principal players actually knew and when they knew it. Opinion is bitterly divided over whether the commanders at Pearl Harbor, Admiral Husband E. Kimmel and General Walter C. Short (both of whom received harsh official censure), or President Franklin D. Roosevelt and his closest Washington advisers, General George C. Marshall and Admiral Harold R. Stark, caused one of America's worst defeats.

One of the latest efforts to assess where the blame for Pearl Harbor lies is John Costello's *Days of Infamy*. In two of his previous works, *The Pacific War, 1941–1945* (1981) and (as coauthor) the prize-winning memoir of Rear Admiral Edwin T. Layton, *"And I Was There": Pearl Harbor and Midway—Breaking the Secrets* (1985), Costello landed squarely in the Kimmel-Short camp. Now he has broadened the scope of his inquiry to include the overall Allied strategy in the Far East, especially the destruction on 8 December at Clark Field on Luzon of nearly half the Far East Air Force, which so contributed to the fall of the Philippines. For that reason Costello makes plural the now-familiar reference to the Pearl Harbor attack—"*days* of infamy." To the leaders in Washington and London Costello adds the arrogant but indecisive commander in the Philippines, General Douglas MacArthur, as one of those most accountable for the December debacle.

Costello contends that in the summer of 1941 American strategists, enthralled by exaggerated claims for the efficacy of land-based air power, reversed their traditional strategy by shifting the entire center of gravity of Pacific defense five thousand miles westward from Hawaii. This projection of American power to the far more vulnerable Philippines led to an agreement with Britain for mutual defense in the Far East should Japan attack either power's territories. Despite the fact that American forces would not complete the necessary buildup until the spring of 1942, Roosevelt and Prime Minister Winston Churchill pursued a hard line against Japan that ill served their defense strategy when war broke out early.

Thus in Costello's view the American senior commanders relied unrealistically upon the modest number of Boeing B-17 Flying Fortress heavy bombers in the Philippines—not the Pacific Fleet's battleships and carriers based at Pearl Harbor—as their principal offensive weapon against the Japanese. For Costello this interpretation serves two purposes. First, it

reduces the strategic role and hence the responsibility of Kimmel and Short in Hawaii, and second, it highlights MacArthur's failure to use properly the valuable resources entrusted to him.

MacArthur deservedly takes his lumps for responding so slowly to the outbreak of war and losing so many aircraft to surprise attack. Yet Costello's criticisms of MacArthur's conduct in the Formosa bombing controversy reveal nothing new. To some extent, the author has set up MacArthur as a straw man to allow the Hawaiian commanders off the hook for being so surprised in their placid backwater.

Costello greatly understates the value of the Pacific Fleet as a deterrent for Japan. Of course, it is obvious in hindsight that by 1941 the old American battleships were useless for modern naval warfare, but did Kimmel or the Japanese think so? Although citing Edward S. Miller's superb *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (1991), Costello gingerly avoids the true implications of Miller's revelations about Kimmel's prewar battle plan, other than to offer vague statements about proposals for immediate attacks on Japanese bases in the Marshalls. In fact, Miller demonstrated that Kimmel (a "black-shoe" battleship man to the bottom of his soles) hoped to entice the Combined Fleet into a battleship action off Wake Island. An admiral who thought his battlewagons would prevail at sea despite superior numbers of Japanese carriers would have little worry that these selfsame flattops could threaten his supposedly well protected lair.

The strength of Costello's book is its wealth of recently released information on cryptography. He provides a cogent discussion of U.S. and British efforts to break the Japanese naval cipher JN-25b and elaborates on what both countries might have known of Japanese intentions prior to the war. Costello details the intelligence that Washington failed to provide Kimmel and that, in the author's opinion, would have led to greater vigilance at Pearl Harbor. Yet in noting that Kimmel chose not to inform his colleague Short of the imminent destruction by the Japanese of their cipher machines, Costello doubts that the general would have acted any differently had he known. Perhaps the leaders in Washington felt the same way about Kimmel.

Costello is rightly outraged at the cruel treatment of Kimmel and Short, in contrast to the heroic stature accorded to MacArthur despite his many blunders in the Philippines. MacArthur should also have been quietly relieved of command, but two wrongs do not make a right. The true secret of Pearl Harbor and the disaster of the Philippines is the gross underestimation of the Imperial Japanese Navy by all Allied commanders from Roosevelt and Churchill on down, but for which only Kimmel and Short suffered.

JOHN B. LUNDSTROM
Milwaukee Public Museum

Loxton, Bruce with Coulthard-Clark, Chris. *The Shame of Savo: The Sinking of HMAS Canberra—Anatomy of a Naval Disaster.* Sydney, Australia: Allen & Unwin, 1994. 319pp. A$34.95

During the early morning hours of 9 August 1942, a Japanese task force of surface ships entered the waters adjoining the island of Guadalcanal and inflicted a stunning defeat on the Allied naval force protecting the transports off-loading supplies to the Marines ashore. Four cruisers were lost: three American (USS *Vincennes*, *Astoria*, and *Quincy*) and one Australian (HMAS *Canberra*). Although many have studied the battle of Savo Island, there is now at last a book that looks at not only the engagement but other aspects of the incident as well. The new information includes intelligence, communications, and how Operation WATCHTOWER (the U.S. invasion of Guadalcanal) was supported by task force commanders and ships' captains.

Bruce Loxton (a former naval attaché in Washington, Director of Naval Intelligence, and student at the U.S. Naval War College and the Royal College of Defence Studies) was a midshipman on the *Canberra* when it sank. Loxton's coauthor, Chris Coulthard-Clark, has written several books on Australian defence history.

Loxton addresses the question of leadership in WATCHTOWER and examines in detail Admirals F.J. Fletcher, R.L. Ghormley, and R.K. Turner. He finds flaws in each man, but Fletcher receives most of his criticism. Loxton believes that the handling of the carrier groups left much to be desired—leaving the Marines on Guadalcanal without supplies was inexcusable, but the author criticizes Turner for the state of the surface forces covering the transports. Admiral Ghormley's command of the entire operation also receives severe scrutiny. Loxton shows that there were serious flaws in the way WATCHTOWER was handled.

Communications were a real problem. A vital comparison between how the Royal Navy and U.S. Navy directed radio traffic is a good example.

The point made so well in John Costello's study of Pearl Harbor and the relationship between the planning people under Admiral Turner and the intelligence staff in the Office of Naval Intelligence prior to Pearl Harbor is examined again in Loxton's work from the perspective of WATCHTOWER. Prewar intelligence was clouded as well by poor assessments of the Japanese. Savo and other surface engagements in the Solomons are testimony to the effective use of the night. Although aerial reconnaissance on both sides was poor, the errors committed by the Allies proved crucial. Even with questionable identification of ships, the problem was compounded by the delays and misdirection between reconnaissance and commands. The division between General MacArthur's and Admiral Ghormley's commands, as well as the air reconnaissance planning within the command, caused real problems for WATCHTOWER commanders.

For those who like to immerse themselves in the technical aspects of a battle, *The Shame of Savo* will not disappoint. There is a chapter discussing the possibility that USS *Bagley* may have torpedoed *Canberra*, with a close examination of its battle damage, including discussion on other ships as well. Questions are raised about the picket ship USS *Blue* and how the passage

of the line of Japanese cruisers could have been missed at such close quarters—closer than one remembers from previous works on Savo.

There could have been a serious problem with this book. It is obvious this is a labor of love for the ship in which Loxton learned his craft, and for an outstanding captain and crew. The loss of the *Canberra*, and some of the haphazard comments that have been made about the ship, those who sailed in it, and about the service of which it was a part, could have contributed to a desire to overlook flaws or overcompensate in analysis. I do not believe that has happened here. Loxton has done an excellent job, and many myths about the battle of Savo Island are finally laid to rest.

PETER CHARLES UNSINGER
San Jose State University

Lundstrom, John B. *The First Team and the Guadalcanal Campaign: Naval Fighter Combat from August to November 1942.* Annapolis, Md.: Naval Institute Press, 1994. 626pp. $44.95

This book completes John Lundstrom's authoritative two-volume history of the development of U.S. Navy fighter combat tactics, begun with *The First Team: Pacific Naval Air Combat from Pearl Harbor to Midway*, and it reflects the author's firm grasp of primary materials excavated in multiarchival and bilingual research. It masterfully describes and analyzes the pivotal role that U.S. Navy carrier fighting squadrons played between 7 August and 15 November 1942 supporting the first Allied amphibious offensive in the Pacific, Operation WATCHTOWER (Guadalcanal).

Lundstrom details the pioneering work of Fighting Squadron VF 5 (*Saratoga*), VF 6 (*Enterprise*), and VF 71 (*Wasp*) as they covered the landings in the Solomons on 7 and 8 August. VF 5 and VF 6 went on to fight at the battle of the Eastern Solomons on 24 August and VF 72 (*Hornet*) and VF 10 (which replaced VF 6 in *Enterprise*) at Santa Cruz on 26 October. Both were "desperate carrier slugging matches," Lundstrom observes, "whose level of ferocity was seldom equaled until the Kamikaze onslaught of 1944–1945."

After Japanese submarines sidelined *Saratoga* on 31 August and sank *Wasp* on 15 September, their respective fighting squadrons shifted ashore to ply their trade alongside Marine Corps and Army Air Force units at Henderson Field. "Nowhere else," the author writes, "did aviators fly for months from a squalid airfield perched precariously on the front lines . . . subjected to almost incessant bombing and shelling." Finally, VF 10 from the "wounded but operational" *Enterprise* helped smash the last major thrust by the Japanese to retake Guadalcanal, in mid-November.

While some individuals might complain that an author's intimate familiarity with his subject could tempt him to inundate his reader with trivia, Lundstrom smoothly integrates a wealth of human touches into his narrative. His warriors bob in their Mae Wests miles from rescue on a lonely sea or encounter potent Australian beer; some even brood over the necessity of killing.

The reassessment of the competence of Vice Admiral Frank Jack Fletcher

(the expeditionary force commander) as a combat commander begun in *The First Team* continues, as Lundstrom dissects the admiral's decision to withdraw his three carriers to the waters immediately south of Guadalcanal on 8 August. While some recent authors attribute this to cowardice, Lundstrom sifts carefully through often ignored message traffic, showing that bad communications robbed Fletcher of the important information he needed to make informed decisions. Rear Admiral Richmond K. Turner (the amphibious commander) had originally assured Fletcher that the unloading of the transports would proceed on schedule, but his later message canceling the planned withdrawal of his transports and cargo ships never reached the expeditionary force commander. Unaware of Turner's difficulties, Fletcher thus had no compunction about steaming to safer waters south of Guadalcanal (not, the author notes, as far as San Francisco). In that connection, Lundstrom shows that Fletcher, often maligned as an unimaginative surface sailor who never consulted aviators, received concurrence in the decision to withdraw temporarily from Rear Admiral Leigh Noyes, one of his task group commanders, and from Captain Dewitt C. Ramsey, *Saratoga*'s commanding officer—both experienced aviators.

Some individuals have accused Fletcher of being over-solicitous of the welfare of his three fleet carriers. Virtually unable to replenish the lost men or planes in the wake of the fierce Japanese reaction to WATCHTOWER (7 and 8 August), Fletcher was forced to contemplate the possibility of wielding a

dwindling number of Wildcat fighters to defend not only his own carriers (themselves a priceless commodity) but the expeditionary force. The "First Team" had no second team to back it up. By wisely husbanding the Pacific Fleet's carriers, Lundstrom argues persuasively, Frank Jack Fletcher quite possibly saved Guadalcanal.

Ample and clearly drawn maps and formation diagrams, as well as seldom-seen photographs, complement the text, but a "dappled" effect mars some of the pictures. Ship nomenclature purists might blanch at *Atlanta* (CL 51)–class light cruisers being consistently referred to as "AA cruisers" (they were conceived as destroyer flotilla leaders but, with their potent dual-purpose five-inch batteries, came to be employed to advantage in screening carrier task forces). Two incorrect hull numbers (probably an editorial lapse) and one misspelled ship name (*Trevor* should be *Trever*) appear in the text.

The First Team and the Guadalcanal Campaign's strengths, however, far outweigh its exceedingly minor faults, and the book commands respect for its thorough research and clear prose. It deserves a prominent place on the reading list of anyone seeking to understand the Navy's role at Guadalcanal. There is nothing that matches it.

ROBERT J. CRESSMAN
Rockville, Maryland

Ballard, Robert B. and Archbold, Rick. *The Lost Ships of Guadalcanal.* New York: Warner, 1993. 228pp. $39.95

Robert Ballard, one of the great undersea explorers of our time, in company with Rick Archbold, Canadian editor and writer, marine artist Ken Marshall, photographer Michael McCoy, and others, offers us a book which only a few years ago would have been beyond our ability to create.

To help mark the fiftieth anniversary of the unexpected and remarkable struggle for Guadalcanal in 1942, Ballard and his team journeyed to that distant jungle island. In the depths of Ironbottom Sound just off Guadalcanal they discovered, photographed, and illustrated the wrecks of a dozen warships once belonging to three blue-water navies: the United States, Australia, and Japan. Twelve is not the full number of fighting ships littering the bottom of the dreadful place; fifty is nearer the mark.

Those ships were parts of fleets that had expected to fight at horizon-spanning distances far from any substantial piece of land. But Guadalcanal is the size of Long Island, New York, and it is not the only large island in the Solomon archipelago. What brought all those ships to this place so far from the direct route between the United States and Japan? What led them to fight savage night battles at ranges of four miles, one mile, and less, mostly without the help of radar?

It all had to do with an airfield the Japanese were building from which scouts and bombers could seek out and attack U.S. convoys bound for Australia. In August 1942 the U.S. Marines seized the airfield, and for the next six months the Japanese struggled to regain it, the Americans to retain it. The warships went there to ensure that friendly troop and supply ships could reach the island with their passengers and cargo, and that the enemy's troop and supply ships could not.

By day, aircraft dominated the scene and fought many a battle, including two of the world's half-dozen carrier duels, in the long contest over whose ships would reach the contested island and whose would not. Yet between dusk and dawn most combat planes were on deck or on the ground. Until dawn, then, the struggle moved to the water's surface, where men—no one of whom could have been prepared for what he had to face—fought their brief and deadly actions, the most obvious result of which was the destruction of all those ships and the death of thousands of men. The other chief result was that the American troop and supply ships could reach the island and unload their passengers and cargo, while most of Japan's ships perished. And so the island passed into American hands. It was the first piece of Allied territory recovered from the Japanese conquerors.

When those ships sank long ago we thought of them as gone forever. However, with modern submersibles, navigational devices, and photographic gear, those sunken ships are revealed as gone only to another place. All have been transformed by battle and by time into broken likenesses of their former selves. Sometimes in the darkness of the depths it is too hard to tell which wreck was once which ship.

The team (which included Charles Haberlein, Jr., of the U.S. Naval Historical Center and Richard B. Frank, author of an excellent book on Guadalcanal) provides a brief, clear,

and accurate account of each battle, well illustrated by photographs of the men, the ships, and the battles. What puts this book in a class by itself, however, is the views of some of the surviving men, and especially of the wrecked ships, as they appear today.

FRANK UHLIG, JR.
Naval War College

Hallas, James H. *The Devil's Anvil: The Assault on Peleliu.* Westport, Conn.: Praeger, 1994. 297pp. $27.50

Names such as Guadalcanal, Tarawa, and Iwo Jima usually conjure up scenes of carnage, and levels of destruction, beyond comprehension. For some reason, perhaps because of long-awaited advances in the Philippines or events in Europe, the landing and conquest of Peleliu never received the same degree of attention. From James Hallas's history, one can only conclude that the battle was as frightful as any of the Pacific campaigns and deserves our attention and study.

The Devil's Anvil covers the complete story of the landing on Peleliu, from the initial planning through the mop-up and occupation. While inspiration for the seizure of the Palaus sprang from the perceived need to protect the reconquest of the Philippines and had both MacArthur's and Nimitz's approval, the action was not unanimously supported. As Hallas notes, it was surprising and worrisome that Admiral William ("Bull") Halsey, commander of the Western Pacific Task Forces and an aggressive and hard-driving fighter, objected to the proposed

landing, insisting that there would be a "prohibitive price in casualties." Halsey believed that Ulithi, with its deep-water harbor, was the only island of the Palau group worth seizing. His objections noted, planning for landing the 1st Marine Division went ahead. In contrast to Halsey, General William Rupertus, commander of the 1st Marine Division, predicted that the campaign would be "rough but fast." He was woefully mistaken. It took the veterans of Guadalcanal and Cape Gloucester over two months to secure that small piece of coral.

The bulk of this work is a day-by-day account of the battle for Peleliu from the vantage point of private infantrymen. Extensive interviews with survivors provided Hallas with a huge amount of graphic detail, which he skillfully uses to bring the horror of island combat home to the reader. No one could read about Company K holding "the Point" through sheer willpower, or assault after assault by exhausted troops on Bloody Nose Ridge and the Umurbrogel, and not be deeply affected. Pages of ghastly, poignant vignettes have an almost numbing effect. That anyone survived is astonishing.

Central to the story is the 1st Marine Regiment, commanded by the legendary Lewis B. ("Chesty") Puller, who had joined the Corps in 1918, earned three Navy Crosses, and had a reputation as a fearless warrior. Yet he was considerably less sanguine than his commanding officer, General Rupertus, on the prospects for a quick campaign. The numbers alone gave him pause: roughly 10,500 Japanese defenders, many of them elite Imperial troops, would face

28,000 Marines, of which only 9,000 were infantrymen—far from the optimum three-to-one ratio for a successful landing. It was Puller's men who landed on White Beach 1 and 2, probably the most heavily defended part of the coast. Puller fought his troops to the utmost, insisting to the high command that they only needed a bit more time and another assault to achieve their objectives. Even when his troops had sustained crippling casualties Puller refused reinforcement. One wonders if the loss of his brother, Sam, on Guam and the pain from shrapnel left in his leg since Guadalcanal may have colored his judgment. Some of his decisions were more reminiscent of the battlefields of France in 1915 than of the Pacific campaigns of the 1940s.

At the same time, the reader might have benefited from an expanded examination of Rupertus's role in the operation. Having broken his ankle in practice maneuvers prior to the landing, he was forced to remain aboard USS *DuPage*. While Hallas deals to some extent with the effect of Rupertus's restricted participation in the early hours of the landing, a more thorough examination of his command activity is in order, as well as of his subsequent actions ashore and the performance of his staff.

This minor suggestion notwithstanding, *The Devil's Anvil* is an outstanding study of an often neglected element of the Pacific War, and it is a substantial contribution to the body of literature on the conflict.

ANNE CIPRIANO VENZON
Darnestown, Maryland

Foster, Simon. *Okinawa 1945*. London: Arms and Armour, 1995. 192pp. $24.95

The current popularity of Second World War histories brought about by the fiftieth-anniversary remembrances has unfortunately cluttered the shelves with weak offerings, new titles rushed to market to cash in while the topic is hot. *Okinawa 1945* is long on detail (much of questionable accuracy), short on analysis, and offers little new insight into the bloodiest campaign of the Pacific War.

This work recounts primarily the war at sea, with just enough description of the operations ashore to keep clear the context of the overall campaign. Foster's "pro-Navy" view gets in the way of a balanced assessment of the importance of the ground war versus the naval war. He contends that the success of the Okinawa operation hinged upon the Americans retaining "command of the sea," while the ground war, although bitterly fought, "was a foregone conclusion." Foster implies that the war at sea was a near-run thing. In fact, however, after the beatings taken at the "Marianas Turkey Shoot" and later in the defense of the Philippines, the Imperial Japanese Navy was in no shape to contest American dominance. The massed suicide attacks by Japanese land-based air inflicted a horrible toll on the ships screening the island, but there is no evidence, nor does Foster offer any, that the American high command considered abandoning the waters around Okinawa because of the *Kikusui* ("Floating Chrysanthemum") attacks.

Okinawa 1945 is uneven. Sometimes it is enjoyable and entertaining, yet a turn of the page can present a seemingly endless stretch of colorless prose of the kind one expects in a Navy "oporder." This reviewer was prepared to attribute the annoying and persistent typographical errors (e.g., "Admiral Kummel" instead of "Kimmel") to poor editing until the next to the last page of the book. There I was surprised to discover that "on 6 September the Americans dropped the first A-bomb on Hiroshima; on 7 September the Soviet Union declared war on Japan; and on 9 September the second A-bomb was dropped on Nagasaki." The actual dates for these events were 6, 8, and 9 August respectively, and this final bit of sloppiness caused me to question the blizzard of statistics Foster offers. It was time to cross-check *Okinawa 1945* against Samuel Eliot Morison's *History of United States Naval Operations in World War II: Victory in the Pacific 1945.* I am a great admirer of Morison's history of the war, and apparently so is Simon Foster. The author's account of the *Kikusui* attacks reads remarkably like Morison's—occasionally word for word. Although Foster does cite several long passages from Morison, he needs to be more forthcoming as to his reliance upon Morison's scholarship.

I was unable to locate any information about Simon Foster, the author, in either *Contemporary Authors* or the *Book Review Digest.* Also, the editors of this journal and I were unsuccessful in obtaining a biography of him from the book's publisher.

Save yourself the hefty price tag of this book and go to the library or your favorite used book store and get a copy of Morison's work. It is a more readable and engaging account of the naval action around Okinawa. For an excellent depiction of the battle ashore, try James and William Belote's *Typhoon of Steel: The Battle for Okinawa,* or William Manchester's *Goodbye Darkness: A Memoir of the Pacific War*—a compelling, personal description of the fierce fighting on Okinawa from a Marine infantryman's point of view.

JAMES J. O'ROURKE
Commander, U.S. Navy
Naval War College

Bruce, R.W. and Leonard, C. R. *Crommelin's Thunderbirds: Air Group 12 Strikes the Heart of Japan.* Annapolis, Md.: Naval Institute Press, 1994. 228pp. $26.95

This work is a narrative history of the activation, training, and combat deployment of CAG (Carrier Air Group) 12 in USS *Randolph* (CV 15) during the waning months of World War II. The group adopted its nickname from its first "skipper," Commander Charles Crommelin; the three (later four) assigned squadrons all adopted emblems employing a stylized southwestern Indian thunderbird. Bruce and Leonard were assigned to Fighting Squadron 12 and Fighting-Bombing Squadron 12 respectively.

They wrote this book as a result of their 1987 air group reunion in Charleston, South Carolina, onboard the USS *Yorktown,* in order to preserve the memories of air wing personnel for future generations. It is a

compilation of interviews and written histories, and it includes many photographs provided by the air group photographer. This approach is both the strength and weakness of the book. On one hand, it is a very personal recollection of the triumphs, tragedies, and moments of humor and sheer terror shared by the men of CAG 12. On the other, portions of the narrative are disjointed, particularly in the early chapters, where the authors switch back and forth between air group training, stage-setting events in the Pacific theater, and historical background material. There is also a minor problem with technical errors, such as repeated references to the "Army Air Corps"—the Army's air arm was formally renamed the Army Air Forces on 20 June 1941.

Minor confusion and technical glitches aside, *Thunderbirds* is an excellent work. This is the carrier war in the Pacific as fought by the men at the tip of the spear. The sources of its personal material range from the leaders to the air crews and from support personnel to the flight deck crews, both officer and enlisted. The authors cover adequately all aspects of air group operations in the offense and defense, including fighter, fighter-bomber, torpedo, and scout bomber activities. They have also included excellent coverage of the ship's company of the *Randolph* and its role in the carrier war.

Bruce and Leonard describe the melding of individuals, aircraft, and warship into a cohesive fighting unit. A recurring theme is the importance of leadership, commitment, teamwork, training, and, above all else, communication up and down the chain of

command. From their initial workups, the CAG 12 and CV 15 team moved across the Pacific in support of theater operations in the fight against a determined enemy who had resorted to kamikaze attacks. The group's last operations were over Japan. CAG 12 returned to the United States and was dissolved in July 1945—one month short of final victory.

Bruce and Leonard have succeeded in their effort to preserve the memory of air wing crews. *Thunderbirds* is good reading and a good source on the personnel who carried out national security policy in 1945.

MARK MORGAN
Scranton, Pennsylvania

Kernan, Alvin. *Crossing the Line: A Bluejacket's World War II Odyssey.* Annapolis, Md.: Naval Institute Press, 1994. 192pp. $21.95

McBride, William M., ed. *Goodnight Officially: The Pacific War Letters of a Destroyer Sailor.* Boulder, Colo.: Westview, 1994. 307pp. $24.95

It is striking how different apparently similar books can be. The two under review are both accounts not of the Second World War itself but of the experience of that war by an enlisted—but essentially civilian—narrator. Both authors served at sea in the Pacific theater and are remarkably articulate. The differences, however, become immediately apparent: Alvin Kernan was an "airedale," an ordnanceman turned torpedo-bomber aircrewman, while Orville Raines, whose letters are reproduced in *Goodnight Officially*, was

a destroyer sailor, Yeoman Second Class. A deeper difference can be found in their styles; Kernan became an academic in his postwar career, while Raines, a prewar newspaperman, brought his writing ability to sea with him, where he died.

Alvin (now Dr.) Kernan, formerly of Yale and Princeton and now of the Andrew W. Mellon Foundation, set down his reminiscences fifty years after the fact, originally for his children. He joined the Navy not at Pearl Harbor but the year before, and not to fight the Japanese but to escape Wyoming. He served the entire war, through major battles, frequent air combat, and the sinking of the USS *Hornet* (CV 8), all without a scratch. He witnessed events of military note: early underway replenishments; pioneering nighttime radar-controlled fighter interceptions (the first?) and carrier landings; the death of the famous Edward H. ("Butch") O'Hare; the failures of American torpedoes; and the Doolittle Raid (an enthusiastic gambler, Kernan had money down that less than half the B-25s would get safely off the deck.) He recalls some intriguing oddities, among them that the "old Navy" paid its men in $2 bills; that all the interior paint of his ships was removed (Seaman Kernan had to chip paint off two successive fleet aircraft carriers); and that the crypt-analytic breakthrough prior to Midway was widely known in the fleet's messdecks. Kernan heard "Bull" Halsey's voice "thundering away" in the flag spaces of the *Enterprise* and befriended Petty Officer "Dick" Boone, later of television's "Have Gun, Will Travel." Rather surprising at first

is the amount of time Kernan found himself at organizational loose ends: at one point, training in the Chicago area, he took factory jobs to earn extra money.

The fundamental theme of *Crossing the Line*, evoked either directly or through narration, is emotion (to which critic and wartime Royal Navy air controller Lawrence Stone probably refers in the foreword: "Yes, this is *exactly* how it was.") Kernan's feelings were mixed—largely positive about the Navy as a whole, wry concerning its weaponry, affectionate toward fleet carriers; negative about officers, respectful toward the enemy, and contemptuous of the small escort carriers.

Two affective aspects of wartime life arise especially: constant fear born of the unceasing, almost banal, presence of death; and the sense that in combat every man on board is *fighting*, even those only standing and waiting (in Kernan's first battle, with a runaway bomb on a dolly)—but determinedly not running.

These concerns are direct echoes of *Goodnight Officially*, the second book under review. Its editor, William Mc-Bride, a professor of history at James Madison University, was for three years a U.S. naval officer on board a ship which, it turned out, was named for the gunnery officer of Orville Raines's USS *Howorth* (DD 592). Research into the career of that officer (who died in the same kamikaze attack off Okinawa that killed Raines) led McBride to Raines's many and lengthy letters, all 1944–1945. He found these letters to be (perhaps owing to their writer's journalism background, access to a typewriter, and

general quarters station on the bridge) lively and clear, informed and informative, unselfconscious, and revealing in many ways.

Through them and McBride's commentary we follow *Howorth* through workups, convoy duty, the Leyte campaign, Lingayen Gulf, Iwo Jima, and finally to Okinawa. More precisely, as with Kernan, we trace Raines's state of mind, his attitudes towards his ship, his shipmates, his officers, the Navy (all rather bleaker than Kernan's), the Marines ashore, the Japanese, combat and fear, the war, and—most especially—his wife in Texas (whom he wished good night "officially" every evening, Dallas time). The editor has excised the "most personal" material (much that stands is personal enough), but he has not tidied up what remains: "I only wish I were in close enough to see their bodies and parts of bodies go sky high when our shells hit."

Though both books are made accessible to general readers, they are best approached with prior familiarity with the events; Kernan, as he emphasizes, was not writing history, and certainly Raines was not. *Crossing the Line*, to be sure, could have used one more copyediting "pass." (Did *Nassau* have a ship's store or not? How could Kernan

have heard his squadron-mate shouting from "high above" through a porthole—which had all been welded shut—to him in the water as the carrier "went tearing by"?). Perhaps the author, who emerges as quite a willful man, would not have it. Editor McBride, on the other hand, is overprominent in *Goodnight Officially*, rather at the expense of Raines; he is quick to make elaborate social-scientific generalizations, offer magisterial (mostly dismissive) assessments of strategy, and indulge an acknowledged peevishness about Navy life. He even (as we learn obliquely) acted as an advocate at the Navy Department for *Howorth* survivors. Both books, however, are attractively produced, having in Kernan's case remarkable photographs and in McBride's helpful maps; both are engaging and enjoyable; and they are useful, certainly for readers grounded in the history. Such books cannot of themselves give a complete grasp of the events, but they do contribute uniquely to a fuller, even empathetic, understanding of them.

PELHAM G. BOYER
Naval War College

Ψ

World War II: 50 Years Astern
— Recent Books —

Crane, Conrad. *Bombs, Cities & Civilians: American Airpower Strategy in World War II.* **Lawrence: Univ. Press of Kansas, 1993. 208pp. $29.95**
The debate over the value and consequences of strategic air campaigns has continued since the Strategic Bombing Survey of 1946. Conrad Crane, associate professor of military history at West Point, examines the attitudes and targeting tactics of commanders and airmen during World War II. He finds that targeting decisions were more often made in-theater than in Washington and that in Europe targeting was responsive to the doctrinal requirement to minimize civilian impact. Indeed, Crane suggests that the European military leaders were more sensitive to this than was the national leadership in Washington. The Pacific theater was another story, however; General Curtis LeMay believed fire-bombing cities to be a satisfactory tactic. In a short concluding chapter, the author looks at Korea, Vietnam, and Desert Storm. In each case, strategic bombing was conducted with collateral damage to civilian populations and infrastructure, but Crane finds that it had little effect on the outcome; he does not, however, suggest that these points are correlated.

Dorrance, William H. *Fort Kamehameha: The Story of the Harbor Defenses of Pearl Harbor.* **Shippensburg, Pa.: White Mane, 1993. 162pp. $22.50**
The first of Pearl Harbor's formidable coastal defenses, a twin battery of twelve-inch disappearing guns at Fort Kamehameha, was not completed until 1911. By 1916 eight twelve-inch mortars and eight smaller guns had been added to the defenses. However, because the weapons on new warships could outrange them, within only eight years every gun had either been discarded or reduced to inactivity. By 1941 their place had been taken by new guns, all capable of reaching farther than any guns afloat. When, finally, an enemy came, he came in airplanes launched from carriers far beyond the reach of any gun. Still, the Army placed more guns, many of them old naval weapons, along the coast. Yet the U. S. victories at distant Midway and Guadalcanal meant that thereafter it was Japanese bases, rather than American, that would be in danger of attack. So, without firing even once at an enemy, the coastal batteries lost their importance. Did they help to forestall any attempt at invasion by their mere presence? It is hard to say. Nonetheless, all that remains of them is their huge, bare, concrete emplacements. This is an account without a climax, but the author tells it well.

Ethell, Jeffery and Price, Alfred. *World War II Fighting Jets.* **Annapolis, Md.: Naval Institute Press, 1994. 211pp. $39.95**

This aviation history covers the nine jet and rocket-propelled aircraft developed (and in most cases deployed) during World War II. It is an expansion of Ethell and Price's 1979 publication *The German Jets in Combat*, which covered the Messerschmitt Me-262, Me-163, and the Arado Ar-234. *Fighting Jets* adds two German aircraft (Heinkel He-162 and Bachem Ba-349) and their counterparts from England (Gloster Meteor), the United States (Lockheed P-80A and Ryan FR-1), and Japan (Yokosuka Ohka). Both authors are aviators in their own right, well known in the aviation history community, and highly qualified to write on the subject. The book's format precludes exhaustive coverage of each aircraft, but the material is reasonably concise and detailed. The book excels in its insightful look into political and industrial maneuvering and infighting. Some of the material is well known, such as battles between Hitler, his commanders, and the German aircraft industry over the proper employment of the Me-262. But equally important are the lesser known aspects, such as the dispute between the Japanese hierarchy and combat commanders about the use of suicide pilots. This is a good study of the balance between political, military, and technological needs. It is a well written history of late World War II aviation.

✳

Winners of the
Hugh G. Nott Prize
for 1994

The President of the Naval War College has announced the winners of prizes for the finest articles (less those on historical subjects) appearing in the *Naval War College Review* in 1994:

• First Prize ($500), Lieutenant Commander Wayne G. Shear, Jr., CEC, U.S. Navy, for "The Drug War: Applying the Lessons of Vietnam" (Summer);

• Second Prize ($300), A. James Melnick, of the Defense Intelligence Agency, for "Beyond the Economy: Internal Factors Affecting the Future of the Russian Military" (Summer); and,

• Third Prize ($200), Dr. Robert M. Soofer, of the Ballistic Missile Defense Organization in Washington, D.C., for "Ballistic Missile Defense from the Sea" (Spring).

This award is given in memory of the late Captain Hugh G. Nott, U.S. Navy, who made major contributions over a period of ten years to the professional life of the Naval War College.

Winners of the
Edward S. Miller History Prize
for 1994

Through the generosity of the distinguished historian Edward S. Miller, the President of the Naval War College has awarded prizes to authors of the finest articles on historical subjects appearing in the *Naval War College Review* in 1994.

The winner ($700) is Dr. Thomas Hone, of the George C. Marshall Center in Garmisch, Germany, for "Naval Reconstitution, Surge, and Mobilization: Once and Future" (Summer).

The runner-up ($300) is Dr. James Pritchard, of Queen's University in Kingston, Ontario, Canada, for "French Strategy and the American Revolution: A Reappraisal" (Autumn).

—————— Ψ ——————