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Our cover: An old picture of an old ship, the U.S.S. *Barney* (DDG 6), commissioned in 1962 and photographed at sea in 1977. The photograph reminds us that, whether in the Philippine, the Arabian, or the Norwegian Sea, the ordinary work of men in ships is usually uncomfortable, often difficult, and sometimes dangerous. Official U.S. Navy photograph.

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President's Notes

The Dialectics of Disillusion or Can the Soviet Union Really Reform?

We often express our consensus as an American polity with quotations, slogans or aphorisms. For example, all of our coins are engraved with the aphorisms "Liberty," "E Pluribus Unum," and "In God We Trust." *Forbes* magazine devotes its final page to aphorisms and quotations, and John Bartlett is famous for a book of them. We are further inclined to accept these slogans, trademarks or aphorisms as statements of popular belief or accepted truths. Typical Americans are not likely to examine such aphorisms under the microscope of conscience. One of my favorites for reflection is the statement on the New Hampshire license plate: "Live Free or Die."

Recently I encountered the work of a French Renaissance political theorist, Étienne de La Boétie, 1530-1563. Boétie wrote that "all servitude is voluntary, and the slave is more despicable than the tyrant is hateful . . . liberty is the only joy upon which men do not seem to insist . . . resolve to serve no more, and you are at once freed."

Admiral Kurth spent 17 years in and out of the Soviet Union, including tours as Naval Attaché (1975-1977) and Defense Attaché (1985-1987). He is fluent in Russian and has a Ph.D. from Harvard in government (Soviet Studies).

It occurs to me that intellectuals may be more devoted to aphorisms than ordinary folks. And ordinary folks in the course of an ordinary day may not recognize the penetrating truth of what Boétie had to say about accommodating tyranny.

Not long ago in Newport I saw a man in a car that carried those New Hampshire license plates, reminders of the political circumstances which might give him cause to consider dying. As he drove he flipped a gum wrapper out of the open window, and I could not help but contrast the nature of that unconcerned act with the principle espoused on his license plates. The point for each one of us is, when do we convert ideas to action?

In this context, consider current circumstances in the Soviet Union. Does the conversion from perception to correction, from slogan to action happen differently in the mind of a Russian inside *his* or *her* political system than it does in the mind of an American within our system? When does the dark threat of loss or the sunny promise of betterment move thought to potential action?

Take for example the mental process of the average Russian in places like Irkutsk, Yakutsk, Dushanbe or Minsk: is disillusion with the Soviet social system a burning issue in the breast of a Tadjik or a Siberian, and is it capable of moving average Russians to want reform? That would be reform from the bottom up. Is the Soviet Communist Party leadership capable of providing real reform? That would be reform from the top down. Just how is the current phenomenon of reform occurring in the Soviet Union? It appears to be from the top down. Does exhortation from the party leaders in Moscow for such reform touch a Russian who may be driving his Zhiguli in Omsk under a street banner proclaiming *perestroika* as he flips a candy wrapper out the window?

Mikhail Gorbachev has said that a revolution no less significant than that which occurred in 1917 must occur in the Soviet Union. He has said from the beginning that there must be *novoye muishleniye*, or new thinking, which he describes as a complete break with the mind-sets of recent decades. But he is careful not to let that new thinking exclude Leninism, and he is very careful to preserve the legitimacy of the party's power and the Soviet socialist form of government. Clearly, he is placing the new revolution in an unrevolutionary straight jacket. A basic tenet of the Marxist-Leninist ideology, which he apparently seeks to preserve, is that a ruling class or group does not yield its power voluntarily. Power is seized by force and by a proletariat which has cast off its chains.

Gorbachev seems aware of the fact that the degree of reform he wants demands some kind of shift in power. He has said that previous attempts at economic reform failed because they were not accompanied by political reform. By political reform he must mean shifts in the distribution of political power. In fact *he* is at the head of the ruling class in his own power structure and, logically, his personal power likely would be the first target

for change. So on the one hand, his own Marxist-Leninist ideology tells him that he and his type will *not* yield power, and, on the other hand, he seems to be saying that they *must* if the country is to avoid an economic crisis.

Is Gorbachev looking for a compromise measure so that, like Janus, the god with two faces, he can look toward both objectives? Perhaps that is what he sought from the party conference in June which gave him a Supreme Soviet which promises to look a little more like a parliament. The couference also gave him a new, more legitimate, apparently more empowered and more parliamentarily selected chairman, the executive position which he had wanted to call "The President."

And, apparently, he will take that position for himself.

If all of this is the quality of Gorbachev's new thinking, it is neither new nor very exciting. It certainly is not revolutionary, but is it being made to *look* revolutionary? Vladimir Tismaneanu, in a recent article in *Society* (May-June 1988, p. 9) wrote:

"Communist regimes are more than ever ideologically vulnerable. Since ideology and power are inextricably linked in the nature of communist systems, increased social conflicts should be expected in the countries of the Soviet Empire. Against the oppositional actions and programs, the rulers cannot offer more than promises impossible to be fulfilled. Whenever this tactic does not work, they resort to naked violence to mute their critics."*

In Tismaneanu's terms, the "oppositional actions and programs" I am talking about are apathetic "workers" who do not work and the stratagems of bureaucrats who drag their feet on *perestroika*. Is Gorbachev offering empty promises? If they do prove empty, should we brace for violence when they fail? If so, what form might the violence take? Remember, it was Yegor Ligachev, the second most powerful man in the country, who, at the party conference, cautioned Gorbachev not to enter a room unless he knew the way out again.

Glasnost and democratization are the programs by which Gorbachev hopes to raise the political consciousness of the masses, get the people involved, convince them, and motivate them to produce the economic goals of *perestroika* to avoid the severe economic crisis, on the threshold of which, he says, the country now stands.

The Russian driver in Omsk, tossing candy wrappers out of his Zhiguli as he passes the banners with slogans about *perestroika*, may be like the New Hampshire driver who does not see any signs of tyranny that might make him think of dying for his freedom. The Russian may not see anything that Gorbachev promises to be so much better than what he has that he is influenced to work harder.

*Part of this essay's title is based on Mr. Tismaneanu's article.

Gorbachev has taken away the vodka; he wants more hours from the factory worker at lower piece-rates in order to increase production and get the country moving; a worker now can be fired and the State is promising to tolerate unemployment. But there is not an increase in consumer goods on the shelves. The last sector to be touched has been agriculture. Apparently there is less meat now rather than more, according to complaints at the party conference. Just *whose* revolution is this?

I think we Americans are in danger of developing a great misimpression. *Glasnost* is definitely out in front, and I have witnessed that fact on Soviet television, in Soviet print media and in the Soviet theaters, as well as on U.S. television programs and in the U.S. print media. However, *glasnost* is more the arena of the Soviet intellectuals than that of the Soviet workers. And like their forebears, the Russian intelligentsia, Soviet intellectuals are largely alienated from the Soviet workers out in the provinces.

The reforming Soviet socialist world of Gorbachev is new and exciting for Soviet intellectuals but appears to be humdrum for Soviet workers. Just as America could never defend its freedom unless our New Hampshire driver felt his freedom so threatened that he marched with his license plate on his chest rather than on his car bumper, so Gorbachev is unlikely to achieve *perestroika* until Soviet workers see a clear chance for better living standards. They have had ample experience with promises—and for that matter, with political violence. Gorbachev must enthuse the workers as he has the intellectuals. Thus far, the great kinetic energy of *glasnost*, which I think we Americans feel and which I fear may mislead our analysis, offers no direct prediction of success for *perestroika* and democratization.

Were he with us today, Boétie might want to condemn the Russian common folks, especially under Stalinism, for failing to resolve to serve no more. He might even judge them as being more despicable than the tyrant was hateful. But the common Russians would likely be wary of an intellectual like Boétie, for they think that the ink in his pen comes cheaply. They are wary because they live in a society whose Marxist-Leninist ideology came from a small minority of intellectuals. It promised them bread, land, and political power and then turned on them, like so many revolutions that eat their children. They will be wary, for—somewhat like my New Hampshire driver—*perestroika* has not yet touched what they hold dear.

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Systematic Analysis of Defense Issues: The Role of the Congress

Alice M. Rivlin

In a representative democracy, national security decisions are necessarily political. The subject of this paper is the role of systematic analysis in raising the level of that political debate, especially in the Congress. I will focus first on what systematic analysis means, or rather, what it ought to mean. Briefly, I believe that to advance informed debate on national security issues we need something more than sophisticated models relevant to narrow sets of choices involving weapons systems. What is needed are tools for thinking clearly about alternative futures for the United States, its allies, and enemies; about the national security policies that might be appropriate to these futures; and about the consequences and costs of these policies.

I will then concentrate on the role of the Congress in debating and deciding future national security policies. I believe it is in the national interest to involve the Congress, as well as the public and the news media, much more heavily than we do now, in informed discussions of national security objectives and broad policy options and, if possible, reduce Congressional concerns with narrower issues of implementation.

To some members of the national security establishment, more Congressional involvement on any level is a frightening prospect. Indeed, some appear more willing to risk their lives to bring about free elections in distant places than to deal with their own freely elected representatives in the halls of Congress.

This wariness of Congress is not surprising. We live in an incredibly dangerous and rapidly changing world. Those who know the most about the military dangers worry, understandably, that the public and their elected representatives are too unsophisticated, too shortsighted, or too self-centered to understand the nature of the threats and to make the sacrifices necessary to meet them. But this wariness is also self-defeating. It leads to

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Congressional frustration and ultimately to a lack of public trust in those charged with the defense of the Nation. It leads to stop-and-go and feast-or-famine budgeting, to micromanagement, to military decisions made on grounds of local or regional economic gain and, in the end, to superficial support for national security policies that is liable to crumble at crucial times.

In a word, the only hope for strong, sensible national security policies in modern America is *glasnost*. The American national security establishment must be willing to engage patiently in public education and discuss, openly, major national security issues, uncertainties, and alternative postures. Only if there is real dialogue, complete with a willingness to listen as well as to preach, can the national security establishment hope to build the public understanding and depth of support needed for effective defense.

Systematic Analysis in Perspective

In the 1980s, no one harbors the illusion that systematic analysis is a magic tool for decision making that can substitute for judgment, experience, or common sense. No one thinks that systematic analysis can eliminate risk, uncertainty, or the necessity for guesswork. We all have learned that models are only as good as their assumptions, and that assumptions about the future are inherently and irredeemably uncertain. We all know that hard-to-quantify factors such as dedication, *esprit de corps*, and morale are crucial issues in determining the outcome of any process that involves people. We have learned, sometimes to our sorrow, that minor misspecifications can lead to major errors, especially if the planning period is long. We realize that information is always imperfect and the cost of improving it is often high. Indeed, most of us probably have seen analyses that, underneath the fancy computer models and multicolor graphics, were fundamentally so bad that using them to decide anything was patently inferior to the old-fashioned gut reaction or random draw.

Moreover, there are reasons why it is often far more difficult to apply the tools of systematic decision making in the national security arena than in private or public nondefense decisions. The level of risk and uncertainty surrounding military choices is often especially high. The typical civilian decision maker is plagued with the usual uncertainties about cost, performance, and the impact of outside forces. For the military there must be added the acute difficulties of dealing with rapidly advancing and unpredictable technologies, requirements that weapons systems and organizations perform almost infinitely varied tasks under highly unpredictable conditions, limited opportunities for realistic experimentation, and the necessity of guessing the intentions and motivations of enemies (and allies) with cultures and political structures totally unlike our own. Moreover, it can be argued that the Navy presents

the most difficult decisionmaking problems of all because its missions are so varied and its weapons systems so long-lasting.

In this context, the most that can be said for the various tools of systematic analysis is that, if used intelligently, they offer some hope of more manageable decision making. They provide a framework for identifying key assumptions, for sorting out the known from the unknown, for differentiating the quantifiable from the unquantifiable, and for figuring out what is the most efficient or effective plan of action under certain conditions or in the context of a particular scenario about the future. The tools of systematic analysis do not make complex problems easier, but they do make it possible for the human brain to think about them in a more organized way—and that is a major contribution.

The risks stem from the fact that the tools are such fun. There is always the danger that very bright, ingenious people faced with a large problem will become fascinated by a small piece of it that may be susceptible to modeling and quantification, immerse themselves in refining and elaborating fancy apparatus for solving the subproblem, and forget the larger one all together. This is dangerous for several reasons. It may focus scarce talent on seeking the right answers to relatively unimportant questions. It may actually lead to wrong decisions because no one notices that the basic assumptions being used to simplify the solution to the subproblem are quite inappropriate in the real world, or because the larger context has, while painstaking ingenuity was being applied to solution of the subproblem, totally changed. In either case, systems analysis is likely to reinforce the tendency of professional experts to develop special languages for communicating with each other, thereby separating themselves from those outside their immediate circle.

The problem of experts knowing more and more about less and less and losing the ability to communicate with ordinary mortals is certainly not attributable to systems analysis. The problem exists in law, medicine, music, and other fields not amenable to systems analysis. But the use of systems analysis in the national security area, together with rapid advances in weapons technology, has reinforced the mystique of the Defense Establishment.

This widening gulf between the national security experts and the public at large—including the informed public interested in policy issues—is one of the major impediments to the formation of well-articulated national security policies that command broad support. The experts, immersed in the technical details of military balance between the United States and the Soviet Union, tend to focus on the short run and have little interest in the kind of relationship the two powers ought to be trying to achieve in the long run. The public, on the other hand, has little knowledge of, and less interest in, such esoteric questions as stability conditions and verification

but has a high level of concern about how the two powers will manage their relationship in the years to come. Bringing these two conversations together is the objective of a major current project designed to determine how the public perceives alternative futures for the U.S.-Soviet relationship and how these views change in response to information and opportunities to discuss alternative futures and their implications.

While the gulf between experts and the public may be no greater in national security than in other areas, it matters more because effective national security policy depends on sustained public support and willingness to sacrifice. If the public fails to understand, for instance, international financial policies of the Government, these policies may, nevertheless, be relatively easy to implement. But if the public does not have a clear view of U.S. defense posture and the reasons for it, its willingness to pay the taxes necessary to support modern forces, to serve in the military, and to make other sacrifices may be either low or subject to rapid erratic swings. If few people understand, for example, the strategic rationale for an MX missile or the stability argument for its mobility, it may be difficult to generate substantial political support for running it around the tracks in anybody's backyard. Similarly, if scarcely anyone understands the reasoning behind rapid modernization of conventional forces, the increased funding voted at the request of a popular President may disappear when public attention is drawn by the press to expensive coffeepots and toilet seats.

The Dialogue between the Administration and Congress

Let us assume for the sake of argument that an ideal administration arrives at its defense budget proposals in the most thoughtful way possible. Present and future threats to U.S. security are thoroughly assessed and periodically reevaluated. The tendency to refight the last war is resisted, although lessons of the past are, of course, thoroughly learned. Long-range and intermediate-range plans are argued out, then translated into budget requests. Interservice rivalry is kept at the level needed to maintain high morale but never results in duplication of weapons or unworkable chains of command. Finally, a lean, efficient industrial base competes to furnish weapons and other goods and services on schedule and at minimum cost.

Having achieved all that, how should this ideal administration go about selling the defense budget to Congress? One model (let's call it the Board of Directors model) assumes that Congress is primarily composed of intelligent, well-informed citizens with the best interests of the country at heart, capable of understanding the main thrust of arguments about defense postures and the force structures necessary to support them, eager to get the most for the taxpayers' money, but too busy and too sensible to want

to meddle in the details of defense management unless there is clear evidence that the managers are not doing their jobs well.

In working with this type of Congress, the administration would strengthen its case by sharing many of the analyses used to arrive at its own decisions. It should certainly reveal long-range and intermediate-range plans and thoroughly discuss major uncertainties surrounding these plans. It should make the best possible estimates of costs and of the pace of future technological development, but clearly reveal how uncertain these are in order to prepare the Congress for the possibility that things will not go according to schedule. A Congress thoroughly immersed in this kind of discussion would presumably want to examine important supporting analyses and question their assumptions. It might also want to discuss alternatives that were rejected and hear the rationale for discarding them.

This thoughtful discussion of national security policy in the Congress, well-covered in the media, would give both the Congress and the public a thorough understanding of threats to U.S. security, what was being done to meet them, why it was expensive, and why actual military operations and even loss of life might sometimes be necessary. The risk, of course, is that this thoughtful Congress, and the public it represents, might not always agree with the military establishment's view of the world and how to respond to it. They might ask very hard questions: Exactly why do we need a 600-ship navy? Is there a firm rationale for the 600 or is it just a convenient round number? Have we budgeted the manpower needed to operate 600 ships? What are those additional aircraft carriers actually going to do? Does an offensive maritime strategy against the Soviets really make sense? Is there a less expensive, less risky alternative? Questions of this nature might end up on the front page or the evening news; they might even be answered differently than proposed by the administration. From the administration's viewpoint there is considerable risk, but there is also the potential gain of gradually building public understanding and solid support for policies undertaken.

Another assumption the administration might make about the Congress could be called the Ward Heeler model. The assumption is that the people elected to the House and the Senate are basically small-time politicians with little understanding of or concern for the complex public issues of our time. Their principal objective is to be reelected, and their principal means of doing so is to bring visible benefits, especially jobs, to their states and districts. In addition, they respond easily to flattery and like to play with expensive toys, so it is a good idea to let them have their pictures taken in the cockpit of an F-14. This model is a bit insulting, so it is never spelled out very clearly, except by stand-up comedians and by academics (who call it the public choice model).

An administration dealing with this type of Congress should take a different approach to justifying the defense budget. Rationales for higher spending should be simple, direct, and nonanalytical. Emphasis should be on people or things of which potential adversaries have more. Procurement should be as high a fraction of the budget as feasible, with a wide geographical distribution. Arguments for new weapons systems should emphasize where they would be made, not what they would do. Ships, for example, should be constructed in as many states as possible and home-ported in every coastal town with a sailing marina. Cost is not particularly important, except when the Government is buying identifiable small items easily priced in a hardware store.

The real Congress, of course, lies somewhere between these two models. There are some ward heelers and some genuine statesmen. Most manage to mix legitimate concern for the well-being of their constituents, which is a function of their job in a representative democracy, with genuine dedication to the good of the Nation, which often appeals to their constituents as well. Moreover, I suspect that of the two, the model that will dominate depends in part on how the administration treats the Congress over a period of years. Both models are partially self-fulfilling. Intelligent people who are challenged to think about important issues will usually rise to the occasion, especially when presented with relevant information and comprehensive analysis. Representatives treated like ward heelers may act accordingly. Moreover, if they do not feel they are being asked to participate in genuine debate about important choices or fundamental directions of policy, they may jump into small decisions as a way of exerting power. Micromanagement by Congress may be an outgrowth of the frustration caused by feeling excluded from macro-decisions.

What Administrations Can Do

The next few years are likely to present a real opportunity for thoughtful reexamination of U.S. defense posture. Our relationship with the Soviets may be undergoing fundamental changes. The post-World War II alliances may be creaking and shifting. New threats may arise in parts of the world to which we have given scant attention. Moreover, in the Congress, as in the rest of the country, the generation that fought in—or even remembers—World War II is passing from leadership. Members are younger, better educated, and less likely to have served in the military. Furthermore, the economy is growing more slowly than in the 1950s and 1960s. The deficit must be closed and public resources are likely to remain scarce for a long time. Hence, for many diverse reasons, the time may be right for reexamination of basic questions such as: What role should the United States

be trying to play in the world? What kind of military forces do we need? How are we going to pay for them?

Whether this debate is informed and constructive or merely a shouting match depends in part on how well successive administrations deal with Congress. I would hope that administrations would consciously treat the Congress as a capable, helpful board of directors, thereby, raising the quality of debates and decisions.

This would mean:

- Thinking through long-range plans and sharing them with Congress.
- Undertaking and disclosing analyses of major force structure and weapons system options.
- Recognizing the Congress' need for independent analyses of these and other options by committee staffs, the Congressional Budget Office, and other Congressional agencies.
- Inviting dialogue between administration and Congressional analysts, discussion of each other's assumptions, and mutual efforts to improve the Congressional and public understanding of problems and solutions.

All of this does not mean that Congressional decisions will be nonpolitical, legislators are elected to represent the political views and needs of their constituents. Moreover, the politics is not limited to Congress. The services and the Secretary of Defense also represent constituencies with needs and views. Indeed, a "competing constituencies" model of administration and Congressional interaction may be more realistic than either of those I have just discussed.

This role of the DoD as representative of a constituency is perhaps most obvious when it comes to decisions about pay and benefits, especially benefits of great importance to the career military, such as retirement. In these types of decisions, modeling and systematic analysis can be extremely helpful in illustrating the long-term costs and consequences of alternative patterns of pay and benefits. Independent analysis by Congressional agencies is needed to explore options and assumptions that the politics of the Pentagon might make the Secretary of Defense reluctant to suggest.

But, while politics will and should remain important to both the administration and Congress, the more that can be done to focus attention on major issues affecting the effectiveness of national defense, the greater the likelihood of benefits to the country as a whole. Leadership to raise the quality of debate probably has to originate with the administration.

What the Congress Can Do

While the administration can challenge the Congress to raise the quality of debate about national security issues and the defense budget, Congress itself needs to overhaul its own decision-making procedures. As the Odeen

Committee, of which I was a member, pointed out in its report (Center for Strategic and International Studies, Georgetown University, *Toward A More Effective Defense*, 1985): "No legislature in the world devotes as much time, energy, and talent to decision making on the defense budget as does the U.S. Congress. Nevertheless, almost everyone involved in the process, within the Congress itself and in the executive branch, has expressed dissatisfaction with both the outcome of this effort and the process itself. Changing the way Congress reviews the budget would not only improve legislative oversight of defense policy, but also would encourage and reinforce reforms in the Pentagon."

Congress suffers from work overload of its own making—reviewing the defense budget too often in too many committees and in too great detail. It reviews the defense budget at least three times in each chamber (in connection with authorization and appropriation bills and budget resolutions). Too rarely are controversial weapons systems given either a full go-ahead or a final death warrant; they just limp from one review to the next. The whole process suffers from excessive detail and short-term focus and misses the major long-term issues that need to be understood and debated if the effectiveness of defense is to improve.

The Odeen Committee recommended several reforms that would help the Congress obtain a better grip on major issues and raise the quality of Congressional debate on the defense budget. One recommendation was to make defense budget decisions less often by moving to multiyear budgeting. Indeed, last year the Department of Defense made a serious effort to move to a biennial budget. Unfortunately, while the DoD apparently found the two-year approach both feasible and useful, the Congress, especially the appropriations committees, remains less than fully converted.

The increasingly redundant functioning of the authorizing and appropriating committees is another impediment to thorough discussion of major issues and encourages competitive micromanagement. Consolidating the two committees into a single defense program committee might improve Congressional effectiveness in the defense area. Alternatively, as recommended by the Odeen Committee, the roles of the authorizing and appropriating committees could be more clearly differentiated: "The armed services committees should review the department's long-range plan, insist that it be based on realistic outyear forecasts of resources, and debate the underlying issues of overall defense policy that the plan reflects. The appropriating committees should focus their attention on the decisions necessary to translate the defense program approved by the armed services committees into a two-year budget."

Major opportunities exist for improving decision making on national security issues both in Congress and the administration and, in the process,

the public's understanding of the importance of strong, effective defense. Systematic analysis has a major role to play—along with leadership, judgment, common sense, and reform of decision-making procedures—for improvement in the quality of debate and decision making on national security issues.

This paper was presented on 3 December 1987 to the 1987 Seapower Forum, sponsored by the Center for Naval Analyses. The views expressed are solely those of the author and should not be ascribed to the trustees, officers, or other staff members of The Brookings Institution.

Ψ

"Wars usually last longer and cost more than governments expect; and they rarely achieve the political goals that might justify the risks, the cost and the pain."

Piers Mackesy
War without Victory: The Downfall of Pitt, 1799-1802
Oxford: Clarendon Press, 1984, p. 225)

Strategy as a Guide to Force Planning

Henry C. Bartlett and G. Paul Holman, Jr.

Is there a method to Pentagon madness? That is the question so often asked about defense planning by Congressional and journalistic critics. Between the extremes of "throwing money at the problem" and "indiscriminate cuts," is there a better approach to force planning?[1]

Many authorities believe there is. The Commission on Integrated Long-Term Strategy, in its January 1988 report, *Discriminate Deterrence*, suggests that, "Our *strategy* must be designed for the long term, to *guide* force development, weapons procurement, and arms negotiations."[2] We agree. The question unanswered by the report is, how?

The Commission is not alone in its assertion. Almost all high-level statements on national security policy explicitly or implicitly identify strategy as a guide for choosing forces.[3] The words are familiar, but our experience as classroom teachers of force planning suggests that they are hollow. It is not always clear to students how strategy can guide us toward rational force choices, even after reading our highest level strategic documents.

This article attempts to show how strategy can serve as a guide in force planning. We argue that strategies can be broken down into sets of key elements or "descriptors" that can be used as criteria for evaluating alternative force choices. We will also point out that force planners deal with progressive layers of strategies. Logically, the descriptors of lower level strategies should support those at a higher level of national security concern.

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As an Air Force Officer, Professor Bartlett last served as Vice Commander of the 474th TAC Fighter Wing, Nellis AFB. Earning his doctorate in business administration from Indiana University, he specializes in the fields of force planning, defense economics, organizational behavior, and accounting.

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If this is done, strategy provides an excellent means for indicating appropriate levels and mixes of military forces in support of national interests.

National security analysts constantly assess our nation's place in the world, often using what is termed a "top-down" approach to do this.[4] They begin with national interests and derive appropriate national security policies, objectives, and strategies to deal with threats and pursue opportunities. Force planners conduct much the same intellectual journey, but with greater stress on the military dimension. In this article, we will use a top-down approach, beginning with a net assessment and descending through levels of strategy to the forces.

The Threat

Theoretically, our national capabilities should be evaluated in light of our actual and potential adversaries. The technical term for this analysis is net assessment,[5] or what the Soviets call the correlation of forces. The United States and Soviet Union each view the other as the primary threat to their respective national interests.

This emphasis on the Soviets is not meant to deny the existence of other threats to American national security interests. They include drugs, terrorists, regional conflicts, and countries such as Iran, which may be hostile to America, but are in no sense Soviet proxies. We will focus on the Soviet threat for three reasons: it is the only one which could physically devastate America by nuclear means; it has dominated national security decisions over the past forty years; and it allows us to trace the full logic of strategy as a guide in force planning.

National Objectives

In dealing with the Soviet threat, our range of strategic choices has been surprisingly narrow: rollback, containment, or accommodation with Soviet power. These are familiar words to the student of American foreign policy and they have practical significance for force planners. When those policy alternatives are stated as overall national objectives, the choice of one or the other should logically dispose us toward different military force structures. As an example, rollback would favor a heavily offensive orientation, while accommodation would favor a minimal defense.

National Strategy

Given the Soviet threat and a containment objective, the next decision involves strategy—the game plan for linking the instruments of national

power (economic, political, military, and psychological) to the accomplishment of our political goals. Since World War II, our national strategy for handling the Soviet threat has laid great stress on our many allies. This coalition strategy for containing Soviet power is sharply different from other conceivable approaches such as a go-it-alone game plan. (This might be an isolationist, "Fortress America" strategy, or something very different: a willingness to contain the Soviets unilaterally, where necessary, while maintaining the U.S. role as the dominant maritime power—but without necessarily committing ourselves to defend any portion of the Eurasian landmass.)

This choice of a national strategy will continue to channel us toward distinct force alternatives. As an example, our coalition strategy permits member nations to specialize in specific military missions where they have comparative advantages. For the NATO alliance, the U.S. Navy can concentrate on open ocean operations, while western Europe focuses on other required missions such as shallow water ASW and mine warfare. An alternative go-it-alone strategy would probably result in a more ambitious Navy, with strong capabilities in all mission areas, probably at the expense of our forward deployed ground and tactical air forces.

National Military Strategy

From a military perspective, we have consistently sought to deter Soviet attacks against us and our allies. This objective leads to force characteristics that are different from the intent to deliberately attack (as an example, the force structure required to achieve Hitler's vision of a greatly expanded Germany) or, more conservatively, a use of massive military power to compel rivals to do our bidding.

If our goal is to deter, we can choose from different types of deterrent strategies. Two theoretical extremes are threat of punishment and denial of an adversary's objectives. Again, whichever emphasis is chosen will tend to guide force choices in a particular direction. Two examples of deterrence by threat of punishment are the current French nuclear strategy of massive retaliation and similar U.S. thinking during the 1950s and early 1960s. The best example of deterrence by denial is current Soviet strategy, which requires large, active, and passive defensive capabilities to frustrate any potential attack.

In the nuclear arena, threat of punishment has taken the form of an offensive force structure which can devastate the enemy's homeland—even under the worst case of absorbing a surprise first strike. The key attributes of such forces must be survivability—reflected in the strategic triad of land, air, and sea-based forces—and their assured penetration of enemy defenses.

U.S. strategy has long been mixed. It originally stressed threat of punishment by retaliatory strikes against countervalue targets (such as the industrial and economic infrastructure). But as technology and the Soviet threat advanced, arguments arose over the need for at least some counterforce capabilities for our offensive forces. The advocates of such capabilities contended that we could deter war most effectively by threatening what the Soviets value most (not merely their cities, but also ICBM silos, airfields, logistical centers, and division bases). If such a counterforce capability makes ultimate Soviet war aims unattractive, then logically a surprise attack would not occur in the first place.

However, elements of a strategy based upon denial of objectives never totally left American thinking and have increased notably over the past two administrations. In offensive terms, we seek forces with high accuracy. The objectives are very ambitious: denying the Soviets the reserve forces they would require to continue the conflict; limiting the damage a second Soviet strike could inflict on the American homeland; and preventing Soviet domination of the postwar world. In defensive terms, we have had at least some continental air defenses, civil defense, and research on antiballistic missile capabilities since the 1950s. More recently, the President has directed greater emphasis on strategic ballistic missile defense research. The Strategic Defense Initiative (SDI) has subsequently grown in importance. We are approaching the point when advanced technology may further increase the defensive aspects of the denial component in our strategy.

In the conventional arena, our strategy to deter Soviet aggression has been strikingly consistent since World War II. We have chosen to defend selected parts of Eurasia by forward deployment of land, air, and sea forces on allied territory. This element of a conventional strategy is starkly different from an alternative of basing these forces at home in a central reserve. Here again, U.S. strategy has been mixed. Both of these elements logically support our national strategy of coalitions, but they have very different effects upon the resulting force structures. As an example, if a greater proportion of our reinforcements are allocated to a central reserve, we will require more ships and aircraft to provide strategic mobility for crisis response and reinforcement.

Our most familiar planning documents usually offer additional descriptors or elements of our conventional strategy. These generally include collective security, which in military terms supports the higher level coalition strategy; flexibility to handle the full range of both Soviet and non-Soviet threats; rapid reinforcement in the event of war; and security assistance to friends and surrogates, which multiplies our assets without requiring direct U.S. intervention. Such documents also include other descriptors or concepts whose content and frequency have varied. One is technological superiority (to offset Warsaw Pact numerical superiorities and husband our human

resources). We also include the concept of deliberate escalation, which could occur in terms of intensity (from conventional to nuclear combat), or expanded geographical scope (for example, opening a new front).[6]

Using such descriptors does not help us to identify the specific numbers of tanks, aircraft, ships, and warheads we may require for any given circumstance or region. Nor does it formulate any "von Schlieffen plan" to aid us in future conflicts. But this approach does create a way to communicate ideas among force planners, strategists, and concerned laymen. If we distill and array such descriptors of a strategy as we have done above, they provide a coherent array of criteria for evaluating alternative force choices. Such an array will provide a general sense of direction, channeling force choices through the levels of strategy.

Regional Strategy

Next, having assembled useful arrays of force planning criteria from the national and military levels of strategy, we shall proceed on down to the regional level. Our major regional planning case since World War II has been NATO. Consequently, we will explore the descriptors of NATO's flexible response strategy.

A key element of flexible response is forward defense against the Warsaw Pact threat at NATO borders. Its goal is to preclude any perception that territory would be surrendered either temporarily or permanently. One possible alternative could be a concept of rearward defense, which would trade space for time by maneuvering on NATO territory while preparing to counterattack. Another might be some variant of forward offense involving an immediate counteroffensive into Warsaw Pact territory. Choices at this regional level of strategy affect very broad force characteristics such as the basing structure, reliance upon reserves, deep-strike systems, and the degree of armored forces.

Forward defense at the inter-German border is currently explained in terms of a "layer cake" of NATO national corps arrayed side by side from north to south. At warning, these corps deploy forward to the border and take up planned defensive positions which, at best, have been lightly prepared. This element of the flexible response strategy, therefore, stresses speed of deployment by mechanized forces with strong antitank capabilities.

This concept of forward defense involves certain risks. Current force levels are relatively low. Consequently it is questionable whether we have adequate reserves in the NATO rear to stop a major Warsaw Pact breakthrough. This situation has intensified the old debate over the effectiveness of forward defense. Various alternatives have been proposed.

One is the concept of a cordon defense behind the West German border. Such a strategy descriptor would logically stress barrier systems and

hardened fortifications. Such concepts evoke memories of the ineffective Maginot Line and stimulate West German concerns about perpetuating the division of their nation. As a result, NATO has consistently rejected such an approach.

A second possibility, which has been receiving greater attention over the past several years, is deep attack. Its two major forms are follow-on-forces-attack (FOFA) and the U.S. joint doctrine of airland battle. Both variants put unprecedented stress on identifying, targeting, and striking Warsaw Pact land forces behind the front lines as they move forward from their mobilization points. FOFA is limited to deep attack by air and missile systems to reflect NATO's declared position that it is a defensive alliance and has no intention of operating on or seizing Warsaw Pact territory. Airland battle doctrine also stresses deep attacks against Warsaw Pact follow-on forces. However, it conveys an additional sense of maneuver and counteroffensive operations by land forces—perhaps across the inter-German border. Such a concept is not acceptable because of NATO's declaratory, defensive objectives and strategy.

The force structure implications for striking deep—in both FOFA and airland battle—are much the same. Each variant requires extraordinary attention to advanced technology for command, control, communications, and intelligence; real-time identification and targeting at considerable range; all-weather delivery systems; and precision-guided munitions. They differ only in the greater requirement for ground maneuver forces under airland battle doctrine.

A third possibility, which has been extensively discussed in Western academic circles, is the concept of a defensive defense dominated by forces which could not conceivably threaten Warsaw Pact vital interests. It has taken many forms, but most would stress dense, light, and highly potent antitank forces—as opposed to main battle tanks, which the Warsaw Pact might misinterpret as threatening offensive intentions.

These alternatives (cordon, deep attack, and defensive defense) would only change the forward defense element in NATO's flexible response strategy. However, there are several other key descriptors. One is direct defense at the level and point of attack. This element of the strategy requires attention by force planners to the full geography of NATO (such as the extreme Norwegian and Turkish flanks), as well as the full spectrum of warfare. An opposite concept, such as indirect defense, would put less of a premium on the military capability to respond in place and kind to Warsaw Pact aggression.

Another key descriptor of the NATO flexible response strategy is rapid reinforcement as opposed to a more deliberate, slower reinforcement. This goal of rapid reinforcement has channeled NATO forces in some very important directions. Within the space of ten days, the United States is

committed to deploy, "a total of ten Army divisions (of which four, plus two armored cavalry regiments, are stationed in Europe in peacetime), 60 reinforcing tactical fighter squadrons, and one Marine Expeditionary Brigade (MEB), plus support detachments for all of these forces."[7] To do this, planners have elected to pre-position sets of division equipment in Europe (as opposed to sending them by sealift, which a slower reinforcement concept would allow). Thus we accelerate the reinforcement of Europe by limiting our logistical burden to airlift of the soldiers.

Threat of escalation is perhaps the final key element of the strategy of flexible response. NATO seeks to deter political coercion, territorial encroachment, and war by threatening the use of nuclear weapons if conventional forces fail. This is a sharply different and vastly cheaper concept than conventional deterrence. In terms of force planning, this descriptor points to the need for a range of theater nuclear weapons. It will also pose painful questions for NATO force planners as arms control agreements take effect. As examples, how will the Intermediate Nuclear Forces (INF) treaty affect NATO's ability to deter conventional aggression through the threat of escalation? How would a 50-percent reduction in strategic nuclear warheads affect NATO's strategy and force structure?

Several lessons emerge from the NATO example. First is the importance of strategic clarity. Strategy cannot be a useful guide in force planning unless it can be distilled into a readily understood array of descriptors, which then become the criteria for evaluating alternative force choices. Second is the need for strategic simplicity. It is very easy for a multilateral alliance of democratic countries to talk too much and too vaguely about their strategy for achieving desired objectives. This can even be the case for strategists in general. Third is the countervailing requirement for elements of strategic ambiguity. A strategy of deterrence may require an aspect of incalculability. For example, the threat of escalation should be hedged by some deliberately vague qualifications. What we seek is sufficient clarity and simplicity to guide our own force planners, without giving potential enemies enough insight to counter our strategy and achieve their political objectives.

Schools of Strategy

Having considered national (grand), national military, and regional strategies, we next consider the choices offered by radically different perspectives arising from at least three distinct emphases in strategic thought. They are the maritime, continental, and aerospace schools. Most War College students are familiar with the concepts of Mahan, Corbett, Mackinder, and Douhet. Each of these classic theorists established an environmental theme around which strategies can be crafted and forces channeled.

Our principal rival, the Soviet Union, has a traditional preference for the continental view and constantly reasserts that victory in war requires the seizure of enemy territory after destruction of his forces. Historically, Moscow has attached less importance to both maritime and aerospace perspectives than we have. Americans have long been attracted by Douhet's stress on air power as a means of transcending the potential stagnation and cost of ground combat. The result has been a long debate over the effectiveness of using conventional air power against the enemy's heartland to achieve victory. An analogous debate has raged even longer concerning the utility of maritime tools to gain strategic leverage against a continental power.

There is the constant risk that undue emphasis on one of these environmental schools of strategy could distort force choices and thus confound our ability to deal with known and emerging threats. Some critics have made precisely that accusation against the maritime strategy set forth by the U.S. Navy in the mid-1980s.[8] For the purposes of this article, we will neither defend nor attack that strategy, but simply use it to continue our exploration of how strategy descriptors can guide force planning at a distinctly different level of strategy.

Maritime Component of the National Military Strategy

The Maritime Strategy aims to support U.S. national strategy under all scenarios ranging from peacetime presence through strategic nuclear war. Its goal is to bolster deterrence through both the threat of punishment and the actual denial of Soviet objectives by the application of U.S. naval power. Should deterrence fail, U.S. naval forces would attempt to influence the outcome of the war by controlling escalation, seizing the initiative, and taking the fight to the enemy.

These are ambitious objectives, and the blueprint by which we would achieve them may or may not contain sufficient strategic descriptors to chart the general course of U.S. naval force planning.

Official, unclassified documents present the Maritime Strategy in terms of a scenario of global, conventional war with the Soviet Union. It begins with an unfolding crisis situation, which might or might not escalate to combat. The first descriptor found therein is that our forces would deploy early. This seemingly simple element has major force planning implications such as high readiness, forward basing abroad, strategic home-base locations, and the potential need for stealth in the initial stages of the crisis.

Another element of the strategy is to deploy our naval forces well forward against the Soviet Navy. The purpose is to sink the Soviet Fleet or deny it access to the open oceans in the early stages of a war. These goals could ensure the rapid reinforcement by sea upon which our allies depend so

heavily. We cannot resolve in this paper how far forward we would go; this is the rightful terrain of future campaign planners. But we can say with certainty that early, forward deployment has sharply different force planning implications than a later, more rearward orientation.

The Maritime Strategy also anticipates that U.S. naval forces would respond to Soviet aggression (probably on land) by taking the offensive. They would seize the initiative at sea, both destroying deployed Soviet forces and fighting their way toward Soviet home waters. No other descriptor of the Maritime Strategy produces a force structure so starkly different from other conceivable approaches to neutralizing the Soviet naval threat. Defensive concepts, such as barrier defenses or convoy escort, would predispose us toward different mission areas with different, far less robust capabilities.

A further element of the strategy is the sense of simultaneous operations at sea in all theaters to destroy Soviet naval forces. This could include not only ships, but also naval aircraft, bases, and sanctuaries. If such operations were conducted sequentially instead, the level of forces required might be different.

A naval force capable of early, forward, offensive, and simultaneous operations against highly valued Soviet assets will be different in both level and mix than other, hypothetical navies built to support alternative strategies. Structuring such a force involves risk. As an example, focusing on the "worst case" of protracted, global, conventional war with the Soviet Union requires assumptions about a navy that will be used in more likely cases of crisis response and contingencies in the Third World. Above all, force planners assume—sometimes too rashly—that a force structure designed for the high-threat Soviet environment can also control less demanding scenarios.

Recent events in the Persian Gulf illustrate both the weakness and the strength of this assumption. In the short term, U.S. naval forces were embarrassingly vulnerable to the low technology of mine warfare during the early days of the crisis. Such a situation was not accidental. It reflected a conscious choice among maritime strategy descriptors, in which forward, offensive capabilities were maximized for the U.S. Navy—leaving significant mine warfare capabilities with our allies.

However, as subsequent events in the Persian Gulf have unfolded, two points are worth noting. First, in non-Soviet contingencies, it is probable that there will be sufficient time and space to overcome initial shortcomings resulting from the high-threat Soviet emphasis. U.S. naval forces did adapt to the environment, and allies were forthcoming in helping with mine operations. Second, naval forces designed for such strategy descriptors as forward and offensive—relative to a high threat Soviet environment—will dominate Third World maritime battlefields when appropriate forces are brought to bear.

Implications

Observers will differ in their evaluation of U.S. strategy, force structure, and crisis responses, especially when we look to the future. The strategy descriptors which we have examined do not include every military planning case, but the same methodology can be applied to them.

SDI is an example. It may revolutionize many aspects of force planning. Above all it reflects a much stronger movement toward the strategic defensive as opposed to the offensive orientation of our current strategy. Moreover, it would put a greater premium upon nonnuclear as opposed to nuclear capabilities. To the extent that we are relying upon extremely advanced, expensive, and untested technical capabilities, we can anticipate many debates over ground-based versus space-based systems and near-term versus long-term operational capabilities. These debates will involve the most revolutionary changes in military strategy in recent years, and we can clarify them greatly by carefully defining the strategy descriptors which must guide our many and complex force choices.

Perhaps an even more difficult challenge is now posed by arms control initiatives. There is a very serious risk that drastic changes in theater and intercontinental nuclear systems will have unforeseen impacts upon current strategy. For example, the INF treaty has major implications for many aspects of NATO force planning. As theater-range nuclear systems decline drastically in number, will NATO need to compensate by moving toward conventional deterrence? Will NATO prefer to modernize its shorter range nuclear systems, or focus upon deep strike aircraft? What will be the impact on Soviet strategy and on the overall likelihood of war?

Finally, how can we pay for these changes? There is a high probability that declining real defense budgets (since FY 1985) will continue. During such periods of retrenchment, the worst possible outcome for the U.S. Armed Forces would be indiscriminate cuts inflicted more by service "rice bowls" and Congressional "pork barrels" than by rational criteria. Cooler heads will argue against such irrational cuts, offering a wide range of wiser choices. They might argue that we should redefine our national interests, redistribute the burdens among our allies, change national objectives, or alter the national military strategy. In every case, the authors of this article contend that careful attention to existing or emerging strategy descriptors will result in a more effective mix and level of forces.

Notes

1. The term "forces," as it is used throughout this article, means total military or warfighting capability. It reflects the full level and mix of weapon systems, people, and ideas.

2. The Commission on Integrated Long-Term Strategy, *Discriminate Deterrence* (Washington: U.S. Govt. Print. Off., 1988), p. 1.

3. Official statements vary in how strongly they present this assertion. Contrast Caspar W. Weinberger, *Annual Report to the Congress. Fiscal Year 1984* (Washington: U.S. Govt. Print. Off., 1983), p. 18, with the vaguer formulation in Chart I.A.1, Frank C. Carlucci, *Annual Report to the Congress. Fiscal Year 1989* (Washington: U.S. Govt. Print. Off., 1988), p. 17.

4. This concept of a "top-down" approach to force planning is explored in Richmond A. Lloyd and the Force Planning Faculty, Naval War College, eds., *Foundations of Force Planning: Concepts and Issues* (Newport, R.I.: Naval War College Press, 1986), pp. 62 and 217.

5. See John M. Collins, *U.S.-Soviet Military Balance. Concepts and Capabilities 1960-1980* (New York: McGraw-Hill, 1980), pp. 3-14, for perhaps the best elaboration of the essentials of net assessment.

6. Compare and contrast the interestingly different formulations in the Secretary of Defense's *Annual Report for FY 1988* (pp. 47-50) and *FY 1989* (pp. 63-65) with The Joint Staff, *United States Military Posture for FY 1989* (Washington: U.S. Govt. Print. Off., 1988), pp. 2-4.

7. *Annual Report FY 1989*, p. 219.

8. For representative examples of such critics, see John J. Mearsheimer, "The Maritime Strategy and Deterrence in Europe," *International Security*, Fall 1986, and the exchange of views between John M. Collins and Rear Admiral William Pendley in U.S. Naval Institute *Proceedings*, March, June, and August 1986.

War Experience and Force Requirements

Michael Vlahos and Dale K. Pace

Naval force requirements—how we "size" the fleet—are framed by national policies for war. These policies, however indirectly, mandate Navy missions. To fulfill these missions, a fleet must be big enough and capable enough to do the job.

The reverse is also true. Perceptions of the adequacy of naval forces impact on how national policy is made before a war. Current naval forces tend to shape perceptions about future force levels. Today's fleet sustains the credibility of war missions that are implicit in national policies, the policies that set force levels in the first place.

Estimating naval force levels is a difficult task. The process must operate within a narrow band of choices circumscribed by restraints imposed by traditional fleet size, national policies, and naval budgets. Within these limits, the key question, how much will be "enough" in a war? must be addressed.

Shipbuilding programs determine the available naval order of battle. Combatants require 7 to 12 years to be designed and built and often remain in service for several decades. The relationship between naval requirements, shipbuilding, and force levels demands a long-term perspective.

An adequate fleet ultimately means naval force that can pursue its wartime missions even when ships are lost. The art of estimating naval force requirements should encompass the relationship between shipbuilding programs and potential combat losses.

An assessment of naval adequacy should also include ship design factors, especially the combat endurance of ships. How much can careful design minimize war losses? This factor plays an important part in bounding the relationship between shipbuilding programs and anticipated war losses; it is worth an article of its own, which we will not attempt here. Our purpose is to encourage integration of two slighted factors—shipbuilding programs and potential war losses—into the estimation of naval force requirements.

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Prior to the Second World War, the United States sized its fleet to an arbitrary numerical ratio, ideally, a fixed percentage of the battle fleet of a potential enemy. Annual battleship building programs were defined by this same simple calculation. In the 1920s, the U.S. Fleet was sized by international treaty, the terms of which extended the concept of capital ship ratios as the basis for naval force requirements.

Even this crude approach to estimating naval force levels was an improvement over older American traditions. In the 19th century it was impossible to tie fleet size to a potential maritime threat. Linking naval force levels to potential war missions was a cultural taboo. Even during the early 20th century it was considered militaristic or belligerent to speak of a potential enemy when presenting shipbuilding programs to Congress. In contrast, the analysis of required force levels is driven by war assumptions, an approach that is often criticized in public debate.

Throughout our history, American national policies have tended to allot inadequate numbers of ships to fulfill the missions assigned to the Navy. This is still true today. U.S. naval forces must be ready for use in demanding, dissimilar conditions: peacetime (or non-war) operations, combat operations in Third World areas, conventional conflict with the Soviet Union, and nuclear war.

Today, the potential capability of Third World naval forces is increasing and Soviet combatants are gaining rapidly in sophistication. In terms of ship design, both the Soviet and Third World navies are reducing the technological superiority of U.S. ships and weapons. In 20 years, at least some Third World fleets—for example, that of India and perhaps that of Brazil—will have combatants that will at least equal the West's best. The Soviet Fleet may close the gap in submarine system capabilities within the next few years.

The traditional Navy approach to overcommitment has been to focus its force requirements on the most rigorous potential mission. That mission today—apart from the Navy's ballistic missile force—is described as a protracted conventional war with the Soviet Union. The American and Japanese naval experiences in just such a war 45 years ago offer many insights into the relationship between building programs and war losses, and mission adequacy in war. These insights can suggest an effective approach to estimating U.S. naval force requirements for the future. We will examine some of these insights and illustrate an approach that considers war losses for estimating force requirements.

Insights from Combat Experience

Ships are lost in war. This is expected. Heavy losses can be accepted in a short war. In anticipation of a short struggle, it is possible to plan confidently for war objectives with a prewar order of battle.

But what of a high-intensity conflict of uncertain duration? Protracted war implies long-term ship attrition. Under those circumstances it is difficult to anticipate casualties on two levels: losses from planned operations and cumulative losses later. If war extends beyond the initial (or planned) phase, will enough ships be left to win? Can prewar planning anticipate long-term war losses and prepare to offer timely replacements with new construction?

There are valid reasons for looking at the Pacific war of 1941-1945. It was part of a protracted, global, conventional war that lasted 44 months. The U.S. Navy faced battle challenges not unlike those anticipated today: that of heavy land-based air attacks, that of massed air-to-surface missile strikes (kamikazes), that of a 24-hour-battle milieu, that of assimilating untested technologies, and that of an ever-present submarine threat.

Even more important for Navy planning today, however, is the persistent myth of the last war. The Navy's experience in Westpac remains the preferred case for today: the triumph of a superbly executed maritime strategy. The Pacific war, in keeping with today's maritime strategy, carried the fight to the enemy, overturning an earlier Navy stance of simply defending America's shores. It is worth comparing our efforts in that war—especially in ships built against ships lost—to what we might do today.

The Imperial Japanese Navy thus takes on a powerful historical resonance. The Japanese maintained a large peacetime fleet for political goals. This fleet was sustained at near-war readiness, with a high proportion of their order of battle at sea. The Japanese benefited from strong annual ship-buys, but were unable to program their shipbuilding for protracted war. Without the industrial base and particularly the shipbuilding industry needed for surge production, they were forced to fight a "come as you are" war at sea.

Parameters and Definitions

Analysis by historical analogy requires conscious bounding of the useful limits of analogy itself. The problems faced in prosecuting that war, the basic ship and weapon systems structuring operations, and the prolonged intensity of the conflict make it a reasonable analogy for a contemporary protracted global war-planning contingency.

Comparison is also useful to project a pattern of phases to a war. Protracted wars in this century have assumed a rhythm of dynamic phases. In the Pacific war, this took the form of an initial phase which included the early Japanese offensives and the unanticipated first American counteroffensive at Guadalcanal. This highly intensive period was followed by an operational "breather"; then, high-intensity operations resumed. At the end of the Guadalcanal campaign in February 1943, both the U.S. and Japanese navies were exhausted. The United States took a five-month

breather; the Japanese naval pause lasted 15 months. The differing lengths of this mid-phase were functions of both losses and replacement rates.

In the Second World War, as today, a carrier was a carrier, a "fleet carrier," or real "flattop" if it operated with the fleet, specifically the high-speed task groups. The CV category therefore includes the light fleet carriers, or CVLs. In functional terms, these converted cruisers were just as much battle group combatants as the big ships of the *Essex* class.

The eight-inch gun "Treaty," or "heavy" cruiser (CA) is distinguished from the so-called "light" cruiser (CL) with five or six-inch guns. In the interwar U.S. Navy, the Treaty cruiser force assumed an importance out of proportion to its gunpower. In a fleet dominated by a slow, obsolescent force of battleships, the 10,000-ton Washington cruisers became the functional equivalent of small, fast battleships. During the initial phase of the war, in the Southwest Pacific, the CA force was employed in classic capital ship fashion. Japanese CAs were used in exactly the same way. So great were American CA losses in this phase, that the U.S. Navy was forced to use its equally big post-Treaty six-inch cruisers as substitutes.

Both navies needed fast, modern, well-gunned, and protected surface combatants. The only such ships available were the eight-inch cruisers. In contrast, the Japanese had only two fast, modern battleships in 1942—the *Yamato* and *Musashi*—and they were national treasures that could not be risked. Two fast, but very old, battleships, the *Hiei* and the *Kirishima*, were thrown into the fray, and both were lost. The United States had only two fast battleships available for the Southwest Pacific in late 1942 and risked both of them for decisive return.

Some hoary combatants were still counted by both navies in their December 1941 orders of battle. These included a number of destroyers designed and built shortly after World War I. This study looks only at "modern" destroyers; again, meaning "battle-group capable" to those who sent them into action. The U.S. Navy suffered from interwar block obsolescence in destroyers; this meant, in functional terms, all DDs completed after 1934. In the Japanese Navy the demarcating line is more ambiguous. All destroyers not reclassified and refitted as patrol escorts or fast transports before 1942 are considered "modern."

Approaches to Combatant Shipbuilding, 1937-1945

Most combatant additions during the first year of a war will have been appropriated for years before, during normal peacetime: a period without a war-threatening crisis or expectation of an impending conflict.

During the Pacific war, what was the impact of "normal" prewar building programs on the outcome of the initial phase of the war? Pearl Harbor was preceded by two years of European war; the U.S. Navy benefited from a

general national perception of impending war. This sense of urgency was translated into unusually large prewar building programs, with many funded ships laid down for periods of up to 18 months before hostilities. On 7 December 1941 the United States actually had more surface combatants on the way than in commission.

What was the impact of the first wartime building programs on the outcome of the initial phase of the war and the length of the mid-phase?

Full-mobilization programs were initiated after 7 December 1941. They had no impact on the initial phase of the war. However, some of these orders had a major impact on the scheduling of later offensive operations.

How soon did war programs make a difference in the scheduling and tempo of offensive operations? Were they needed to win the war? How much did they alter the outcome at the margins?

Three shipbuilding constraints should be mentioned:

- First, could building times be compressed significantly for major surface combatants? To what extent were some warship completion times a function of available subsystems, like gun turrets and mountings, rather than speed of hull fabrication?
- Second, the actual size of the shipbuilding plant. Could a builder's load be increased?
- Third, starting time is crucial. At what point does a crash wartime program, especially in shipbuilding, become irrelevant? The war may be decided before the big ships are even launched.

Construction times for major surface combatants laid down and completed prewar against ships laid down and put in service during wartime are compared below, with the exception of the battleships. All BBs completed during the war were laid down before the war.

Averages are drawn from samples including all classes of modern prewar and war-built ships: 10 DDs, 10 CVEs, 5 CAs, 5 CLs, and all the BBs and CVs.

Building times for big-gun ships could be cut at the margins—22 percent for battleships and 11 percent for heavy cruisers—but not significantly. The fabrication of complex weapons systems—heavy turrets and mountings—and the output of armored plate were late prewar limitations. Still, it is remarkable that 45,000 and 50,000-ton ships could be finished in two and one-half years.

However impressive, the compression for fleet carriers is less remarkable. They were far less complex than battleships. Even with building times of less than two years, they were not ready to take part in the initial period of the war. In only two types of ships could the yards compress the building or conversion time enough to allow some to take part in the initial period: destroyers and escort carriers.

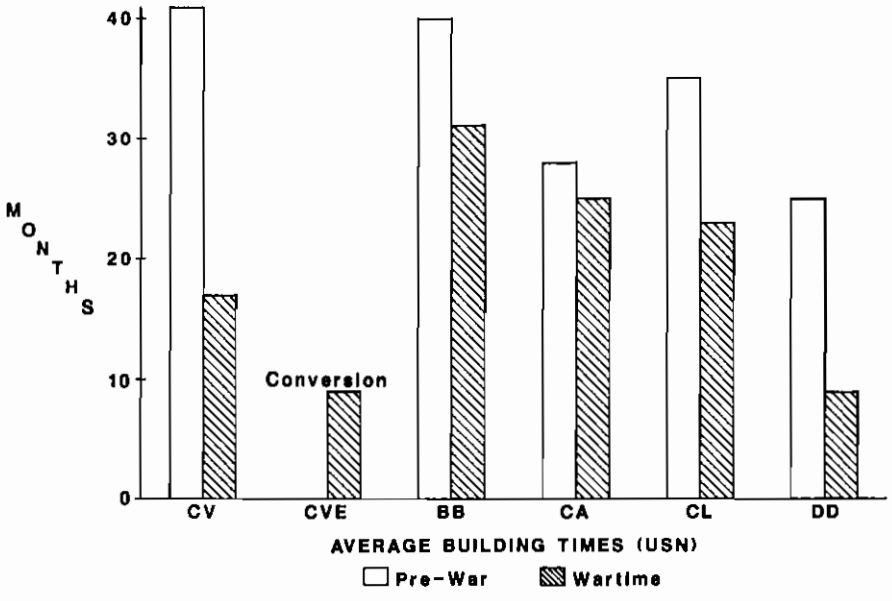


Figure 1

The majority of surface combatants added to the Japanese Navy during the war were appropriated in the course of "normal" prewar building programs at least two fiscal years before the war. As it turned out, those appropriated in 1940 and 1941 were less likely than earlier ships to see service. It is also important to note that the size of Japan's late prewar programs did not reflect the shipbuilding urgency of an impending war.

Table 1 summarizes the entire Japanese and American shipbuilding effort from 1937 to 1945. Only combatants that might have been ready for active service (commissioned before June 1945) are listed.

Combatant Shipbuilding Programs

	U.S. Navy			Japanese Navy		
	"Brisk" Prewar 1937-39	Prewar Mobilizing 1940-41	War Tempo 1942-45	"Brisk" Prewar 1937-39	Prewar Mobilizing 1940-41	War Tempo 1942-45
Design-Built:						
CV	1	13	27 (25)	3	1	20 (18)
CVE	—	—	85 (58)	—	—	—
BB	8	9 (7)	—	3	—	5 (5)
CA	—	14 (5)	28 (26)	—	2 (2)	—
CL	4	40 (14)	23 (20)	6 (1)	—	5 (5)
DD	24	212	263 (131)	37	26 (12)	—

Combatant Shipbuilding Programs (Cont.)

	U.S. Navy			Japanese Navy		
	"Brisk" Prewar 1937-39	Prewar Mobilizing 1940-41	War Tempo 1942-45	"Brisk" Prewar 1937-39	Prewar Mobilizing 1940-41	War Tempo 1942-45
Converted:						
CV	—	—	9	2	3	2
CVE	—	2	15	—	3	2
Converted CVEs to Royal Navy:	—	3	30	—	—	—

Table 1

Note: Only two-thirds of U.S. Navy BBs and cruisers in 1940-41 programs were completed by June 1945. Numbers in parentheses show those ships still incomplete by June 1945.

The phrase "brisk pre-war" is used to describe the deliberate, if modest, fleet expansion programs of Japan and the United States after 1935 but before 1940.

All Japanese ships, but one, in the 1937-39 programs were completed during the war. The Japanese completed the single CV in the 1940-41 programs, but only about half of the DDs. Actual war programs produced but two ships. In contrast, the success of Japanese war conversion programs is notable: 7 CVs and 5 CVEs, all in active service by early 1944, in contrast to just 4 fleet carriers built between 1939 and mid-1944, a ratio of 3:1. However, Japan had no capacity to respond to the U.S. Navy's 1940 "Two Ocean" program; it was already building near the limits of its shipbuilding plant.

For Japanese naval planners, their very brisk prewar building programs permitted full-force operations only during the initial period of the Pacific war. The Japanese Navy was at the crest of the curve in late 1941: prewar programs pushed its order of battle to a brief, but crucial moment of advantage in the naval balance. In contrast, the U.S. building curve came a couple of years later, too late to have an impact on initial period operations.

But the United States had a far greater capacity than Japan had to increase its prewar shipbuilding tempo. Comparison between the Japanese and U.S. Navy programs of 1937-39 shows the reason for prewar Japanese confidence in their political goal to dominate the western Pacific. For example, although they laid down only 3 battleships to 8 of the United States', the actual tonnage ratio perpetuated their 70 percent ambition. In light cruisers and DDs, the Japanese out-programmed the U.S. Navy by 50 percent. In battle group

carriers (including converted hulls) they surpassed the Americans by 500 percent.

The 1940 U.S. program destroyed Japan's hopes. A significant number of ships in this huge program remained unfinished by the end of the war, including 22 percent of the battleships and 65 percent of the cruisers. All of the 1940 program carriers, however, and all of the DDs of that program were in service by war's end, but even the first of the CVs was not ready for action until the late spring of 1943. In this context, that of an opportunity soon to be lost, Japan's decision for war in the autumn of 1941 makes sense.

The American war programs were far less successful than that of 1940 in delivering major surface combatants before war's end. About half the DDs programmed and only about 9 percent of the CVs, CAs, and CLs appropriated under the blast of war reached the fleet.

Converted hulls made as much impact on the U.S. order of battle as on the Japanese. Nine battle group carriers, 50 converted CVEs (of which 33 were transferred to the Royal Navy), and 58 purpose-built CVEs reached the fleet. The average building or conversion time for CVEs—9 months—was so short that a few could actually be used in the initial period. The four converted fleet oilers of the *Sangamon* class were employed essentially as battle group CVs in late 1942 and early 1943, when for a month there was not one operational fast carrier in the Pacific Theater.

Force Levels and War Operations

Building programs must be assessed in terms of their effect on the naval order of battle.

When completed, a single year's appropriation for the U.S. Navy, that for 1940, would outweigh a decade of Japanese shipbuilding. The impact would be felt increasingly and, in Japanese terms, fatally, after 1942. Battleships symbolized this dread anticipation for the Japanese naval high command. The balance would shift by late 1942 when the U.S. Navy would have six new capital ships.

In contrast, the actual American naval order of battle in the Pacific in late 1941 offered the Japanese a rare offensive opportunity. The extent of actual Japanese naval superiority in the Pacific, and the relative *overall* equality in total order of battle is shown below. This edge, however, according to Japanese assessments, would rapidly erode after March 1942 (see figure 2).

Comparing the Japanese and American naval orders of battle by year gives a series of operational snapshots. Employed traditionally for drawing fleet ratios, it illustrates the impact of losses on a fleet's capacity to conduct operations, and the impact of building programs as an offset to losses. Comparing orders of battle also offers a dynamic sense of ebb and flow in wartime order-of-battle by comparing ships added to ships lost by year (see figure 3).

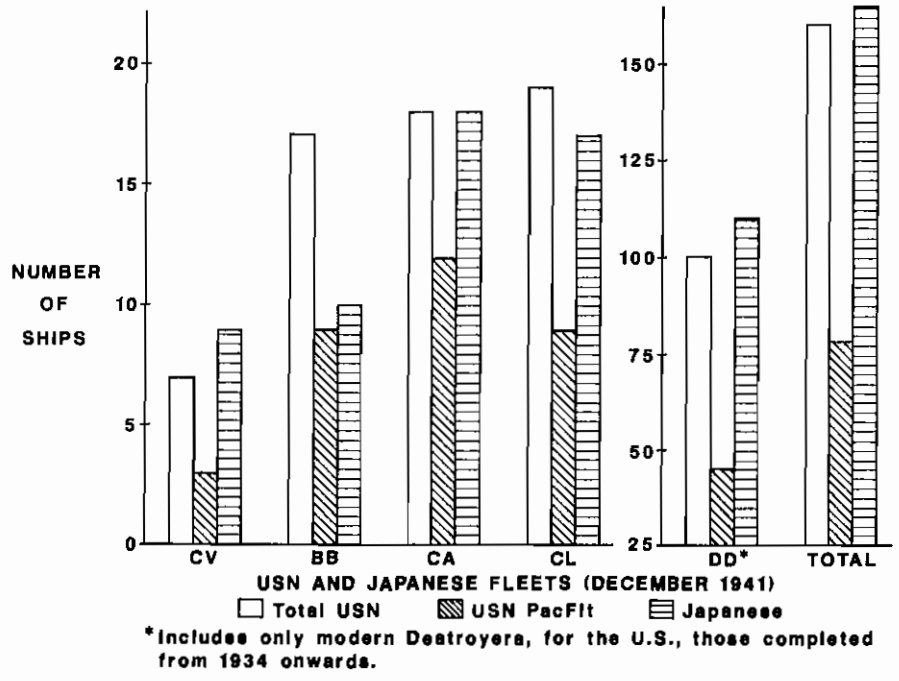


Figure 2

The prewar Japanese fleet was not programmed to accept heavy losses in two key surface combatant types: CVs and DDs. Carrier numbers were maintained only through the conversion of ships in 1942, and the abstinence from operations in 1943. Destroyers could never abstain from critical offensive and escort operations, and losses among them outpaced additions by 2:1 in 1942, 2.5:1 in 1943, and nearly 7:1 in 1944. By the end of 1942, these losses began to impede operations. Both convoy and battle group escort effectiveness declined as a result.

Even prewar battleship and cruiser levels could be preserved through three years of war only by withholding them from fleet action. After two old BBs were lost at Guadalcanal, battleships were withheld for 18 months, and 75 percent of the prewar order of battle remained in October 1944. Carriers were held back for more than 18 months (after the Battle of Santa Cruz in October 1942), and by June 1944 the carrier force exceeded prewar levels. Heavy cruisers were kept out of action for one year after November 1943 and held at 78 percent prewar numbers until Leyte Gulf in October 1944.

In the Guadalcanal campaign, the Japanese used heavy cruisers, as did the Americans, as surrogate battleships. By the end of 1942, four had been lost and a fifth, the *Mogami*, had been put out of action for two years. Altogether, the cruiser force had been degraded by 30 percent. The end of the

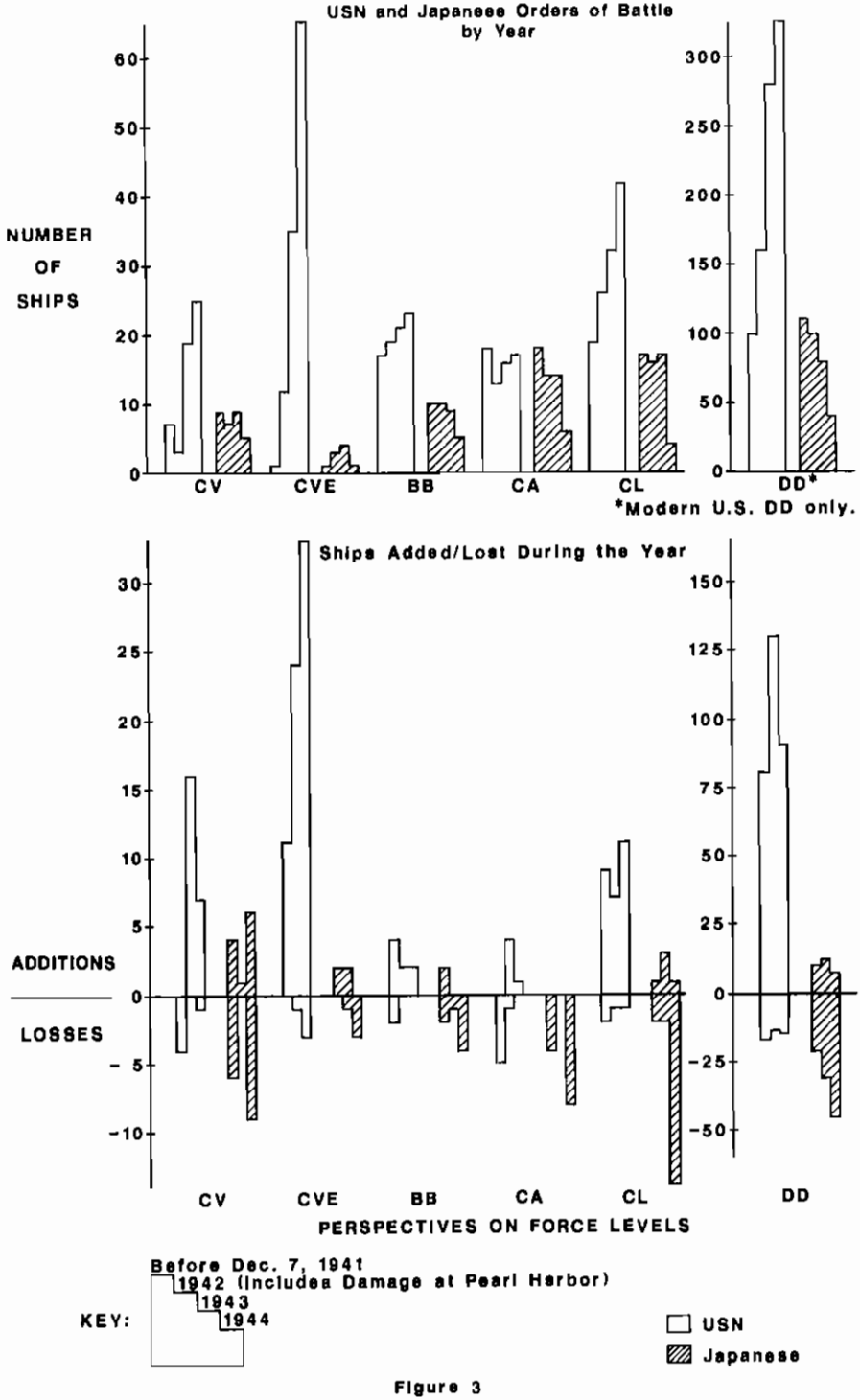

USN and Japanese Orders of Battle by Year
NUMBER OF SHIPS
60
50
40
30
20
10
0
300
250
200
150
100
50
0
CV
CVE
BB
CA
CL
DD*
*Modern U.S. DD only.
Ships Added/Lost During the Year
ADDITIONS
LOSSES
30
25
20
15
10
5
0
- 5
-10
150
125
100
75
50
25
0
-25
-50
CV
CVE
BB
CA
CL
DD
PERSPECTIVES ON FORCE LEVELS
Before Dec. 7, 1941
1942 (Includes Damage at Pearl Harbor)
1943
1944
KEY:
USN
Japanese

Figure 3

Guadalcanal campaign marked the end of the initial period of the Pacific war for a reason: on both sides too many ships were being lost.

The U.S. battle line recovered quickly from losses at Pearl Harbor. All four *South Dakota*-class (1938 program) ships were in service by late 1942. With the slightly earlier *Washington* and *North Carolina*, these battlewagons were put directly into forward combat areas and were the decisive factor in pulling out a favorable end to the initial phase. Without them, Guadalcanal would have been lost.

The U.S. carrier force was as hard hit as Japan's in the initial phase. Japan lost 75 percent of its prewar force; the United States, 57 percent. Japanese carrier air power survived through the initial period only by timely 1942 arrivals, especially the converted fleet carriers *Junyo* and *Hiyo*. U.S. conversions (9 *Independence*-class CVLs) did not reach the fleet until 1943. The single American CV completed in 1942, the *Essex*, handed over on 31 December, should be counted as a 1943 ship. Though U.S. prewar carrier programs, running at an average of one ship every other year since FY 1930, met and then exceeded Treaty limits, losses among their small number nearly crippled the U.S. Navy in 1942. At the end of 1942, only two U.S. CVs were in service in the Pacific. Both had been battle-damaged twice during the year, and their combined out-of-action time was 13 months!

The U.S. "Treaty Cruisers" fought the Guadalcanal campaign. They were the substance of American naval power in the actual combat theater, having fought in four of the five major surface actions during that campaign. They suffered accordingly. Including the *Houston*, sunk in February in the Sunda Strait, 5 of the remaining 18 had been lost by the end of 1942; the *Chicago* would join them in January 1943 off Rennell Island, at the very end of the Guadalcanal battle. In addition, four more were lost to the Navy, each for an entire year, as a result of torpedo hits (three in one night at Tassafaronga at the end of November). Of the remaining eight, three were still under repair from slightly less severe battle damage (*Salt Lake City*, *Portland*, and *San Francisco*), and three were in the Atlantic. After just four months of intense combat, the Navy had less than 30 percent of its heavy cruiser force in hand, and most of them were in the Atlantic. None had been commissioned before 1929. The last one allowed under the Treaty was completed in 1939, and therefore no new ones were ordered before 1940. The force still had not recovered by 1945.

Heavy prewar ordering paid off in battleships, light cruisers, and destroyers. The big 6-inch gun cruisers took over from the 8-inch gun CAs in all the Solomons action of 1943. The 66 DDs added in 1942 all came from the 1940 program: another big prewar building boon. For the three years before 1940, DDs were being added at a steady rate of only eight per year. Had that pace continued into 1940 and 1941, the U.S. Navy, like its Japanese enemy, would have faced immediate operational constraints.

U.S. Heavy Cruisers, 1942: 18 ships.

By 7 December, after one year of war:

Pensacola	damaged
Salt Lake City	damaged
Northampton	sunk
Chester	damaged
Louisville	
Chicago	damaged
Houston	sunk
Augusta	in the Atlantic
Portland	damaged
Indianapolis	
New Orleans	damaged
Astoria	sunk
Minneapolis	damaged
Tuscaloosa	in the Atlantic
San Francisco	damaged
Quincy	sunk
Vincennes	sunk
Wichita	in the Atlantic

Figure 4 shows just how limited U.S. naval operations might have been in the western Pacific without the 1940 building program. In the late 1930s, Congress was giving the Navy a generous peacetime allotment: the London Treaty of 1930 plus 20 percent. The General Board in fact drew up a long-term program based on these Congressional provisions. Translated into a pattern of annual orders, this would have involved one fleet carrier per year for five years (eventually replacing the *Lexington* and *Saratoga*), two BBs a year after FY 1938 (FYs 39 to 42, replacing old BBs), no CAs until FY 46, and an expanded CL program of 4:2:2:3:3:3:2 (FYs 38 to 45). The entire destroyer force hit "block obsolescence" in the early 1930s. In response, 73 modern DDs were appropriated in FYs 31 to 36. Thereafter, the pace slowed to eight DDs per year.

Without the two-year "run-up" from 1940, the U.S. Fleet would have had enough battleships, and perhaps enough light cruisers, for a long war. Every other ship-type would have been short by the end of the initial period. Even with the construction "compressibility" of destroyers, losses could not have been made up before mid-1943. For the rest of the war, the Navy would have limped along with only a dozen CAs, and a fleet carrier force in no way superior to Japan's.

Two operational consequences are implied. First, the initial period would have been followed on both sides (not simply by Japan) by a lull of at least a year. Second, the U.S. Navy would not have had the transcendent carrier air power advantage with which to force its will on the Japanese Fleet. Attrition carrier battles much like those of 1942 (Coral Sea, Midway, Eastern

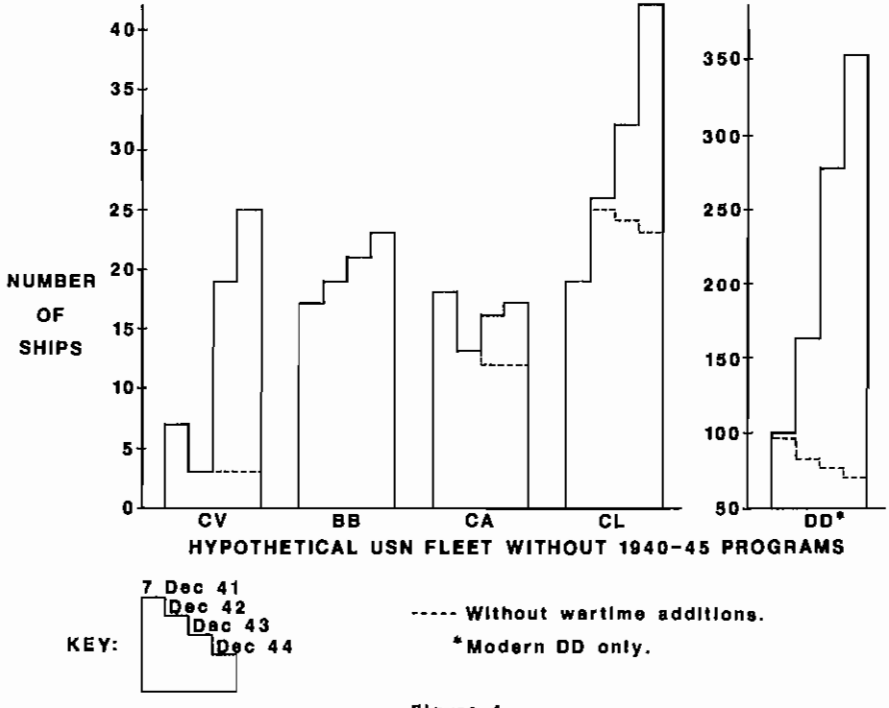


Figure 4

Solomons, Santa Cruz), would have been followed of necessity by surface battles, as in the Solomons. Prewar programs emphasizing battleships (on both sides) would have forced many more battleship actions.

U.S. Aircraft Carriers, 1942: 7 ships.

By 7 December, after one year of war:

Lexington	sunk
Saratoga	twice damaged
Ranger	in the Atlantic
Yorktown	sunk
Enterprise	twice damaged
Wasp	sunk
Hornet	sunk

Simply, the Navy would have had to fight with what it had. It would have taken longer and losses would have been higher. The whole war would have resembled the four months in and out of Ironbottom Sound.

The naval combat around Guadalcanal was characterized by both the relative equality of American and Japanese forces engaged and the intensity of those engagements. An examination of campaign losses, shown below, highlights the larger effect of a period of high-intensity combat on two fleets that at that stage in the war did not have the security of waiting for

replacement units. Ship casualties demanding home shipyard repair lasting beyond the end of the campaign (February 1943) are included.

There were five major surface actions in this campaign:

- Savo Island, 9 August 1942
- Cape Esperance, 12 October 1942
- Guadalcanal I, 13 November 1942
- Guadalcanal II, 14-15 November 1942
- Tassafaronga, 30 November 1942

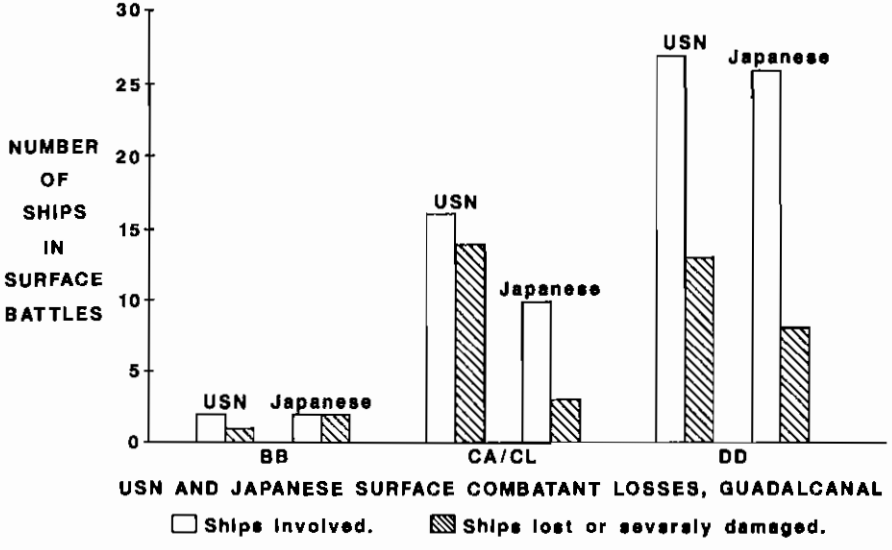


Figure 5

These losses were a significant proportion of forces actually engaged. They also represented a major share of total naval forces available for the South Pacific theater when the battle for Guadalcanal began.

Although the U.S. Navy appears here to have suffered more campaign damage, it was in a better position than its foe to recover in 1943. Its carrier losses were more than replaced in 1943, and eight big, new 6-inch gun cruisers were available by mid-1943 to substitute for lost CAs. All of the damaged CAs were back in service by October 1943. The Japanese carrier force also recovered in 1943, but added only one new flight deck, and for the rest of the war there would be no new battleships or big cruisers. The intensity of the initial period simply could not be sustained by the Japanese. Even the U.S. Navy held back during the first half of 1943 as it waited for new ships of all types to arrive and work up with the fleet.

Combatant Losses in the Late-War Phase

After the Japanese Fleet had been defeated and U.S. sea command was established, U.S. surface combatant losses were still significant. They were

inflicted primarily by land-based air attack. The most effective form of air targeting was performed by kamikazes which were essentially air-to-surface guided missiles, but with human pilots.

During the Okinawa battle in 1945, the following ship casualties were inflicted by land-based air attack:

U.S. Navy Surface Combatant Losses, Okinawa Campaign

Ship Type	Losses	Percentage of Initial Force
CV	3	18
DD	64	34
LST/LSM	23	10

Table 2

The figures indicate operational losses: combatants either sunk or still unrepaired at the end of the war. At war's end, the CV, the DD, and the landing ships were the most valuable fleet units: the heart of the offensive against the home islands. They were also the most vulnerable.

Summary of Insights

Insights from the Pacific war can be used in estimating contemporary naval force requirements. Both American and Japanese naval experience tell us that:

- Initial period operations can be protracted. Japan had planned naval missions that were expected to end within six months. High tempo combat operations, however, continued unabated for 13 months. Contemporary U.S. naval planning should contemplate such an extended initial period of a war.
- Few major surface combatants were added in this period. Fleet reinforcement was driven by the relative emphasis of prewar building programs. The United States added only four new battleships and nine light cruisers in major surface combatants. This reflected a prewar focus on the battle line. Japan, in contrast, added two battleships and four carriers to its fleet. Without the American victory at Midway, the Japanese carrier advantage over the United States would have lasted past mid-1943, forestalling the Southwest Pacific offensive. Both U.S. and Japanese capital ship reinforcements in the initial period can be compared to the awaited addition of two new CVNs to a 15-carrier navy today. These were significant early additions to both fleets. It must be remembered, however, that capital ships demand a building lead time of 5 to 10 years from appropriation to commissioning.

In another critical category of surface combatant, however, Japan fell rapidly behind. The United States added 85 destroyers to the fleet during the initial period, while Japan added only 10. This shortcoming in prewar shipbuilding doomed the Imperial Navy to a diminishing destroyer force for the duration of the war, seriously weakening its battle force escort capabilities.

- Even fewer ships added by late prewar building programs. Late prewar building programs included only the last three appropriations before the war, FYs 1939, 1940, and 1941. During the initial period, the U.S. Navy added only five light cruisers among all major surface ships appropriated from 1939 to 1941. Japan managed to add only a single light cruiser to the fleet from these programs during the initial period. However, the United States added all 85 destroyers appropriated from 1939-1941, and Japan finished 13 of 19 in time for initial period operations.

Destroyers are separated in this analysis from the major surface combatants—battleships, carriers, and cruisers—for one reason: they could be appropriated and built in two years or less. Today, ships called "destroyers" take five years to reach the fleet from the Senate floor. It is doubtful whether a major surface combatant under construction for less than three years would see action in the first year of a war.

- Losses during the initial period can be heavy. By the end of January 1943—just slightly more than a year into the war—the U.S. Navy had lost (out of action for six months or more) 24 percent of its prewar battle fleet, 57 percent of its carrier force, 50 percent of its heavy cruisers (including four out of action until late 1943), 11 percent of its light cruisers, and 20 percent of its destroyers. Japanese losses were equally severe: 20 percent of its prewar battle fleet, 66 percent of its original carrier striking force, 22 percent of its heavy cruisers. The losses among capital ships are especially significant. If, as argued here on the basis of battle employment, heavy cruisers are to be added to battleships and carriers in the classification of capital ships, U.S. capital ship losses in the initial period amounted to 40 percent of the prewar battle force; Japan lost 30 percent. Contemporary U.S. Navy wartime missions should be prepared for high losses if the Navy is used to carry the fight to the enemy.

- Losses concentrated in key initial period missions. All initial period Japanese fleet carrier losses and all U.S. battleship losses were suffered in single operations (Midway and Pearl Harbor). Although the unbalanced losses inflicted in these celebrated battles might seem unusual, heavy ship casualties were the rule in the initial period of the Pacific war. Losses of ships engaged were actually higher if ships put out of action for more than eight months are included as casualties.

The surface battles of the Guadalcanal campaign make a powerful example of how many ships can be lost in a short period of intense action

(August to December 1942). Japan lost both battleships it threw into action, 4 out of 11 cruisers, and 7 out of 30 destroyers: a loss rate of 30 percent overall. The United States had one battleship (the *South Dakota*) put out of action, 13 out of 18 cruisers lost or out of action (including the loss of the *Chicago*), and 9 of 27 destroyers: nearly half of all ships engaged.

- Losses from initial period operations can force a lull in operations until losses are replaced. Many initial period losses sustained by the United States and Japan could be made up. Ships out of action could be repaired, and new ships would eventually be added to the fleet. But the tempo of the initial period of battle could not continue. The United States could afford to take just a short breather: by mid-1943 the big, late prewar building programs were reaching the fleet. Japan, however, withheld its capital ships after Guadalcanal until mid-1944. For 18 months it waited for prewar shipbuilding to reach the fleet.

Today the U.S. Navy would enter a war with a shipbuilding program more like the Imperial Japanese Navy's in 1941 than its own crash programs 45 years ago. Granted, the U.S. Navy today probably need not expect a multiyear sea war, but the possibility of such a war with the Soviet Union cannot be excluded totally and therefore is today in the mainstream of American national security thought. It is, necessarily, a basic yardstick for naval planning. Part of the planning parameters of this "not unreasonable" mission context imply an initial period of operations that could last as long as a year, and a series of engagements in pursuit of naval missions that might well involve heavy ship casualties.

An Approach to Force Requirement Estimation

U.S. naval approaches to estimating force level requirements are dependent upon technical and quantitative analysis. Currently, this approach is not responsive to key force level issues experienced during the Pacific war. Before suggesting an analytic approach that would incorporate these issues, it is useful to summarize the functional areas of analysis that might be involved in estimating force level requirements.

Technical analysis can be broken into four general categories. Because there is no widely accepted set of terms for them, the labels given these categories of analysis are the authors' own.

First is the engineering category which uses basic laws of physics and engineering to describe system performance—a sensor's detection range against a target or the engagement envelope of a missile, for example. The principles of this kind of analysis are well established and its results enjoy a high degree of acceptance and credibility.

Engagement analysis, the second category, assesses system capability, for example, the firepower of a surface-to-air missile system against a raid of

air targets. Engagement analysis, however, must aggregate many aspects of the problem and use implicit representations of processes instead of the explicit portrayals of engineering analysis. Therefore, it may be difficult to "validate" engagement analysis by comparing it to operational experience. Despite its limitations, engagement analysis enjoys general acceptance and reasonable credibility.

The third category, mission analysis, attempts to meld all aspects of naval warfare that affect the performance of a task group in fulfilling a mission measured usually in days—such as a land strike from a carrier battle group. Mission analysis has seldom been subjected to analytic rigor. Like war-gaming, it relies heavily on human judgment. There are no widely accepted methods for analyzing the interaction between warfare areas, so there is much interpretive uncertainty over results. This is true especially if analytic results diverge from traditional warfare notions.

The fourth category is campaign analysis. Its time domain is measured in weeks and months, or even years. The U.S. Navy has done little of this. That which has been done has not been used to address force level issues. There is no established methodology for campaign analysis. A major part of the difficulty lies in the elusiveness of convincing scenarios (or a sequence of scenarios), as much as in an absence of accepted methodology.

A common thread linking these categories of analysis is focus. They all concentrate on the capabilities of U.S. systems and ignore the potential impact of war losses. Yet loss estimates should play a central role in force level thinking. Certainly, forces assigned to a mission must be capable enough to fulfill that mission confidently. Major losses, however, might be incurred during the mission. Such losses might not prejudice immediate mission fulfillment, but they certainly would influence the leaders' confidence about their chances of success in succeeding missions.

The approach suggested by this paper for estimating required force levels begins with the concept of the "not unreasonable case." By definition, this means the most rigorous wartime mission-set compatible with a "peacetime" planning environment for, and broader political expectations of, a future war.

The not unreasonable case of a long conventional war with the Soviet Union has two major force level implications for the U.S. Navy. First, it implies a campaign of not less than a year, long enough to demand a series of naval operations in support of several missions. Second, a year or so of intense operations must be sustained by the prewar fleet. Third, although the initial period of such a war should end within a year, the war itself might continue. Force level requirements must be able to satisfy both the needs of initial period missions and the succeeding conflict context, whether peace, armed truce, or mobilization for a total war stage.

In order to illustrate this case, we suggest a set of war missions. Using engagement and mission-level analysis, we will determine the naval forces required for these missions, and the losses incurred. Finally, we will define a desired capability to pursue another set of missions at the end of the initial period. By relating these three factors, it is possible to calculate the force level range required to support naval missions in the initial period of a war so that sufficient forces remain at its end to conduct later—or postwar—missions in pursuit of broader national war goals.

This illustration has an additional analytic constraint. Naval forces required for any initial period mission must be available for that mission. It is strategic sleight of hand to argue that there are enough ships for a mission, but only if they are concentrated in a single theater. Operational and strategic considerations make it hard to swing naval forces from one theater to another. This illustration assumes a national wartime need for simultaneous operations in support of allies on the periphery of Eurasia. Operations in the Pacific that are within a month of an operation in the Atlantic are "simultaneous" since transoceanic ship movements take time.

Simplified in order to highlight force level considerations, the following illustration examines only carrier battle group combatants—aircraft carriers, cruisers, destroyers:

Assume that a global war between NATO and the Warsaw Pact has erupted, but has not escalated to nuclear war. The initial period of this war—that is, the period of planned operations—is prolonged for several months, but less than a year. During this time, the United States chooses to conduct four major naval operations (missions) with carrier battle groups. All are within range of Soviet land-based strike aircraft. These operations might be land strikes in the Kola or Kamchatka areas. They might be operations in the eastern Mediterranean. They might well be in support of a major amphibious operation along the flanks of the Central Front. The number and size of these missions constitute a realistic minimum for a major war. The likely demands on the Navy could well be much higher if allied war goals were to be sustained over several months.

For each mission, assume a U.S. naval force of 20 to 40 surface combatants. This is typical for a multi-carrier battle force. Assume further that losses sustained during the operation will reach 20 to 40 percent. This outcome would be consistent with U.S. and Japanese task group losses in a number of engagements during the Guadalcanal campaign, and with more recent British task force losses in Operation Corporate. As an inflection to these analogies, a number of studies have indicated that expected U.S. losses increase with force size. In some cases, this results from postulating a more severe threat attacking a larger U.S. force. In other cases, however, it appears to be a function of the larger U.S. force providing the enemy with a "target rich" environment.

It should also be assumed that the National Command Authority wants to keep the option to conduct at least one other major operation at the end of the initial period of the war in both the Atlantic and the Pacific theaters simultaneously.

Number of ships required at the end of the initial period:
20-40 (Atlantic) + 20-40 (Pacific) = 40-80

Number of ships lost during the initial period:

20-40	×	20-40%	×	4	=	16-56
(Force Size)		(Loss Percentage)		(No. of Missions)		

Number of ships unavailable due to non-battle accident:
Assume 3-5% of forces: 2-7

Number of ships required at the beginning of the war to support specified missions:

Number required at end:	40- 80
Number lost in battle:	16- 56
Non-battle losses:	2- 7
Total:	**58-143**

This illustration, of course, is purely arbitrary. It encompasses only carrier battle group forces. Any indication of an expected linkage between an explicit strategy and war losses is avoided by this illustration. This explains in part the wide range of loss outcomes. The authors simply are demonstrating a methodology. There are, however, some intriguing implications.

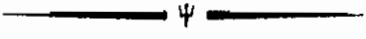
The number of surface combatants—carriers, battleships, cruisers, and destroyers—required by this example brackets the number of these ships in the Navy order of battle today.

There also is recent support for its premises. In 1982 the Royal Navy deployed a task force of 25 major surface combatants—carriers, destroyers, and frigates—4 were sunk and 1 was put out of action: 20 percent of the total force. Today, even relatively modest forces potentially can inflict high damage levels. The Soviet Union, moreover, would be a far more formidable foe than Argentina.

Conclusions

- The U.S. Navy could suffer heavy losses in a future war of the scale, duration, and intensity suggested here.

- No major reinforcements from new construction would be received during the initial period of this war.
- War missions are politically insensitive to fleet size. A smaller, less capable U.S. Navy would be charged with missions as needed, and simply suffer losses with less confidence of success. (Again, the Falklands underscores this political tendency, even for limited operations with less on the line.)
- Even if the Soviet Fleet were heavily attrited, significant U.S. naval forces would be required at the end of the initial period of operations.
- Even with the Soviet naval threat erased, other parts of Soviet military power would still be a challenge to a U.S. Navy supporting allied operations in Eurasia.
- Therefore, U.S. Navy missions must be tailored to expected losses, mission outcomes, and the duration of the initial period. Naval force requirements should be realistic. They should confront both the limitations of shipbuilding programs and the possibility of substantial ship losses in war.



Conference on Military Education and Thought

The Virginia Military Institute will host the annual meeting of the American Military Institute on 14-15 April 1989 in Lexington, Virginia. The conference theme is "Military Education and Thought." Papers that treat the establishment of formal military education, the creation of academies and service schools, or the formulation and institutionalization of military doctrine through military education are invited. Papers may focus on any nation or period of history. Please send proposals before 31 October 1988 to: AMI Conference Coordinator, Department of History and Politics, Virginia Military Institute, Lexington, Virginia 24450.

Could Our Shipyards Cope? If Not, Then What?

Paula J. Pettavino

Some may still believe that Franklin D. Roosevelt pulled the industrial mobilization switch when Pearl Harbor was attacked in December 1941. Anyone believing this is in error. Evidently, error abounds, especially concerning this country's shipbuilding and ship repair industry. Masquerading as truth, this error is often used to justify a policy of neglect toward that industry. With the possible exception of building commercial nuclear reactor plants, no construction or manufacturing has ever approximated the building and repair of large, complex ships.

Briefly stated, the shipyard capability and capacity needed by the Nation to defend itself is inadequate and has no prospect for bettering itself in the foreseeable future.

The cost of special tooling in automobile manufacturing can be dispersed over hundreds of thousands of cars. Specialized machinery for ship construction often must be apportioned over only three or four ships, resulting in a very high cost per ship. A ship requires years to design, years to build. Once completed, especially a fighting ship, she is expected to serve a useful life of 30 years or more, during which time the design must prove flexible enough to allow modifications unforeseen when the ship was new.[1]

The myriad skills and facilities used to construct a ship—the plant knowledge of naval architecture, production skills, and managerial talents—are of small worth if not being used to build ships. Though there are some exceptions, on the whole, shipyards cannot be converted to produce an alternative commodity and have little value unless there is a demand for the product. When product demand slackens, the talents and plants fade away.[2]

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Let us examine the tasks to be performed by shipyards during a national emergency. Those yards would be required to:

- reactivate the reserve fleets;
- hasten the completion of ships under repair;
- carry out routine ships' maintenance;
- accelerate the completion of ships under construction;
- repair ships that are battle-damaged; and
- build new ships.

This is a formidable list of tasks, tasks that would have to be performed both rapidly and well. For example, during a mobilization period, just before or just after a war had begun, hundreds of idle ships would have to be made ready for service simultaneously. Though the ships most critically needed are already assigned to yards for activation, for most of the ships, unfortunately, there is no apparent plan that assigns them to yards for this purpose. Indeed, the materials and equipment needed to prepare ships for sea are scarce.

The three broad classes of shipyards are:

- privately owned shipbuilding yards that could perform part of each task listed above;
- privately owned ship repair yards that could modify much of the commercial fleet for military service and breakout, and ready for service the ships in the reserve fleets; and
- government-owned shipyards that would be fully engaged in the activation, maintenance, and repair of the Navy's ships.

Today there are 24 privately owned yards holding or actively seeking construction contracts for large oceangoing or Great Lakes commercial and naval vessels. In 1982 there were 27 such yards. Of the surviving 24, only 18 have shipbuilding contracts. In 1982 there were 83 privately owned repair yards. Currently there are 50.

There are nine public shipyards, eight belonging to the Navy and one to the Coast Guard. They cannot be expected to build, reactivate, or repair merchant ships.

It is clear that, as measured by physical assets, the size of the shipyard mobilization base is shrinking, as is the number of workers in those yards. In the last six years the shipyard work force has fallen by more than 28,000 employees, or 25 percent nationwide. The west coast has experienced a disaster, with a 51 percent loss in shipyard jobs.

Moreover, the character of the industry is undergoing rapid change. Nearly 60 percent of the workers in private building yards are employed by only three companies: Electric Boat, Newport News, and Ingalls. Another 25 percent are spread among twelve smaller yards. Few of these yards, which are engaged mainly in construction and repair for the Navy,

have reasonably secure work loads. The remaining 15 percent of the work force and their employers seek any jobs they can find.

Of the 74 privately owned shipyards, almost one-half are very small, with fewer than 300 employees each. Many have fewer than 150 production workers, and a significant number have no facilities under their direct control or ownership. Small yards with only one program continually face difficult decisions in the allocation of their labor force because demands for occupational specialities change as jobs progress. For example, in a robust economy, naval architects, after completing their portion of a job, would proceed to the firm's next project as the welders picked up the bulk of the work on the ship in progress. If there are no other programs in sight, must the yard then release its labor? This high concentration of the industry in a few large firms is an economic and military vulnerability requiring little comment.

Some Assumptions and Some Questions

For the moment, let us assume that there are enough shipyards for the nation's mobilization. Should we also assume that there are sufficient skilled production workers, engineers, and managers? Presumably, given a national emergency, designated reserve ships will be reactivated by the shipyards within 30 days of the order to begin. Most of the ships in the Ready Reserve Force would be towed to the shipyards during the first 10 days of mobilization. By the tenth day this would peak at well over 500 ships.

As the ships are made ready for service, it is expected that the number of vessels in the yards will fall rapidly, unless, of course, the naval and merchant fleets suffer severe battle damage in the early engagements. Should this be the case, then a substantial additional work load would be placed on the yards. In this regard it should be remembered that only 10 months after Pearl Harbor, the west coast yards were so overloaded that the Pacific Fleet had to send some of its most badly damaged ships to the east coast for repair.

There are some favorable, and possibly erroneous, assumptions we could make. First is the supposition that yard workers employed at the moment of mobilization would be available immediately for mobilization work. Should the jobs they are working on at that time be considered less urgent than the need to make ready some long-idle ships? Second, should we assume that worker skills are homogeneous; that an electrician and a welder are interchangeable, or that a worker skilled in the construction of a certain kind of structure or part of a ship would be equally skilled in the repair of battle damage spread indiscriminately across a ship's structure and systems? Third, can we assume that workers could be readily relocated? Does that correspond with current American family practices and values?

Where the Money Goes

The percentage of the Navy's shipbuilding budget actually being spent in the shipyards is declining. As the new ships become ever more complex, most of the money which once went into the ship is now spent on outfitting her with various advanced systems. Under the 1986 naval construction budget, only 36 percent was contracted with shipyards as compared with nearly 50 percent in 1981. Thus, the number of on-site shipyard workers required to meet the needs of the Navy in *peacetime* is declining, partly because of increased yard efficiency and partly because of the changing nature of ships under construction. (Merchant ships, of course, are very different from fighting ships.)

Most of the funds in the Navy's current five-year shipbuilding plan are scheduled for the purchase of nuclear-powered ships, other high-technology combatants, and some large (and not very simple) support ships. Many of the shipyards in need of work are incapable of building such ships and, in the absence of new work, survival prospects for about one-half of the yards are bleak. The consequence will be further loss of capability in the shipyard mobilization base.

Where the Manpower Goes

It seems unlikely that workers in the nuclear construction and repair element of the industry will be diverted to nonnuclear mobilization tasks, for, no doubt, submarines and aircraft carriers will have the highest priorities. At the close of 1986, the total number of shipyard production workers engaged in the construction and repair of nuclear vessels was 38,500, or nearly half of all those in the industry. That part of the force potentially usable for most mobilization work, the nonnuclear construction and repair staff, numbered 46,300. By the end of 1989, employment in nonnuclear construction and repair is projected to slip to about 42,000 employees.

As U.S. shipyards become more productive and efficient, ship construction continues to require ever fewer workers. Despite the appearance that shipbuilding has become, in part, an assembly-line process—where complete modules of ships are built and installed—it is no such thing. Not only do today's small building programs preclude duplicating the mass production of World War II, but the ships themselves are much larger and more complex than they were nearly a half century ago. In consequence, shipyard worker skills, as well as those of managers and engineers, have become highly specialized, with primary emphasis on new construction processes and techniques. Workers in steel fabrication, pipe shops, painting facilities, unit assembly shops, and the like rarely leave their facilities. Thus, it is unlikely that workers trained and experienced in new construction under

modern processes have ever been aboard a completed ship in the water, much less possess the skills needed to repair the kind of damage ships are likely to incur.

The shipbuilding and ship repair industry presently consists of a few large, sophisticated yards capable of building and repairing major naval vessels (at present the 10 largest shipyards employ 88,000 workers, or over 82 percent of the total employment), and a larger—but not large—number of small, specialized ship repair companies are able to carry out the currently needed level of naval ship repair. The number of people doing other work and available, motivated, and properly skilled for shipyard work may prove surprisingly small.

Here are some important differences between the industry we have now and that whose work of nearly half a century ago we admire so much.

The Old Days and the New Ones

The first important disparity between the two time periods is that the shipbuilding industry at the time of Pearl Harbor had been gearing up since 1933. Today's industry is clearly downshifting.

There is a simple building formula that is useful to weigh the effectiveness of shipyard capacity. A "generic freighter" requires about one million man-hours to build, or 500 production workers per ship per year. A "generic combatant (frigate)" requires 2.5 million man-hours or 1,250 production workers per ship per year. In an unprepared economy, with neither pre-engineering of ships nor stockpiling of weapon systems, the first deliveries of merchant ships would take about 18 to 27 months from the word go. For combatants, the delivery times would be on the order of 28 to 39 months. Of course, the throughput rate would improve over time as production geared up and skilled labor became available. However, if the contingency required new building immediately, as was necessary in World War II, it would be a long time before the new ships were available to any combat commander.

During the peak construction year of 1943, the number of ships produced in U.S. yards equalled the number built during the 25 years before the war. This was made possible, in part, because manpower was available and did not become scarce until the last two years of the war, 1944–45. At the time of the buildup, our country was still suffering from the Depression's high unemployment. (Funding for expansion of naval building before the war gained considerable political support because shipbuilding was a labor-intensive activity.) According to a survey of privately owned U.S. yards, the large pool of unused labor that was available then no longer exists. Tens of thousands of women left their kitchens and entered the work force during World War II. Today, their successors are already in the work force—and

many of them are already working for the defense industry. Farms, formerly big consumers of labor, now employ only a miniscule number of workers. That source of manpower, which was so important 40-odd years ago, is likely to prove a dry well when tapped.

High wages drew labor to the shipbuilding industry during the Second World War. One should no longer rely on that attraction. In December 1986, weekly wages in the construction industry averaged $468.63 for a 36.9-hour week ($12.70 per hour) compared to $481.15 for a 41.3-hour week ($11.65 per hour) in the shipbuilding industry. (In the aircraft and parts industry, weekly wages for a 43.5-hour week are $569.85 at $13.10 per hour.)[3] Further, the turnover rate in shipbuilding is aggravated by the absence of predictable, stable work loads.

The growing immobility of labor is an additional problem for shipyards. When facilities close, workers tend to seek employment in other industries in the immediate area, rather than relocate.[4] A recent survey of privately owned shipyards in both metropolitan and isolated areas substantiates the difficulty in recruiting workers from outside the geographical area of a shipyard, even when they are offered an attractive wage and fringe-benefit package. In addition, workers with certain skills are plainly hard to come by. Regardless of the geographical area, welders seem to be plentiful, but electricians are always scarce. This lack of mobility and scarcity of skills would force the yards to hope for good results from semiskilled workers and accelerated training programs.

The average worker is 20 percent efficient after three months on the job, 40 percent after six months, 50 to 60 percent after twelve months, and 75 to 80 percent after two years. In practice, productivity growth often falls into the negative range during periods of training when the efficiency level of trained journeymen is lowered, while new members of the labor force are being trained. After several years of trade school it takes about three and one-half years to train a welder or machinist to the journeyman level, and four years to do the same for a shipfitter or an electrician.

Shift work and overtime would certainly help in mobilization, but there are costs to be paid here, too. Generally, prolonged overtime reduces an individual's efficiency. As measured in hours: 8 hours of overtime per week yields 90 percent efficiency; 16 hours—75 percent; 24 hours—50 percent; and 32 hours—25 percent. One reason for the high rate of shipyard absenteeism and turnover during World War II was the sheer exhaustion of the workers.[5] Even so, it is probable that manpower shortages could be resolved with training programs because the delivery of those components requiring long lead times could take longer than the time to train new workers.

Bad Now. Worse to Come?

In 1985 Newport News estimated that it bought more than 250,000 separate items from approximately 3,500 suppliers.[6] Because the commercial market for ships is essentially barren, the number of suppliers is far fewer than it was. This problem is worsened by the general competition of all heavy industries, not only shipbuilding, for the products of the same few suppliers. Therefore, although in peacetime two domestic suppliers of large forgings may appear to be sufficient, they could never support the demand that would arise with mobilization.

Some examples of where we are currently deficient in the capability to produce major equipment for ships are:

- reduction gear capacity which has severely diminished along with the commercial marine market;
- steam turbine capacity which is down nearly to zero;
- and—only since December 1987—we are no longer able to build large direct-drive (non-geared) electric motors.[7]

True, there were shortages of components during World War II as well, however, with the more simply designed vessels of the time, suppliers could more readily adapt whatever was available. Thus, some destroyer escorts of that time were powered by steam engines, others with diesels, some were armed with 5-inch guns, and others with 3-inch guns.

The technologies available for ship propulsion during a mobilization would probably be limited to geared drives. The two prime mover technologies available in quantity would be diesels and gas turbines. But, the capacity to build large diesels in the United States is small and declining. The production of gas turbines is in direct competition with that of jet aircraft engines, since both are built on the same production lines. The current level of jet engine production uses the full resources of present suppliers.

Further, technological advances require the import of many materials or parts either unavailable or in very short supply in this country. (The situation is further complicated because less than one percent of these critical materials are shipped in U.S.-flag ships, thereby creating an additional dependence on foreign sources—but that is another story.)

A look at the industry supplying auxiliary equipment reveals the general decline in the ability of the United States to produce industrial gearing, electric motors, and generators. Materials, forgings, castings, and bearings are in short supply from U.S. producers. Each critical item sought by the Navy or a shipyard for use on a U.S. ship competes with the needs of other would-be purchasers for the same component, from the same supplier.

Perhaps the most significant difference between U.S. shipyards of the 1930s and those of today is the changed nature of the international

environment. In 1940, about 200 merchant ships were on order in privately owned U.S. shipyards. Today there are none. Since 1970 the worldwide division of the commercial shipbuilding market has changed drastically, as the following table illustrates:

	1970	1986
Japan	45.0 percent	36.8 percent
Sweden	8.0	
West Germany	6.0	1.7
Spain	5.0	2.1
United Kingdom	5.0	1.2
United States	3.0	1.1
South Korea	0.3	15.9
Taiwan		4.4
China		2.7[9]
Others	27.7[8]	34.1
Total	**100.0 percent**	**100.0 percent**

For many reasons, the shipbuilding industry in this country has not been competitive on the international market since 1850 and is, therefore, unable to match the prices offered by South Korean and other overseas yards. What this has meant to us, especially since World War II, is that without naval and subsidized commercial building contracts, there can be no American shipbuilding capacity.[10] The question then is, how does an industry that is facing certain decline continue long-term strategy for business development?

The problems of American shipbuilding are not easy to solve. If there were no national security need for ships, there would be no need for the shipbuilding industry, and there would be no lamenting its demise. However, ships and, therefore, an industry able to build them, are essential for the defense of the country. Yet, there is no consensus as to what we should do to sustain the industry or even, surprisingly, whether it should be sustained.

Even though we do not have agreement within either the Government or the academic and think-tank arenas in which defense issues are discussed and decided, there are things the Defense Department and, more specifically, the Navy, can do to help sustain the country's shipbuilding industry.

The first thing is to assume a mental attitude towards the need to be able to build new ships and repair old ones similar to the attitude the Navy assumes within its ships towards damage control. That is, it is wiser to mobilize as closely as possible to the *fear* of what might happen rather than hope that any potential conflict will require only the level of capacity that has been maintained. It is this very wisdom which impels the Nation to

maintain powerful armed forces in the first place. It is unwise to assume that the enemy will be unwilling to harm us in a situation for which we have chosen to be unprepared.

Two practical acts are available to the Navy and the Defense Department now. The first is to recognize as essential criteria (for contract awards), factors other than that of the lowest bid. This would help the remaining west coast yards (where the cost of living, hence wages, is higher than in some other places) to build enough ships so that they can stay in business and be available should an emergency befall us.

The other is to ease the burden on all yards anxious for naval work. For example, yards bidding for such work must justify every calculation of manhours and provide at least three quotations for all items of material and equipment. Every element of overhead cost also must be explained and justified.

As a result of such requirements, one private shipyard competing for the recent AOE program presented a proposal of approximately 4,000 pages delivered in eight large three-ring binders. All bidders produced similar proposals. Yet only one of them won the contract. Surely, the Navy can help its shipbuilders survive by cutting away such expensive (and usually unrewarded) practices.

The patient is badly injured and acts such as these are only first aid. But first aid may be enough to keep the patient alive until the defense and defense-interested communities can develop sufficient consensus to allow decisive action.

The decisive action needed is a step which balances the public consensus that it is proper for us to have a powerful navy with the fundamental contradiction that simultaneously we are content to be weak in the other elements of our maritime strength, commercial shipping and the shipbuilding industry.

The current American maritime structure is like a beautiful flower without a substantial root system. If we do not strengthen the roots, the flower is in danger of perishing.

If this means we must subsidize the industry, then let us develop a federal plan and get on with it. The matter is not one to be seen only as a matter of the marketplace in a capitalist society, of an industry which can be sacrificed for its lack of competitiveness. Rather, our need for the shipbuilding industry is as basic as our need for a powerful standing Army, Navy, and Air Force.

By ensuring the existence of the shipbuilding industry, we may be paying for something we do not need. By permitting it to pass away we may avoid

wastage, but in doing so, we may also do away with an industry essential to our country's survival. The choice is ours.

Notes

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2. Fassett, pp. 2, 3.

3. U.S. Dept. of Labor, Bureau of Labor Statistics, *Employment and Earnings* (Washington: March 1987), pp. 82, 83, 88, 89.

4. Jacques Gansler, *The Defense Industry* (Cambridge, Mass.: The MIT Press, 1982), p. 189.

5. Informal survey conducted by the Shipbuilders Council of America, April 1987.

6. U.S. Congress, House, Seapower Subcommittee, *Current Status of Shipyards*, Hearings (Washington: U.S. Govt. Print. Off., 1974), p. 855; Jim Hessman, "Anatomy of a Ship," *Seapower*, July 1986, p. 30.

7. Specific information on the status of the shipbuilding supplier indnstry is derived from discussions with allied industry members of the Shipbuilders Council of America.

8. Industrial College of the Armed Forces, *The United States Shipyard Mobilization Base: Is it Ready for War?* (Washington, D.C.: National Defense Univ. Press, 1984), Mobilization and Defense Management Technical Reports Series, Mobilization Studies Program Research Paper, p. 12.

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10. Cole, pp. 3, 4; John T.Hayward, "Shipbuilding: Problems Beset the Navy's Program," *Government Executive*, June 1974, pp. 81-83.

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"But in its relation to strategy, logistics assumes the character of a dynamic force, without which the strategic conception is simply a paper plan."

Commander C. Theo Vogelgesang, U.S. Navy
"Logistics—Its Bearing Upon the Art of War"
Lecture, Naval War College, Newport, R.I.
Published in the U.S. Naval Institute *Proceedings*,
v. 30, no. 1, 1913

The Security Dilemma

Captain E. D. Smith, Jr., U.S. Navy

When one is ingenious, he can obtain secret information about everything.
Sun Tzu, c. 400 B.C.

We should begin by recognizing that spying is a fact of life . . . .
Ronald W. Reagan, 29 June 1985

Safeguarding classified or sensitive information in an open democratic society is extremely difficult. With over 4 million individuals having access to classified material, the likelihood that some of this material will be provided to our enemies, through error or design, must be considered very high.[1] The Walker spy case demonstrated that serious damage to our security can be caused by a few individuals with access to sensitive information. The Walker spy ring was comprised of retired Navy Warrant Officer John Walker; his brother Arthur Walker—a retired lieutenant commander; his son, Navy Seaman Michael Walker; and a retired senior chief radioman, Jerry Whitworth. Spanning a period of at least 18 years, this ring of spies, orchestrated by John Walker, freely provided a wide variety of classified material to the Soviet Union for monetary compensation. They were finally caught, arrested and sentenced in 1985, following an FBI investigation of the claims by John Walker's former wife that he had been a spy for years.

Of significance in this case was the fact that Walker and his cohorts were not caught by the security "system" they operated within—the various rules, procedures, and practices established for the control and safeguard of classified material. If Barbara Walker had not come forward, it is doubtful we would know about Walker's activities—considered by many to be the most damaging ever uncovered.

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While the documents and publications provided to the U.S.S.R. by the Walker ring were significant disclosures, the most serious damage probably resulted from the sale of cryptographic key material to the Soviets, which may have allowed them to read our classified message traffic and decrypt our secure voice circuits over a 15 to 18-year period. Although we will never know with certainty all of the messages that the Walker ring gave the Soviets access to, the testimony of a Soviet KGB defector, Vitaly Yurchenko (who subsequently redefected to the U.S.S.R.) indicates that over a million messages were involved.[2] One million messages equates to over 150 messages per day for 18 years, so if Yurchenko's statements are true, the Walker "take" was truly a gold mine for Soviet intelligence. As the Director of Naval Intelligence has testified, the Walker spy ring provided the Soviet Union with information that would have had ". . . powerful war winning implications. . . ." if war had broken out during the period of their espionage activities.[3]

After the early revelations of the Walker case, which generally coincided with the arrest and subsequent trials of the major participants, professional military interest in the case focused on the damage assessments in an attempt to understand what had been passed to the Soviets and then to determine what we could do about it. The Navy took several administrative steps that included the much publicized 50-percent reduction in security clearances, tightening up on "need to know" requirements for access to classified material, establishment of standards and investigative requirements for security and communications personnel, and reduction of classified holdings and other measures designed to improve security controls.[4] In June 1985 (Walker was arrested in May 1985), the Department of Defense Security Review Commission (informally known as the Stilwell Commission after its chairman, General Richard G. Stilwell) was chartered by Secretary of Defense Caspar Weinberger "to conduct a review and evaluation of Department of Defense security policies and procedures."[5] Their report and recommendations were duly submitted on 19 November 1985.

That the Walker case was not an isolated incident of espionage was proven immediately after the Stilwell Commission made its report, by the arrest of another Navy spy, John Jay Pollard, on 21 November 1985. Pollard, a naval counterintelligence analyst, was charged with selling classified documents to the Israelis. In the following year we learned about the case of Marine PFC Clayton Lonetree and other U.S. Marine guards who were alleged to have allowed Soviet agents to enter the U.S. Embassy in Moscow and possibly other locations. These cases suggest that we should be cognizant of, and continually concerned about, the possibility of espionage being committed by U.S. citizens.

The issue here is that, in spite of the real damage sustained by us from these espionage cases, we simply do not seem to be seriously concerned about

the necessity for stringent security measures. Three years after the promulgation of the Stilwell Commission's report and the introduction of some of the security-related measures indicated above, it appears we have reverted to a "business as usual" approach to security. That is to say, we are doing little about it. The impact of the Security Awareness briefings that were required in the aftermath of the Walker investigation has faded along with the interest of our commanders. The inconvenience of searching personnel for classified material when they depart our ships or facilities has resulted in curtailment of that security measure, even in commands that profess a serious concern for security enforcement. Uncontrolled use of copy machines continues unabated at most naval commands, and limited access to classified material based on "need to know" is rarely practiced. While there are individual commands and senior officers who are convinced of the threat and have actively pursued or imposed security measures within their span of control, these efforts appear to be the exceptions, not the rule. Mere adherence to the administrative "letter of the law" is not enough to protect national security. We need regulations and procedures that are effective, practical, and universally understood throughout the Navy and other branches of the military.

Effective security is difficult to develop and implement. That which enhances security generally has a negative impact on efficiency. Incoming traffic is detained when ID cards are checked at base entrances. The search of briefcases taken out of secure facilities may cause pedestrian traffic jams. If classified documents are found in a briefcase, the subsequent investigation takes time and manpower, both of which are often in short supply. A security-related operation, like any other operation, requires the use of assets. However, unlike some other operations, there is no identifiable payoff for security enforcement and there is usually no real proof that the time and manpower spent on security have been effective. This is one reason why we pay lip service to directives on security while searching for ways to ease the impact of these directives on our commands.

In many instances, the execution of security measures carries with it the implication that we cannot trust one another. All of the 4 million or so individuals with security clearances have transacted a personal contract with the U.S. Government stating that they will safeguard the classified material to which they are given access. As Americans, the idea that someone we know will betray that trust is abhorrent to us. We would no more consider our fellow workers to be potential spies than we would consider our neighbors to be potential murderers. In general, we trust people and, as has been demonstrated in the Jonathan Pollard espionage case, we are reluctant to report our suspicions of fellow workers, even when the evidence is overwhelming. Pollard was a civilian intelligence analyst working in the Navy's Anti-Terrorist Alert Center. A fellow worker had observed him

removing large quantities of classified material from his office over a period of several months. The co-worker finally became suspicious after hearing a security awareness lecture about the Walker case and reported his suspicions to the Naval Investigative Service (NIS). Based on this tip, NIS agents put Pollard under surveillance and observed him taking classified intelligence documents from his office to his car for subsequent transfer to the Israeli Embassy. A joint NIS-FBI investigation led to Pollard's arrest in November 1985 and conviction for espionage in March 1987. Significantly, the fellow worker who provided the "tip" on Pollard reportedly turned down an offer of a cash reward because he did not want it known that he had informed on his co-worker.

Given these predilections and the large number of people with access to classified material, what can we realistically do about security? First we must decide whether or not there is a real and significant security problem. A scan of the public record on foreign intelligence presence in the United States, along with a sampling of recent espionage cases within the Navy, indicates that, in fact, there is a security problem of massive scope.[6] In the words of former Assistant Secretary of Defense Richard Perle, "The free world today is confronted with the most audacious, well-run campaign in modern history of illegal trade diversions, espionage and the acquisition of publicly available material."[7]

The first step in countering this problem is recognizing it. The Stilwell Commission attempted to do this by examining current DOD security practices and making recommendations for improvement. Because of either resource constraints or bureaucratic inertia, we have not followed through on those recommendations. Some of them deserve a closer look.

In developing a plan of attack, we should look for measures that are both effective—that promise some payoff for enhanced security—and practical. To be practical, the measures must be manageable, within reasonable costs, and have a low or minimal impact on the overall operation of the facility. Keeping all classified documents locked in a safe would be the most effective means of security, but not very practical. On the other hand, although posting signs about security would be inexpensive, with minimal negative impact on the facility operations, its effectiveness is doubtful. The measures we seek lie somewhere in between.

We might want to start with the Walker case and particularly with the *modus operandi* of the principal participants. While stationed at COMSUBLANT in Norfolk, John Walker used a Minox camera to photograph documents at his desk. At other times, he took documents home to be photographed. He has stated in testimony that had he been subjected to the possibility of a random search while leaving the base, he would not have attempted to take classified material home. Jerry Whitworth and Michael Walker routinely walked off their ships with classified documents.

In Michael's case, the quantities of classified material he removed were often large. If either of these individuals had been subjected to a search on the quarterdeck before departing, their actions might have been deterred.

Random searches of briefcases and other containers being taken from facilities where classified material is stored can be an effective deterrent to blatant espionage. Such searches will not detect all thefts of classified material, but the possibility of discovery will serve as a deterrent. The Stilwell Commission recommended that all briefcases and personal belongings be subjected to search upon both entry and exit from DOD installations.[8] While searching all containers might be more effective than random searching, facilities with high densities of personnel may find this impractical. From the standpoint of deterrence, a thorough search of random individuals may, in fact, be more effective than cursory searches of all personnel. Random searches conducted throughout facilities having unguarded or multiple exits will also increase the risk of discovery.

In order to properly conduct the confiscation of unauthorized classified material, should it be discovered, procedures must be promulgated, and security personnel must be trained. Normally, this should include taking the individual and the confiscated physical evidence to a nearby room for an initial investigation by the facility security officer or NCO. If, after further examination of the situation, a purposeful security violation is considered likely, the case should be turned over to the local NIS office for action. (Of interest, in the Pentagon, checks of briefcases and other containers are made only on the way in; no checks are made on the way out.)

In a similar manner, random searches of vehicles departing naval bases can also be conducted under the same kind of ground rules. Discovery of classified material in the custody of an individual without a valid courier card should be considered reason enough to turn the case over to the local NIS office for further investigation. Such searches are not needed weekly, nor with any particular periodicity. It is the randomness of the search that creates a risk to the would-be spy.

Random searches appear to be both effective (as a deterrent) and practical (low cost, with minimal impact on the operation if conducted properly). While the Director of Navy Security Policy told a Congressional committee in 1985 that the Navy had been asked "to beef up their random inspection of papers and articles carried by personnel entering or leaving Naval commands,"[9] personal observation suggests this is not being done universally. Some commands and facilities that implemented random search programs have discontinued them after receiving complaints. A certain amount of inconvenience should be tolerated when the payoff is enhanced security.

Another potential tool in reducing security leaks is the polygraph examination. While the effectiveness of the polygraph has been the subject

of debate, NIS considers it to be ". . . an excellent deterrent to those considering involvement in espionage-related activities, and . . . another means of indentifying persons who have already committed themselves to such activity."[10] Polygraph examinations will continue to be used for individuals with access to particularly sensitive information, but there is no way that the limited number of qualified polygraphers currently employed by the Defense Department can examine all 4 million clearance holders. This fact was recognized by the Stilwell Commission, which concluded, nevertheless, that "It would also be desirable . . . for persons cleared at the SECRET and TOP SECRET levels to face the possibility of a randomly administered polygraph examination at some time during their careers."[11]

Since a major expansion of the polygraph program is unlikely, we should develop more practical alternatives. A program for random security interviews with personnel who have access to the more sensitive categories of classified material, such as those with top secret clearances, could provide the same deterrent effect. The interviews could be done periodically by NIS or command security personnel, with the names of individuals to be interviewed drawn randomly from a list of cleared personnel—as has been done with random drug urinalysis. The questions could be the same as those posed during the security polygraphs, that is, directed specifically to counterintelligence issues.[12] The function of this interview, as in the case of random searches, would be to deter. While the hardened or trained spy is unlikely to confess to espionage under simple, straightforward questioning, such interviews may provide the basis for further investigation of either the interviewed individual or his fellow workers.

The effectiveness of a random security interview program is dependent upon the interrogative skills of the interviewer, but the very existence of such a program should act as a psychological deterrent. The assets required to conduct such a program are minimal; one interviewer for a few hours per month or quarter. As a measure to enhance security it seems to be both effective and practical.

Since both of the security measures suggested are designed primarily to deter, they should be advertised and promulgated for full impact. The third suggested measure is a security awareness program, one that provides personnel with an understanding of the security threat posed by a variety of foreign intelligence organizations, as well as a general understanding of the security program and procedures in force at their installation or facility. A key recommendation of the Stilwell Commission was that DOD improve the quality of such programs.[13] A Senate committee examining the espionage threat came to a similar conclusion, adding that such programs are often insufficiently tailored to the needs of their audiences. As the committee report stated, "the usefulness of such material is illustrated by the fact that once the U.S. Navy began to improve its security awareness briefings, after

the Walker case, co-workers of Jonathan Pollard noted his unusual [illegible] of document requests and alerted authorities."[14]

Naval commands are currently required to receive an "operations security" briefing once annually. Unfortunately, these briefings are often *pro forma* lectures which meet the administrative requirement without really enhancing the command's understanding of the nature of the threat. The security manager at each facility should develop a security awareness program tailored to the needs, location, and circumstances of his command. Such briefings need not be boring and can include case studies of real situations that personnel will relate to.

When reading about the Walker case and the ease with which the participants were able to operate, many people wonder why the principals in that case were not caught earlier by "the system." How was Michael Walker able to leave the U.S.S. *Nimitz* carrying large quantities of classified documents? Why was Jerry Whitworth never questioned about his extravagant life-style? The fact is, procedures for handling classified material are easy to subvert from within unless everyone is involved. As the Director of Naval Intelligence has testified, "The ultimate vulnerability of cryptosystems and all procedures designed to protect sensitive information lies at the human level. . . . No system ever designed can be invulnerable to the corrupt, cleared individual who has access . . . we depend on an individual's integrity and deterrence of the law to ensure that this trust is fulfilled."[15]

In addition to the security awareness program outlined by the Stilwell Commission, which would primarily describe the security threat from foreign intelligence services, their *modus operandi*, and appropriate case studies of actual examples, the security awareness program should also include information about the facility security program. Since the primary intent of a random search and a random security interview program is to deter, the programs will need to be described. Deterrence works only if the threat is understood. Discussing these procedures openly, in the context of an overall security awareness program, should also make personnel aware of the need for such measures and, hopefully, lessen their resentment of the inconvenience they may suffer as a result of these measures.

Part of this program should focus on the classic, behavioral profiles of a spy and patterns of activity which should trigger suspicion on the part of fellow workers or supervisors. While these "indicators" are not observed in every espionage case, they do provide a general set of guidelines for activity that warrants a second look. The classic indicators include: unexplained affluence or major change in financial status; attempts to gain unauthorized access to classified material (beyond legitimate need to know); removal of classified material from the facility; and unexplained or regular foreign travel.[16]

Another part of a security awareness program should focus on what to do if our people suspect that they have been approached by foreign intelligence personnel or have suspicions about other facility personnel or procedures. A "spy" hotline, similar to the DOD Hotline for Fraud, Waste and Abuse, offers a simple, inexpensive, and practical solution. The telephone numbers of facility security personnel and the local Naval Investigative Service office should also be widely promulgated.

As security measures go, the security awareness program is probably the most important. It promotes personal responsibility for security, bringing it to the human level, explaining why people should be concerned, what they should look for, and what they can do about it. As indicated above, it can also set the stage for further active security measures, such as random searches and interviews. It is important, however, that security awareness not be considered a short-term goal. Would-be traitors and spies will always be with us; the threats they pose deserve continued and aggressive actions to keep security awareness visible.

Command involvement is the key to ensure that attention to security is a continual process. The Stilwell Commission report recognized this and one of their findings concluded that "The key to genuine improvement in DOD's security posture is continuing, pervasive oversight by commanders and supervisors at all levels."[17] Commanders and supervisors who support command security programs, becoming personally involved in developing security measures tailored to their commands' requirements, demonstrate to their subordinates the necessity for taking the security system seriously. This is vital to the success of any security-related program.

The three security measures outlined above—random searches, random interviews, and a security awareness program—provide the core for an active security program that is both effective and practical. Until the Navy or DOD directs the implementation of these or similar measures, the security of our classified information is being left basically to individual commands and organizations. As the Walker case amply demonstrated, the impact of espionage operations is not solely contained in the command where the spying originated. Indeed, in the Walker case, the effect was and continues to be felt worldwide. If we are to get serious about protecting classified information and preventing future Walkers or Pollards from operating, we need to change our attitudes towards security and not only recognize the threat, but do something about it. Implementing the measures outlined above would be a beginning.

Notes

1 U.S. Congress, Senate, Committee on Armed Services, Subcommittee on Manpower and Personnel, *The National Security Protection Act of 1985*, Hearing (Washington: U.S. Govt. Print. Off., 1985), p. 13.

2. U.S. Congress, Senate, Select Committee on Intelligence, *Meeting the Espionage Challenge: A Review of United States Counterintelligence and Security Programs*, Report (Washington: U.S. Govt. Print. Off., 1986), p. 103.
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4. U.S. Congress, House, Subcommittee of the Committee on Government Operations, *Counterintelligence and National Security Information*, Hearing (Washington: U.S. Govt. Print. Off., 1985), p. 93.
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6. House Subcommittee of the Committee on Government Operations, pp. 80-91.
7. U.S. Congress, Senate, Permanent Subcommittee on Investigations, Committee on Governmental Affairs, *Foreign Missions Act and Espionage Activities in the United States*, (Washington: U.S. Govt. Print. Off., 1985), p. 73.
8. U.S. Department of Defense, p. 11.
9. House Subcommittee of the Committee on Government Operations, p. 93.
10. *Ibid.*, p. 40.
11. U.S. Department of Defense, p. 11.
12. House Subcommittee of the Committee on Government Operations, pp. 90-91.
13. U.S. Department of Defense, pp. 68-69.
14. Select Committee on Intelligence, p. 5.
15. *Ibid.*, p. 98.
16. *Ibid.*, pp. 118-119.
17. U.S. Department of Defense, p. 14.

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Conference on Soviet Military Doctrine in an Era of Change

Old Dominion University is sponsoring a conference on "Soviet Military Doctrine in an Era of Change" for academics and defense professionals at Old Dominion University on 25-27 May 1989. For further information, contact: Philip S. Gillette, Graduate Program in International Studies, Old Dominion University, Norfolk, Virginia 23529-0088; (804) 440-4643.

Promotion by Degrees: Myth or Magic in the Marine Corps

Major Les Stein, U.S. Marine Corps

One of the most enduring arguments among U.S. military officers focuses on the subject of promotion opportunities. While there are officers who believe that "performance" determines success, others are convinced that success is a direct result of "who you know." A sizeable percentage also believe that performance dictates success until a particular rank is achieved, whereupon personal contacts and general reputation are the determining factors. Officers who are searching for the golden rule of thumb towards advancement will be disappointed by the promotional criteria that are largely determined by a number of independent and often unpredictable variables.

A study of promotion statistics indicates that Marine Corps officers are better educated today than ever before. While their structured strength has changed less than a half percent since 1960, more than twice as many officers now hold master's and doctoral degrees.[1] The increase in bachelor's degrees can be explained by the more stringent commissioning policies, but this does not explain the increased number of graduate degree holders. While education beyond a bachelor's degree is not required of unrestricted officers, many continue their studies in pursuit of advanced degrees. Are they motivated toward such a goal because they perceive its value as career enhancing, or do these officers simply have a personal commitment toward expanding their educational horizons?

The career-enhancing value of graduate degrees has been the subject of "happy hour" discussions for many years as officers seek to improve their chances for promotion. Few will disagree with the idea that performance serves as the most critical consideration in the promotion process, but given

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today's highly inflated evaluation system, can an officer be blamed for seeking a competitive edge?

History

Training of military personnel at civilian institutions dates back to 1868 when prospective medical officers were provided their education under congressional legislation. The National Defense Act of 1920 formalized this practice, and by 1965 eight percent of the authorized personnel strength was permitted to attend civilian colleges and universities.[2] It seems that the intent of both the Congress and the military hierarchy was to produce officers who could deal effectively with political, economic, scientific, and social problems as they related to their expanding military obligations.

After World War II, graduate education for the military officer was discussed in conjunction with its career enhancement value, gaining momentum when the compiled promotion results of the 1940s proved favorable to officers with graduate degrees. According to Ruben A. Cubero,[3] an unwritten official policy grew within the military which gave officers with graduate degrees an edge in the competition for promotions. He noted that during this decade the selection rate of majors with master's degrees to lieutenant colonel was 58 percent as compared to 36 percent for those with no more than a bachelor's degree and 33 percent for those with only two years of college.

Colonel James G. Van Straten argued that "the net effect of Sputnik I, educationally speaking, was a rigorous questioning of U.S. curricula and methodology and a tremendous increase in graduate school enrollment, initially in the hard sciences and later broadening into the humanities and social sciences as well."[4] He further pointed out that the National Commission on Technology, Automation and Economic Progress, formed in 1964 by President Johnson, argued strongly for using continuing education as a means of preventing human obsolescence. He went on to cite a report of the United States Army which strongly supported the findings of the commission by stating that "as weapons and management systems sophistication increased, so too did the demands for highly educated and trained officers."[5] In essence, the fear of obsolescence steadily drove the educational aspiration levels of military officers upward.

Other factors having a significant impact on officers' educational aspirations included the changing character of military authority. It was found that the military's infrastructure was displaying characteristics similar to those of large non-military bureaucracies. In other words, the traditional line of authority so often associated with the military structure had been modified to accommodate not only the rising needs of a technological environment but also the changing requirements in the field of organization

and human relations. To a great extent, tradition, often considered the hallmark of military history, was relegated to secondary importance while more emphasis was placed on the decision-making concept. Van Straten found that "Military authority based on status and custom had been forced to share the mantle of power with authority based on expertise—expertise not only on technological matters, but on matters of organization and human relations as well."[6]

Other arguments for the increased emphasis toward graduate degrees for officers lay in the perceived change in the mission of the U.S. military. Once considered a force preparing for the violence of war, it now appeared to be training for the deterrence of war. This shift in attitude can be attributed to the realignment of the nuclear balance. Essentially, the conventional forces within the military were determined to be inconsequential in the face of nuclear weapons. Thus, military officers were becoming far more politically oriented than in the past. This was best evidenced by the dramatic increase in the validation of military positions requiring graduate degrees in the social sciences. Whereas the physical and biological science positions validated for graduate study increased by approximately 70 percent between 1964 and 1967, the business administration validated positions more than tripled, and the social science positions almost quadrupled. According to Jordan and Taylor, "The proliferation of tasks that military officers were being asked to perform as a result of this significant shift in mission served to drive up both the organizationally perceived requirements for graduate degrees and the educational aspiration level of the officer corps."[7] A litany of social problems during the 1960s added to the pressure to acquire graduate degrees. Racism, drugs, alcohol, and dissent, a consequence of the Vietnam conflict, prompted the Army to validate a number of jobs requiring master's degrees in social psychology and the social sciences in general. It became evident that trained social scientists would enhance the quality of many critical programs.

Ralph E. Haines et al. cited the Department of the Army's report on the quality of its officer schools which stated that "The baccalaureate degree is no longer widely regarded as the hallmark of the educated man; today one out of every four college students remains in school for graduate work, often receiving his degree, and the academic community expects the demand for advanced degrees to increase still more over the next decade."[8] Lloyd Moses further analyzed the scope of the Army's graduate education program and concluded that it was inadequate in the face of the increasing demands of our technological age.[9]

John W. Masland and Lawrence I. Radway conducted an extended survey of officer preparedness for the various responsibilities inherent in their posts. They found that three sets of qualifications were involved: specific military knowledge as dictated by the particular job; the same qualities as might be

required for executives in non-military organizations; and a combination of executive and military skills. They felt that the "ideal" incumbent would satisfy all three sets of criteria and that a graduate degree would enhance his or her success in this endeavor. Officers are often involved in international policy formulation and diplomatic missions. Also, they often must be well-versed in international affairs, economics, and a host of other non-military subjects. The authors summarized by stating that "officers who are recommending force levels, for example should know when to seek and how to use knowledge of current American foreign policy, fiscal policy, industrial potential or scientific research and development. . . . Political sophistication is as desirable as technical expertise."[10] They cautioned, however, that "versatility" is the key ingredient to a successful career. In essence, he or she must be well-versed in a variety of specialties and still be able to absorb new data and concepts quickly. In reference to advanced degrees they concluded that "The education programs of the armed services are conceptually and administratively part of the training function."[11]

Officers' Attitudes Toward Graduate Degrees

George McLaughlin conducted a survey of the attitudes of 100 officers who had completed graduate work in business administration and personnel management under the Army's civil schooling program. His findings indicated that those officers were overwhelmingly in favor of the program, fully agreeing with the purpose and need for such an education.[12] In support of this report William Tomlinson argued that the attitude toward graduate education for officers during the 1960s was positive. Career managers within the Armed Forces were encouraging high quality officers to seek advanced degrees. In essence, attaining graduate degrees was perceived as a career enhancing move which would ultimately prove to be professionally rewarding. He concluded that the educational aspirations of military officers was rising steadily throughout this period.[13]

According to Ward Just, military officers quickly made the association between an advanced degree and upward mobility, and by the mid-1960s it was obvious that advanced degrees were a concomitant part of the list of "ticket punching" requirements. He suggested that the officer who desires a military career should "try for a teaching billet at West Point (if he was a West Pointer) or, better still, a master's degree in almost anything—business administration, history, accounting, political science, physics, sociology. . . . The leadership, fascinated now with the concept of the scientist-soldier and the military manager, believes that only the highly educated are capable of taking the institution through the nineteen-seventies."[14]

One of the earliest studies designed to evaluate the impact of education on military promotions was conducted by William Tomlinson as part of his U.S. Army War College thesis. In a survey of 111 officers with graduate degrees, only 7 percent experienced a promotion passover, while 21 percent were selected for promotion ahead of their peers, and 70 percent were selected on time. The remaining 2 percent could be accounted for by resignations and deaths. He further found that of this group, 49 percent were eventually selected for top level schools.[15] In his "Review of Army Officer Educational System, Summary Report," conducted for the Department of the Army, Major General Frank Norris confirmed the earlier statistics but warned against the use of such degrees only for the sake of satisfying a requirement. He argued that "There is always a danger that acquiring an advanced degree can become a ticket-punching exercise and thus detract from professionalism. However, we cannot blame the officer corps for following the promotion lists; the fact is that in recent selections to general officer, an officer without a master's degree has been the exception rather than the rule."[16] He went on to point out that 62 of the 80 general officer selectees on the 1971 promotion list had advanced degrees. In essence, he agreed that the evidence clearly points to the enhancing qualities of advanced degrees but preferred to discourage the ticket-punching mentality, favoring instead a positive approach in the form of benefits gained by both the military and the individual officer.

In his detailed study of the relationship between graduate degrees and officer promotion opportunities in the Air Force, Cubero found some contradictions in the attitudes of Air Force officers toward graduate education. Although his survey population included, almost exclusively, officers who had been selected for graduate studies, only 58 percent felt that the degree was career enhancing. This is somewhat of an anomaly since the officers obviously were selected for schooling as a consequence of their competitive records and one might assume that the degrees would serve to enhance their competitive status. Interestingly, the majority stated that they "were motivated to attain their graduate degree for the dual reasons of professional and personal fulfillment."[17]

In direct support of these findings Cubero cited a study conducted in 1966 by the Assistant Secretary of Defense/Manpower and Reserve Affairs which surveyed the attitudes of 11,568 officers between the ranks of first lieutenant and colonel. Although the vast majority (93 percent) felt that their graduate degrees had made them more effective as leaders and managers, only 31 percent of the officers believed that their graduate degrees had made an impact on their promotions, while 63 percent felt that the degree had no impact on promotion successes. In essence, the findings of the study indicated that the consensus among military officers was that advanced degrees are

beneficial to both the individual and the military but do not necessarily enhance one's career.

Based on the available evidence, it seems that the 1960s and 1970s was a testing period for officers with career interests, and one of the measurement criteria for success included graduate education. Such degrees were perceived as a fundamental requirement for success by many officers. In his interview of Army Lieutenant Colonel Zeb B. Bradford, Stuart Loory pointed out that of the six criteria for advancement, Bradford identified an advanced degree as second only to attaining a command billet. Thus, the available information indicated that although the attitudes are mixed, they tend to lean toward the positive career value of a graduate degree.[18]

Research

What are Marine Corps officers' attitudes toward the career value of graduate degrees? Do they believe that officers with advanced degrees are better leaders than those without such credentials? I will report only the opinions surrounding the perceived value of graduate degrees as factors in the promotion process. I solicited the opinions of officers in two categories—those with not more than a bachelor's degree and those with a graduate degree (master's and above). My survey distribution and the response rates are included in table 1:

	Graduate Degree		Bachelor's Degree Only	
	Number mailed	Number returned	Number mailed	Number returned
Second Lieutenant	2	0 = 0%	30	16 = 53%
First Lieutenant	2	2 = 100%	35	25 = 71%
Captain	40	36 = 90%	41	24 = 59%
Major	38	35 = 92%	41	24 = 59%
Lieutenant Colonel	40	40 = 100%	44	25 = 57%
Colonel	22	22 = 100%	20	14 = 70%

Total mailed 355
Total responded 263
Total response rate 74%

Table 1

The officers' enthusiastic responses to the survey reinforced my original impression regarding the legitimacy of this issue. The responses were tabulated in two categories—field-grade officers (majors and above) and company-grade officers (captains and below). The questions and their respective response rates are provided below:

	Company Grade		Field Grade	
	Yes	No	Yes	No
1. Do you feel that an officer's career suffers if he/she does not have a graduate degree?	35%	65%*	21%	79%*
2. Promotion boards favor graduate degrees in selecting officers for promotion.	49%	51%	31%	69%*
3. Do officers with graduate degrees have more credibility with their superiors than those who do not have such degrees?	18%	82%*	12%	88%*
4. All things being equal, the officer with a graduate degree should be promoted ahead of the officer who does not have such a degree.	52%	48%	50%	50%
5. Do you encourage your fellow officers to pursue off-duty graduate degrees?	61%	39%*	71%	29%*
6. Graduate degrees improve one's performance on the job.	49%	51%	60%	40%*
7. Graduate degrees improve one's communication skills both in writing and speaking.	83%	17%*	82%	18%*
8. A graduate degree improves one's approach to problem solving.	62%	38%*	72%	28%*
Questions 9-11 were directed toward officers without graduate degrees.				
9. Do you feel that a graduate degree would be beneficial to your career?	86%	14%*	63%	37%*
10. Do you feel that your superior would give you a better fitness report if you attain a graduate degree?	25%	75%*	3%	97%*

	Company Grade		Field Grade	
	Yes	No	Yes	No
11. Do you feel that a graduate degree would make you more successful in the Marine Corps?	60%	40%	47%	53%

The remaining questions were directed toward officers with graduate degrees.

12. Do you feel that your graduate degree has helped you in getting promoted?	11%	89%*	47%	53%
13. Do you feel that your graduate degree will help you with future promotions?	50%	50%	46%	54%

Note: * = $P < .05$ (significance level using Chi Square Test for analysis and validation).

The officers' responses to questions one and two are indicative of their underlying attitudes toward the career value of graduate degrees; the majority (statistically significant) do not believe that an officer's chances for promotion are adversely affected by the absence of a graduate degree. The response rates to the follow-on questions, however, are not necessarily consistent with the first two. Question four, for instance, surfaces a bias on the part of both officer groups—given two officers with similar performance records (not altogether unlikely under today's system of evaluation), but separated by the fact that one officer has a graduate degree while the other does not, half would choose the officer with a graduate degree for promotion. Remember, a significant majority originally stated that officers' careers do not suffer if they lack a graduate degree.

The responses to questions five through eight also seem to support a bias in favor of graduate degree holders, but the results are somewhat misleading. The apparent inconsistency between these responses and the responses to questions one and two led me to ask six company-grade and six field-grade officers to interpret the questions and elaborate on their answers. Each officer said that he could not argue with the overall academic value of a graduate degree for it can only serve to improve one's basic communication and administrative skills. They quickly added, however, that the only effect such an education might have on their careers would be potentially to make

them more efficient officers; the credential alone, they argued, would not improve the chances for promotion.

The responses to questions 12 and 13, by officers with graduate degrees, also identified an anomaly. The response rate of the company-grade officers to question 12 was to be expected, given that very few fail promotion between lieutenant and captain, but the field-grade officers' response rate was not at all convincing (just a little over half of them felt that their graduate degrees had not helped them in getting promoted). Furthermore, the rate of response, by both groups, to question 13 was significantly different from the line of logic that produced the answers to questions one and two (46% of the field-grade officers felt that their graduate degrees would enhance their chances for future promotions). In all, I was left with the distinct impression that Marine Corps officers are apprehensive and confused about this issue.

In order to gain some factual insight into the relationship between promotion opportunities and graduate degrees, I requested specific information from the Defense Manpower Data Center in Monterey, California. The information proved to be comprehensive although the raw data did not differentiate between officers who had attained their degrees as part of a Marine Corps-sponsored graduate degree program or by means of off-duty enrollment in local colleges or universities. Table 2 depicts the average promotion rates, by rank and degree level, between 1972 and 1984:

Marine Corps Promotion Rates (1972-1984)

Rank	AD%	BD%	ND%
Captain to Major	83	74	60
Major to Lt. Colonel	67	55	39
Lt. Colonel to Colonel	56	46	30
Colonel to General	9	7	1

AD—Advanced Degree (master's or higher)
BD—Bachelor's Degree
ND—No College Degree

Table 2

Although the data is self-explanatory, it is important to point out that the promotion percentages during this period did not necessarily rise with each year in favor of graduate degree holders. For instance, in 1984 more lieutenant colonels with bachelor's degrees only were promoted than those with graduate degrees. As a 13-year average, however, the statistics favor the officers with graduate educations; and at no time during this period were promotion rates for those without college degrees better than for either of the other two groups.

On the basis of the information provided thus far, one might readily reach a number of conclusions, none of which would necessarily be correct. On the one hand, although the percentage differentials are not substantial for any of the rank categories, the promotion statistics (table 2) indicate that Marine Corps officers with graduate degrees have fared better in promotions than those with only bachelor's degrees. Conversely, a substantial majority of today's Marine Corps officers feel that officer's careers do not suffer if they do not have an advanced degree, and that promotion boards do not necessarily favor those with graduate degrees (questions one and two). To make matters even more confusing the officers believe that a graduate degree is a valuable career tool, and they encourage their fellow officers to seek such credentials.

To magnify an already quizzical problem, I posed two more questions. These questions, and their respective responses, are provided below:

14. In order of priority, with 1 being the most important and 7 least important, rate the following areas as they impact on officer promotion opportunities:

	Company Grade	Field Grade
Performance (fitness reports)	1	1
Personal decorations	4	4
Military schools	3	3
Billets held	2	2
Graduate degree	7	7
Personal appearance	5	6
Who you know	6	5

15. Please rank the following reasons for seeking a graduate degree in order of importance (1 being the most important and 10 being the least important):

	Company Grade	Field Grade
Get a good civilian job	4	3
Meet other people	7	7
Good for my career	2	4
Gain additional knowledge	1	1
Supervisor wants me to go	8	9
Be able to contribute more to society	5	5
Prestige	6	6
Social pressure	9	8
Improve my communication skills (reading and writing)	3	2
Spouse wanted me to go	10	10

The officers' ranking of the provisions in question 14 is consistent with the responses to the first two questions indicating that they consider graduate degrees low on the list of promotion criteria. In question 15, however, they indicate that advanced degrees have a career value. So, one might deduct that in terms of criteria, graduate degrees rank low but they are perceived as making some difference.

The bottom line is that there is no bottom liue. Many good officers have absolutely no desire to seek a graduate degree but want to make themselves more competitive. They sacrifice what little family time they have to work toward an advanced degree, a task that can take as long as six or seven years when juggling deployed time. On the other hand, there are those who may not be the cream-of-the-crop but gain an edge by virtue of their degrees, often at the expense of their job performance.

Essentially, the problem exists because officers are forced to speculate about the military hierarchy's undisclosed attitude toward graduate degrees. I propose that one of two options be considered: a policy statement be published by the Department of Defense on the true value of graduate degrees as factors in promotion opportunities and that promotion boards adhere to this policy; or that information pertaining to education levels be withheld from promotion boards in order to alleviate the possibility of bias. The second option, by the way, was under consideration by the Air Force in the 1970s. Either way, we need to know where we stand relative to this issue. Personally, I feel that an education, regardless of discipline, can never be a waste of time because it enhances one's ability to deal with the myriad leadership challenges that officers face daily. This is not to say that the same sort of education cannot be gained by individual effort, i.e., extensive reading, military extension courses, and so on, but few of us are disciplined enough to follow through with such programs.

Based on personal experiences, I do not believe that any form of higher education is the exclusive measurement for determining an officer's leadership qualifications. It can, however, provide an officer with some critical tools to enhance inherent traits. Too many military critics have attacked us on our most blatant deficiency—communication skills—and failure to take the problem seriously would be a gross misjudgment. Graduate degrees focus heavily on developing detailed solutions to realistic and complex problems. The critical advantage is that the student is forced to define the problem clearly and present his solution(s) by means of oral and written communication. The benefit is that either the instructor, fellow students, or both provide feedback focusing on weaknesses and adding constructive criticism. This, added to existing leadership strengths, can enhance the effectiveness of an officer.

The "gunfighter" mentality is critical to our line of business, but wars are won less on machismo than on the ability to outthink the opponent. In studying military history, we often find more examples of bad leadership than good. History's accomplished leaders would probably have fared no better with an advanced degree, but one has to wonder whether those who failed might have avoided their fatal errors had they been better educated in critical thinking skills.

Notes

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11. *Ibid.*, p. 51.
12. George R. McLaughlin, "Graduate Study Pays Off," *Army*, July 1962, pp. 60-61.
13. William H. Tomlinson, "The Army Graduate Civil Schooling Program in the Engineering and Physical Science Fields: A Critical Evaluation," Unpublished Student Research Paper, U.S. Army War College, Carlisle Barracks, Pa.: 1966, pp. 75-80.
14. Ward Just, *Military Men* (New York: Knopf, 1970), p. 111.
15. Tomlinson, pp. 75-80.
16. Frank W. Norris et al., *Review of Army Officer Educational System, Summary Report* (Dept. of the Army: 1971), v.1, p. 9.
17. Cubero, p. 32.
18. See Stuart H. Loory, *Defeated: Inside America's Military Machine* (New York: Random House, 1973).

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On the Cusp of the Maritime Strategy

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The Issue

The extraordinary commitment of naval forces to the Persian Gulf since June 1987 raises a number of issues regarding the doctrine that has emerged since the end of World War II concerning peacetime and wartime employment of naval forces.[1] Generally, the body of literature describing this doctrine—various DOD and Navy posture statements, speeches, and articles—focuses the Navy's roles and missions on:

- Deterring attack.
- Executing traditional wartime missions of sea control, sea denial, and the projection of maritime power ashore.
- Responding to crises by drawing on the mobility and flexibility of naval forces in order to influence events either actively or passively.[2]
- Conducting the traditional peacetime missions of forward presence, the reassurance of allies, and the protection of U.S. interests and citizens overseas.

Over the past few years, these maritime concepts have been codified by the issuance of the Navy's Maritime Strategy,[3] which centers the Navy's thinking on employment concepts for waging a general war at sea with the Soviet Union.

The Maritime Strategy has become an integrating force in the Navy, linking overarching strategic principles and wartime objectives with the Navy's design and structure. Secretary of Defense Caspar Weinberger noted this by saying: "the greatest value of President Reagan's maritime strategy is its focus on the crucial issue of how we can best use our maritime forces and those of our allies to achieve the basic goal of deterrence—and deny the adversary his preferred wartime strategy."[4] Additionally, the maritime concepts and their underlying assumptions have been tested and evaluated

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in war games and exercises evidently designed to scrimmage the game plan under conditions as realistic as possible.[5]

On balance, these efforts have resulted in bettering the Navy's ability to internalize the principles of the Maritime Strategy, which include:

- Taking the fight to the enemy by prompt offensive action.
- Seizing and holding the initiative.
- Influencing the global war.
- Developing and maintaining leverage to terminate the war to U.S. advantage.

In sum, having the Navy make a strategic difference.

Yet recent events in the Persian Gulf demonstrate that there exists a "cusp"—a transitional element—between the strictly peacetime employment of the Navy and the waging of general war with the Soviet Union. Our maritime literature is not bereft of analysis of this phenomenon. Admiral Stansfield Turner's 1974 assessment of U.S. Navy missions included those to be undertaken in the non-Soviet context. Navy posture statements and other analyses followed similar descriptive themes.[6] While this transitional phase has been called "violent peace" or "low intensity conflict," and reassuringly graphed on various asymptotic charts, it is not at all clear that the aforementioned principles and assumptions of the Maritime Strategy apply to the subthreshold crisis or confrontation that lasts for some period of time. It may be useful, then, to use the current situation in the Persian Gulf to develop some principles for dealing with circumstances on the cusp of the Maritime Strategy.

Where Is the Cusp?

By definition, events on the cusp do not involve general war with the Soviet Union. But clearly they are not business as usual, at least in terms of unperturbed operations and exercises of the Navy's operating forces. While the Soviets may be involved, the proximate causes of the crisis involve other nations directly. In this circumstance, U.S. interests are at stake, but not necessarily vital U.S. interests.[7] Without a threat to the survival of the Nation, which "vital interest" connotes, the degree to which U.S. interests are at stake might be measured by the Government's willingness to commit a higher and higher level of military force to support its political and diplomatic objectives. Clearly the U.S. Government might be willing to take military risks in a crisis such as this. Ships might steam into danger, thereby risking deliberate, indiscriminate, or inadvertent attack; lives might be lost; and confrontation with the adversary might be clear and direct. There might be instances of actual combat, either isolated or sustained for a period of time. In sum, the level of risk we are willing to take is based on our commitment to the protection of our interests. The result, however, is a

dilemma posed by the lack of any discernible measure of this commitment and interest, save the deployment of military force.

Such risk-taking behavior will be accompanied by the added gamble that the crisis might worsen to involve actual war with the adversary, or even directly with the Soviet Union. The latter possibility carries serious consequences, since the commitment of naval forces to one region could leave them excessively vulnerable or out of position were the crisis to eventuate into a confrontation or conflict with the U.S.S.R. Also, in such a crisis, war reserve stocks and forces essential for the successful conduct of general war might be consumed or lost. Thus, the Navy could be maldeployed and maldisposed to combat the Russians.

For these and other reasons, there will be high-level political attention to such a crisis in the United States, in allied capitals, and in the Soviet Union. In some cases, it might be argued that the United States and the Soviet Union will perceive or even use the crisis or conflict as a "surrogate war," wherein larger issues of superpower competition are signaled through the use of proxy conflict.

Congressional involvement and discomfort will likely be manifest, with special reference to the War Powers Resolution. Numerous hearings will be held, coinciding with visits to the region. The crisis may be further politicized along partisan lines. There also may be manifest a general unwillingness of the Congress to take a public stand, one way or the other, on a tough but very ambiguous issue, many members essentially wishing to be "right" in hindsight.

The crisis will certainly be a major media event, subject to manipulation by all sides to garner support. Popular support will be critical because a politically sustainable level of effort for the duration of the commitment of forces will be essential. Yet popular support will be fragile, transitory, and hard to measure, perhaps being more dependent on how well the question is phrased in the polls than on the strict merits of the case.

The catalyst for the crisis will likely be quite clear, e.g., an action taken in legitimate self-defense, an unacceptable incident, a terrorist attack, a request from a friendly government. But, without a clear specification of objectives, the criteria and time lines for ending the crisis might not be so clear-cut. Hostages may be released, clients may stop fighting, and borders may be restored to their prewar status, but it will be exceptionally difficult to establish criteria and guarantees for political and military behavior suitable for complete disengagement. Thus, "winning" by any definition, save the satisfaction of having accomplished the stated objectives, will be exceptionally difficult to establish. Conversely, the criteria for "losing" might well be much more clear-cut. Popular support may erode or evaporate following some military adversities or casualties. Political constraints and legislatively imposed time lines may so confine operations or end them

altogether that we, in effect, "blunder out" of the crisis. By allowing a military event, political pressures, or even weariness from the costs of commitment to dictate the end of the commitment—without resolving the underlying issue that prompted us to assume that commitment—the United States would send a very strong, clearly negative signal about its constancy to friends and dedication to principle.

During the employment of military force in such circumstances, the issue of "proportionality" will become very important. Any military means must be proportionate to a discrete, legitimate military end.[8] Clearly, a superpower can employ disproportionately large amounts of military force against almost any adversary. Indeed, it is this overwhelming capability that permits the superpower to deter, persuade, or coerce another state. But because the crisis is by definition limited, one result will be a complex calculus of political, diplomatic, and military objectives which in turn will constrain the employment of military force to "appropriate" levels, likely below their optimum. For this reason, military operations will be planned, coordinated, and approved at levels of the chain of command far above the engaged tactical commander. Similarly, rules of engagement for dealing with various tactical circumstances will be developed, reviewed, and approved throughout the chain of command in order to ensure the principle of proportionality and acceptable political risk as well as to assure those at the upper levels of the chain of command that the engaged tactical commander will operate under an approved regimen in a variety of hopefully foreseen circumstances.

Finally, as we know, naval forces are well-suited to participate in this kind of activity. They are mobile, flexible, not closely tethered to bases ashore, and their commitment to a crisis does not necessarily imply a long-term commitment of ground or land-based air forces. However, these naval virtues mean that naval commanders, who are accustomed to dealing with a generally unambiguous peacetime or general war tactical circumstance, will probably find themselves enmeshed in ambiguous tactical circumstances. Thus an intellectual framework for developing some additional principles of maritime strategy for dealing with these kinds of circumstances may be useful.

Dealing with the Cusp

We are told often enough how important it is to know one's enemy. Yet the problems in doing so, posed by subthreshold crises or limited conflict, are substantial. The predominant focus of the U.S. intelligence effort is, rightly, on the most dangerous and robust threat to our national security—the U.S.S.R. The commitment of analytical resources to the diversity of actual and potential threats springing up elsewhere is necessarily an

additional burden on those devoted to Soviet problems. While additional resources have been committed to so-called "Third World" intelligence matters, a vexing problem remains: to develop a thorough appreciation of a non-Soviet adversary's concepts of operation, tactics, and strategic goals and objectives that would be tactically relevant to the engaged commander and made available to him in sufficient time to support his decision making.[9]

Furthermore, while the Soviet Union remains the largest purveyor of weapon systems to the Third World,[10] weapon systems threatening the engaged commander may not be of Soviet origin. However, as demonstrated by the Falklands war and the Persian Gulf crisis, non-Soviet weapon systems are no less lethal than their Soviet analog; but the proper electronic warfare and other defensive systems to deal with the non-Soviet threat, especially one developed by our allies or even ourselves, may not be available. The operating environment itself will be rendered even more ambiguous by the difficulty in distinguishing threat platforms from those that are friendly or neutral. For example, in the Persian Gulf the ubiquitous C-130 is found in the operational inventories of many nations of the Gulf besides Iran; save for its flag, the Qatari *La Combatante* is virtually identical with its French-built counterpart of the *Kaman* class in the Iranian Navy; and military and civilian versions of the "Huey" helicopter abound.

The engaged commander must therefore be prepared to deal with the orthogonal and the ambiguous. By training and doctrine, the Navy may be more used to dealing with unambiguous Soviet threats than with the non-Soviet adversary. The likely impossibility of intelligence providing a clear understanding of a non-Soviet adversary's intentions compounds the threat identification problem. Determination of a military threat posed by a "blip on a radar screen" will be difficult—flight characteristics and other cues may not be definitive and intentions even less so. Thus, the engaged tactical commander will have great difficulty answering the crucial questions "Who is he?" and "What is he going to do?" while relying on the manifest military capabilities of his force to deter hostile action or, if that deterrence fails, defensive actions under the rules of engagement.

An adversary may also be able to employ a variety of paramilitary, unconventional, subversive, or terrorist means, both at sea and ashore. Such threats would be extremely difficult to assess beforehand and deal with by conventional military means. Were the adversary's actions successful, however, they might easily serve his political goal of eroding popular support for the U.S. Navy's effort and embarrassing those who support it.

Because the crisis is, by definition, political, it will not be resolved solely by military means. Thus, military actions of any sort will signal a high political content. The military roles of adversaries, friends, and allies will be shaped by politics. For not only strictly military reasons, but also because we will desire political support for our position and actions, the cooperation

and support of our friends and allies will be very important. Yet because the crisis is by definition unforeseen and unplanned for, and likely outside the diplomatic specifications of treaties, the roles of friends and allies will not be defined clearly, and their support will be uncertain. Despite our coalition planning and expectations, we might face the possibility of "going it alone."

As Admiral Stansfield Turner wrote in 1974, naval deployments, threatened or actual, must be appropriate to the situation, must pose a credible threat to the opposition, and must suggest the capacity to engage in any of five basic actions: amphibious assault, air attack, bombardment, blockade, or exposure through reconnaissance.[11]

However, the proper employment of naval forces in these circumstances is necessarily constrained. Since the end of World War II the "doctrinal referent" of the Navy has been the aircraft carrier battle group.[12] Surface combatants have been acquired in large measure to complement the offensive and defensive capabilities of the air wing. Exceptionally detailed operating doctrine for antiair, antisubmarine, and antisurface warfare has been developed, based on the integrated combat capabilities of the aircraft, surface ships, and submarines of the battle group. The current tactical situation of the Persian Gulf, however, finds the ships of the Middle East Force engaged in missions traditional for surface combatants—certainly antiair warfare, bombardment, and escort operations—usually without the immediate availability of and integration into the aircraft carrier battle group. Indeed, unless procedures for the overflight of littoral nations' airspace have been altered, that command's ships appear to be left to their own devices to defend themselves and the ships they are escorting, at least beyond the Strait of Hormuz.

The tactical circumstance in the Persian Gulf demonstrates the need to continue the development of the doctrine, the tactics, and the operational familiarity and flexibility to deal with this kind of situation here and in other areas of the world. Although the Navy's stated goal is fifteen deployable aircraft carrier battle groups, such a number cannot possibly match the set of potential crises when the deployment of naval forces may be required. Clearly then, an aircraft carrier may either be unavailable or tactically inappropriate. For example, the constricted waters of the Caribbean may demand a nearby U.S. naval presence that could be satisfied more readily by a surface combatant task group than by a battle group centered around the aircraft carrier.

Furthermore, the demands for proportionate, measured commitment of military force might also be more readily satisfied by greater and greater increments of naval forces represented by different "mixes" of ships. In terms of "graduated responses," surface ships with a variety of offensive capabilities can add steps in a ladder of escalation—a consequential

contribution in most scenarios. Such forces are also key indicators of the level of concern held by national authorities. The visibly greater combat capabilities and the coincident increase in the set of targets held at risk may be very beneficial to limiting or resolving the crisis. If the ability to deter or coerce an adversary is based on the sum of military capabilities and the willingness to use them, it holds that the deterrent, persuasive or coercive value of naval forces will increase in proportion to those forces' increase in obvious power.

Special demands for overtness will be made to signal to the adversary our policies and procedures, as well as to influence his decision making directly. Conversely, there will be special demands for covertness to preclude conveying or revealing an operational advantage.

When weapons are employed, there will be special demands for accuracy and effectiveness that might well be of lesser concern in general war, for while in general war we necessarily allow for fog and friction, those trying to contain a crisis or limited conflict will not permit the same degree of uncertainty or tolerate undesired collateral damage.

Finally, the ambiguity of the tactical situation, the orthogonal nature of the threats an adversary can impose, and the demands for flexibility in the proportionate commitment of force will demand innovation and imaginative employment of the forces available. New ways of using existing platforms must be explored. New systems, especially those of the other services, may be used to solve tactical problems, old or new. Thus, creative thinking may well be one of the most critical elements of the Maritime Strategy for the "cusp."

Operating on the Cusp

The foregoing analysis suggests a few brief conclusions. First, the Persian Gulf represents one of the clearest manifestations of the reality that America's interests may be challenged worldwide by political, economic, and military crises that are outside the formal boundaries of alliance commitments but which, by their nature, demand a U.S. response. In the years and decades to come there will likely emerge more crises, like the one we confront today in the Gulf, which will be additive to normal commitments to alliances, exercises, and the routine employment of U.S. military force. Naval forces will continue to be the most favored and useful instrument for the influential use of U.S. military power, especially in a geostrategic environment where the U.S. overseas base structure, which we have relied upon since World War II, is subject to serious reconsideration by many host nations worldwide.

While these crises will arise quickly, they will not be without their history and a certain uniqueness of geography, tactical operating environment, and

political-military context that has taken years, if not decades or centuries, to develop. In order to deal with these emerging situations, the Navy will be required to invest in the development of detailed knowledge of, and operational experience in, the region, similar to that afforded the Navy by COMIDEASTFOR in the Gulf region since the end of World War II.

Because the Soviet Union will remain our most dangerous adversary, any crisis of import will carry with it a risk of direct or indirect Soviet involvement and competition. This involvement will likely be more opaque than the traditional Soviet political and military behavior observed toward the United States, Europe, and Asia since the end of World War II. Understanding how the Soviets may attempt to manipulate a crisis for their own ends, and the variety of overt and covert means they may use to do so, will be important. In any crisis, we cannot lose sight of the *schwerpunkt*—the German term for the critical point of contact. We cannot allow ourselves to become so embroiled in the immediacy of the event that the larger dimensions and dangers of Soviet competition, either in the region or worldwide, are overlooked.

In sum, knowing that crises like the Persian Gulf are certain to occur in the future, and lacking only the specificity of "where" and "when" and "how," will allow the Navy to continue to develop and train for naval operations on the "cusp" of the Maritime Strategy. In the tradition of Admiral Mahan, the progenitor of our current naval thinking, such is the grist of a robust, dynamic maritime strategy that is fully responsive to the needs of the Nation.

Notes

1. For a thorough compendium of the literature of the employment of naval forces to respond to political crises see Captain Peter M. Swartz, USN, "Contemporary U.S. Naval Strategy: A Bibliography," U.S. Naval Institute *Proceedings*, "The Maritime Strategy Supplement," January 1986, and his addendum thereto, published in April 1987.

2. Perhaps more perjoratively called "gunboat diplomacy," the frequency with which a President did choose to employ his naval forces was the subject of detailed record-keeping and analytical efforts to measure how often and when a President was likely to use the Navy for these purposes. Notable among these analyses is Barry M. Blechman and Stephen S. Kaplan, *Force Without War* (Washington, D.C.: The Brookings Institution, 1978).

3. Admiral James D. Watkins, USN, "The Maritime Strategy"; General P. X. Kelley, USMC, and Major Hugh O'Donnell, Jr., USMC, "Amphibious Warfare Strategy"; and John F. Lehman, Jr., "The 600 Ship Navy," U.S. Naval Institute *Proceedings*, "The Maritime Strategy Supplement," January 1986. Addendum thereto, published in April 1987.

4. Caspar W. Weinberger, "The Meaning and Spirit of the USS *Theodore Roosevelt*" *Defense Issues*, v. 1, no. 76, Washington, Department of Defense, 1986.

5. The many recent references to the Navy's newly focused attention to realism in naval exercises include: Dean Fosdick, "Soviets Shadow Navy Drill in Aleutians," *Washington Times*, 18 November 1987, p. 3.

6. Admiral Stansfield Turner, USN, "Missions of the U.S. Navy," *Naval War College Review*, March-April 1974, p. 14. The reader may also wish to refer to Michael Vlahos, "The Third World in U.S. Naval Planning," *Orbis*, Spring 1986.

7. A very concise definition of "vital interest" is contained in Harold J. Clem, *The Environment of National Security* (Washington, D.C.: The National Defense University, 1983), p. 28. Also see *National*

Security Strategy of the United States, issued by the White House in January 1987, for a definitive statement of U.S. interests.

8. William V. O'Brien, *The Conduct of Just and Limited War* (New York: Praeger Publishers, 1981), pp. 38-42.

9. "Current Naval Intelligence Issues" Office of Naval Intelligence, (Washington: March 1987).

10. Pranay Gupte, "Russia: Arms Merchant to the World," *Forbes*, 2 November 1987, p. 168; and *World Military Expenditures and Arms Transfers 1986*, (Washington: U.S. Arms Control and Disarmament Agency, 1986).

11. Turner, p. 14.

12. It may be argued, quite rightly, that the nuclear-powered submarine holds at least equal, if not unsurpassed right to the term "doctrinal referent" for the U.S. Navy. However, as concerns the ability of the Navy to commit forces to peacetime and crisis presence and force projection missions, the aircraft carrier, to borrow from the Navy's *CVN-74/75 Acquisition Program Handbook*, "has remained the focus of the U.S. Navy's conventional force operations. The aircraft carrier is the most 'flexible' warship ever built, capable of operating across the entire spectrum of armed force and delivering an almost infinite mix of weapons and aircraft." It is in this context that the term "doctrinal referent" is used.

Accidents and Crises: *Panay*, *Liberty*, and *Stark*

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Throughout the past decade there has been growing concern over the possibility of a Soviet-American war inadvertently triggered by escalatory processes resulting from unintentional or accidental actions or incidents. A spate of studies has examined these escalatory processes and the actions or incidents that might spark them.[1] Of particular concern is the possibility of accidents. An unintentional clash between military forces could defeat the efforts of both sides to manage a crisis. Naval forces are as subject to military accidents as are other military forces. Therefore, inherent in the advantages the U.S. Navy has as an instrument of American foreign policy and the frequency with which U.S. Navy ships are deployed to trouble spots, is the imperative need for Navy planners and operational commanders to understand and address the possibility of military accidents.

Richard Ned Lebow addressed the dangers of accidents in a 1978 *Naval War College Review* article on the Dogger Bank incident.[2] In that 1904 incident, the Russian Baltic Fleet, while transiting the North Sea en route to the Pacific to join in the war effort against Japan, fired on British fishing boats which they had mistaken for Japanese torpedo boats. The incident created a state of crisis with Britain, and the Royal Navy was alerted to forcibly halt the Russian Fleet. War was averted when the Czar capitulated to British demands that the perpetrators be punished. Although Lebow derived several propositions on accidents from his study of this event, other incidents with dissimilar factors involved could well produce different results.

To extend Lebow's initial examination of accidents and crises, this analysis examines three incidents in which U.S. Navy ships were victims of attack.

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On 12 December 1937, the Yangtze River gunboat U.S.S. *Panay* (PR 5), engaged in evacuating American civilians from Nanking during the Japanese invasion of China, was bombed and strafed by Japanese Navy aircraft. The *Panay* was sunk, 3 were killed and 48 wounded. On 8 June 1967 the intelligence collection ship U.S.S. *Liberty* (AGER 5), engaged in surveillance of the Arab-Israeli war, was rocketed, strafed, and napalmed by Israeli jets, and then machine-gunned and torpedoed by Israeli torpedo boats. The *Liberty* was severely damaged, 34 men died and 171 were wounded. On 17 May 1987 the guided missile frigate U.S.S. *Stark* (FFG 31), patrolling the Persian Gulf during the Iran-Iraq war, was struck by two Exocet missiles launched by an Iraqi jet. The *Stark* was severely damaged, 37 men died and dozens were wounded. All three of these incidents were portrayed as accidents by the perpetrators, and the U.S. Government officially accepted the perpetrators' apologies, if not their explanations, in all three situations.

A review of the *Panay*, *Liberty*, and *Stark* incidents raises three questions to be answered: Under what international circumstances do accidental attacks occur? What were the perpetrators' motives for the attacks? Why did the U.S. Government and the perpetrators' governments respond as they did to the incidents? Answers to these questions will improve our understanding of the dangers that can arise from military accidents.

The Concerns about Accidents

Lebow's case study of the Dogger Bank incident focuses on five main points. First, the significance of an accident depends upon the political context in which it occurs, particularly the preexisting state of relations between the perpetrator and the victim. Whether a military incident is treated as a deliberate provocation or an unfortunate accident depends on the victim's decision either to avoid or to precipitate war. Second, the nation responsible for a military provocation may attempt to dismiss it as an accident in order to minimize the challenge it conveys. Third, the magnitude of an accident does not determine whether or not a crisis results. Heavy loss of life may evoke little reaction, while a few casualties may provoke war. Fourth, the victim's perception of the likelihood of a provocation being repeated is an important factor in determining his response to an incident. Fifth, policymakers are more likely to treat an accident as a provocation if it threatens an important interest or commitment. Lebow concludes that accidents are not events which compel particular responses, but embarrassments or opportunities which policymakers may seek to ignore or to exploit in keeping with their interests.[3]

Accidents are troublesome for crisis managers because decision makers who fail to realize that an incident was unintentional, may perceive it as a deliberate provocation or signal of hostile intent.[4] This problem is

compounded by modern communications systems which give national leaders in many countries the capability to exercise direct control over military operations. Lebow has warned that since any military action could conceivably be the result of orders from national leaders, an adversary may assume that those leaders did in fact order a given action, whether or not that conclusion is warranted. Thus, virtually any military action can assume strategic importance if an adversary believes it was ordered by national leaders.[5] When assessment of a military accident must be made in the fog of a crisis, with possibly incomplete or erroneous information coming in from the scene of the occurrence, the potential for escalation is heightened.

The Attack on the *Panay*

War between China and Japan dominated the international setting in the Far East in 1937. Japan invaded the strategic Chinese industrial region of Manchuria in 1931, setting up a puppet government, and in July 1937 staged a military incident as a pretext for invading the remaining territory of China. Peking fell in three weeks, Shanghai was occupied in August, and the Chinese capital of Nanking was first bombed in September. The Chinese Government evacuated Nanking as Japanese troops swept inland from Shanghai, establishing a new capital first in Hankow, then in Chungking, much further up the Yangtze River. Nanking was attacked by Japanese troops on 11 December after almost three months of heavy air attacks.[6]

The United States and the other Western powers in China remained neutral during the Sino-Japanese war. In the midst of the fighting, the U.S. Navy's Yangtze Patrol continued to operate gunboats in their mission to protect American lives and property. British and American naval vessels, including the U.S.S. *Augusta*, flagship of the U.S. Asiatic Fleet, had been fired on or nearly missed by both Chinese and Japanese bombs and artillery on several occasions. In December 1937 the *Panay* was assigned to evacuate the remaining U.S. Embassy personnel and civilians in Nanking in the event of an attack by Japanese troops.

On 11 December the *Panay* embarked fifteen evacuees and departed Nanking, accompanied by three Standard Oil river steamers, going upriver to avoid Japanese artillery fire and anchoring in the Yangtze late the next morning, 27 miles upriver from Nanking. At 1338 that afternoon the *Panay* was attacked by 24 Japanese Navy planes. One or two bombs struck the ship, several more were near misses, and the ship was strafed repeatedly. The *Panay*'s crew valiantly attempted to defend themselves with machine guns, but were unable to drive off or shoot down their attackers. The attack left the *Panay* a shambles topside, without power, and it slowly settled into the river while taking on water. The order to abandon ship was given about a half hour after the attack had begun, and the last man abandoned ship

at 1505. Japanese aircraft strafed the ship's boats that were ferrying crew and passengers to shore, and a Japanese river patrol fired on and boarded the abandoned *Panay*. The *Panay* sank at 1545—the first U.S. Navy ship ever to be sunk by hostile aircraft. After two harrowing nights ashore, trying to reach safety, the survivors were rescued by British and American gunboats and taken to Shanghai.[7]

Japan quickly apologized. The day following the attack Japan's Minister of Foreign Affairs called on the American Ambassador in Tokyo, while the Japanese Ambassador in Washington called on the Secretary of State to express the Japanese Government's regrets and to offer reparations. Vice Admiral Kiyoshi Hasegawa, commander of Japanese naval forces in China, called on Admiral Harry E. Yarnell, Commander in Chief of the U.S. Asiatic Fleet, to offer the Japanese Navy's apology. Although President Roosevelt and Secretary of State Hull sent protest notes to the Japanese, the U.S. Government accepted Japan's apologies for the incident and did not challenge the Japanese claim that the attack had been due to the *Panay* having been mistaken for a Chinese troopship. Despite indignation arising from accusations that the attack had been deliberate rather than accidental, American public opinion was strongly against military involvement in the China war. The *Panay* incident was officially closed in April 1938 when the Japanese Government paid $2.2 million in reparations to the United States.[8]

The Attack on the *Liberty*

War between Israel and neighboring Arab countries dominated the Middle East international situation in June 1967. Tensions had been rising for years as a result of the Syrian-Jordanian effort to divert the Jordan River away from Israel, Palestinian terrorist attacks on Israel, Israeli reprisal raids into Jordan and Syria, and artillery duels along the Israeli-Syrian border.

Three events in May 1967 escalated these tensions to the brink of war. First, the United Nations Secretary General, U. Thant, caving in to Egyptian demands, ordered withdrawal of the U.N. peacekeeping force from the Israeli-Egyptian border, and Egyptian troops descended on the Sinai. Second, Egypt announced its intention to blockade the Strait of Tiran, controlling access to the Israeli port of Eilat; an act of war under international law. Third, an Egyptian-Jordanian mutual defense pact was signed, bringing Jordan into the Egyptian-Syrian joint military command. All three moves appeared to confirm Israeli fears of imminent attack and they decided to preempt.

Israel struck early on 5 June with devastating air strikes on Egyptian airfields, followed later in the day by attacks on Syrian, Jordanian, and Iraqi airfields. Israeli army units invaded the Sinai and Jordan on the morning of that same day. Late on 7 June, Israel decided to attack the Golan Heights

as soon as troops were in position and ready. By the morning of 8 June, Egyptian defenses in the Sinai had collapsed, Jordan had been knocked out of the war, and Israel was making final preparations to attack Syria.

The United States declared neutrality in the 1967 Arab-Israeli war. Politically, the United States supported the U.N. ceasefire and called on Israel to adhere to it. Popular sentiment in the United States favored Israel, but not so strongly as to support military involvement on the Israeli side or to risk alienating the Arab nations. The primary concern of the U.S. Government was Soviet reaction to the crisis, and this drove U.S. military and diplomatic moves. The U.S. Sixth Fleet was positioned in the eastern Mediterranean to deter Soviet intervention, but was kept well clear of the fighting—partly in response to Arab claims that U.S. and British aircraft had assisted Israel in its initial air strikes.[9]

The *Liberty* was ordered to the eastern Mediterranean as Arab-Israeli tensions reached the crisis point in late May. The ship was instructed to patrol just outside territorial waters (twelve miles) off the coast of the Sinai Peninsula and monitor the progress of Israeli-Egyptian fighting as well as to conduct general surveillance of the region. Specific forces were not designated to defend the *Liberty* because the United States was ostensibly neutral in the conflict, and the ship was operating in international waters. Just before the *Liberty* commenced its patrol, at least five messages were sent ordering the ship to increase standoff range from the coasts of the belligerents—apparently in response to Arab claims that the U.S. Navy was aiding Israel and warnings from Israel that the seas off its coast were a war zone. The *Liberty* did not receive these messages.[10]

Israeli aircraft spotted the *Liberty* as soon as it arrived in its patrol area the morning of 8 June, identified it as a U.S. Navy ship, and repeatedly flew by the ship throughout the morning. At 1400, two Israeli Mirage jet fighters attacked the *Liberty* with rockets and cannon fire, followed by Mystere jet fighters attacking with rockets, napalm, and cannon fire. At 1435, three Israeli torpedo boats attacked, launching at least five torpedoes, one of which struck the *Liberty* in its intelligence space. The Israeli boats also raked the ship with machine guns and fired at topside personnel and life rafts in the water before breaking off the attack at 1515. As the boats retired, two Israeli assault helicopters carrying troops arrived, but they did not attack. An hour later the torpedo boats returned to offer assistance and were refused by *Liberty*. The ship was able to clear the area under its own power and rendezvous with other U.S. Navy ships the following day.[11]

The U.S. Sixth Fleet responded to the *Liberty*'s initial report of being under attack by launching four fighter-bombers, which were immediately recalled. Eight more aircraft were launched after the attack was over, but they also were recalled. Thus, no support was provided to the *Liberty* until the day after the attack, when evacuation of the wounded commenced.[12]

About a half hour after the attack ended, Israel notified the United States that it had "erroneously" attacked a U.S. Navy ship and apologized for the incident. The United States did not officially endorse the Israeli claim that the attack was a mistake, but by accepting the Israeli apology and allowing the incident to fade quietly away without demanding a full accounting, the United States tacitly accepted Israel's explanation. After an initial burst of public outrage in the United States, the incident was forgotten—reflecting Government handling of the incident. In June 1968, Israel paid $3.3 million to the families of those killed; in April 1969, paid $3.5 million to the men wounded in the attack; and in December 1980 agreed to pay $6 million for damage to the ship.[13]

The Attack on the *Stark*

The Iran-Iraq war, kindled by Iraq's invasion of Iran in September 1980, dominated the international situation in the Persian Gulf in May 1987. During the first three years of the war, Iraq conducted sporadic attacks on shipping in the vicinity of Iranian ports and oil terminals. In retaliation for Iraqi attacks on oil facilities, Iran boarded tankers entering the Persian Gulf, demanding verification that their destination was not Iraq. The shipping war escalated in May 1984 with the first Iranian attacks on commercial shipping in the Persian Gulf. Iraq also heightened its attacks on shipping in 1984, conducting them with more frequency and covering nearly the entire Persian Gulf. Iran and Iraq further intensified their antishipping campaigns in 1986, conducting twice as many attacks as they had in 1985. Approximately 355 ships were attacked in the Persian Gulf from September 1980 to May 1987. In the nine months prior to the attack on the *Stark*, Iraq flew over 330 antishipping missions and fired 90 French-made Exocet antiship missiles, hitting 40 ships.[14]

Soon after the Iran-Iraq war began, the United States expressed concern for the security of shipping in the Persian Gulf, particularly through the Strait of Hormuz. Because of its hostility toward the United States and toward Arab nations siding with Iraq, Iran was viewed as the primary threat. U.S. Navy ships began escorting American-flag merchant ships in the Persian Gulf after the onset of Iran's attacks on shipping in 1984. In the spring of 1987 the United States, responding to a request from Kuwait for assistance to counter an Iranian campaign against Kuwaiti shipping, and concerned over Iranian deployment of Chinese-made Silkworm antiship missiles, made final plans for reflagging Kuwaiti tankers and providing them with U.S. Navy escorts.[15]

Despite their escort duties, the ships of the U.S. Navy's Middle East Force primarily served political purposes in the Persian Gulf. Their presence was intended to demonstrate U.S. resolve to keep the sea-lanes open and deter

Iranian attacks on American shipping. Special precautions were taken to prevent unwanted incidents. To insure that the many friendly aircraft over the Gulf would not be struck down, the rules of engagement required Navy ships to radio warnings to approaching planes and carefully assess their actions for indications of hostile intent, before firing. Navy ships were warned, however, that the primary danger existed in the possibility of inadvertent attacks and that they were to regard all Iranian and Iraqi aircraft as potentially hostile.[16]

Iraqi aircraft, which were routinely detected on antishipping flights, usually did not provoke reactions by U.S. Navy ships because they were regarded as nonhostile, and their targets were inside the Iranian exclusion zone—well away from U.S. Navy patrol areas. Occasionally, however, Iraqi jets had to be warned away and at least one close call occurred when a U.S. Navy warship was near the target of an Iraqi missile. Iraqi planes were dangerous because they made no effort to identify their targets and fired blindly at radar contacts.[17]

On 17 May the *Stark* was patrolling the central Persian Gulf about 85 miles northeast of Bahrain, 12 miles outside the Iranian exclusion zone. Shortly after 2000 she was informed that a U.S. Air Force AWACS plane had detected an Iraqi aircraft 200 miles from the ship, heading southeast along the coast of Saudi Arabia. The *Stark* picked up the plane on air search radar when it was 70 miles away and detected the Mirage's radar in the search mode. At 2108, when the Iraqi plane was 13 miles away, the *Stark* broadcast a warning, identified itself as a U.S. warship, and requested the plane's intentions. At 2109 the Mirage launched an Exocet missile from a range of about 12 miles. Two minutes later the plane launched a second Exocet missile while the *Stark* was sending a second warning. The *Stark* detected the plane's radar shift into its fire control mode for the missile launches, but did not detect the missiles on radar or their homing radars. The Tactical Action Officer ordered initial defensive actions after the missiles were launched, but the response was too late to be effective.[18]

At 2112 the first missile penetrated the port side of the *Stark*, failing to explode. About 20 seconds later the second missile struck the ship near the first and exploded just inside the ship. The blast tore a large hole in the port side and unexpended fuel from the two missiles ignited an intense fire that required nearly a day to extinguish. Two Saudi F-15 fighters scrambled as the Iraqi jet flew down their coast, but their ground controllers refused to let them pursue the Mirage. No U.S. ships or aircraft attempted to engage the Iraqi plane before or after the attack.[19]

The United States delivered a formal diplomatic protest to Iraq and demanded a full explanation for the attack. Reagan administration spokesmen described the incident as an accident, a case of mistaken identity. The United States also stated that it expected an apology and compensation

for the men who died and the damage to the ship. The Joint Chiefs of Staff revised the rules of engagement for Middle East Force ships, requiring radio warnings and defensive measures be taken at longer ranges, and emphasized that all aircraft approaching U.S. Navy ships must be treated as potentially hostile.[20]

Iraq formally accepted responsibility for the attack, expressed "profound regret," called it an "unintentional incident," and presented a compensation proposal to the United States. Iraqi spokesmen stated that the pilot believed he was attacking an Iranian ship and had not heard the warnings that were broadcast by the *Stark*. Iraq also claimed that the *Stark* had been ten miles inside the Iranian exclusion zone, a charge the United States refuted. Iraq and the United States later reached an agreement on measures to prevent future inadvertent attacks on U.S. Navy ships.[21]

Circumstances of Accidental Attacks

There are strong similarities between the three incidents. A regional war was being fought in all three circumstances. In the *Liberty* and *Stark* incidents, Soviet-American competition for influence in the Middle East was the strategic backdrop for the regional crises, raising U.S. concerns over Soviet attempts to exploit the conflicts for political or even military gain. In the *Panay* incident, President Roosevelt's dedication to opposing German and Japanese expansion, already evident in 1937, would lead, over the next four years, to tensions with those countries analogous to the cold war. The United States was officially neutral in all three conflicts, but the Government and the public were either sympathetic to one side (China in the *Panay* incident and Israel in the *Liberty* incident) or hostile to one side (Iran in the *Stark* incident). Thus, the situation was politically and militarily complex and dangerous in all three incidents—the United States had interests compelling it to become involved militarily, but other interests constraining it from direct military intervention in the conflicts.

The missions assigned to the three ships varied, but there were similarities. In two of the incidents, the ships were protecting U.S. interests: the *Panay* was evacuating U.S. citizens, and the *Stark* was patrolling against Iranian attacks on U.S. and friendly shipping. In two of the incidents, the ships were engaged in surveillance of the local war: the *Liberty*, monitoring Israeli-Egyptian fighting, and the *Stark*, monitoring Iranian air and naval activity. Two of the missions had acknowledged political purposes as well as military purposes: the *Panay* was signaling U.S. resolve to assert and protect its treaty rights in China, and the *Stark* was signaling U.S. resolve to keep the Persian Gulf sea-lanes open. Only the *Liberty's* mission did not have a deliberate political signaling purpose, but it may have inadvertently signaled a strong political message to Israel.

All three ships were required to operate in (*Panay* and *Stark*) or near (*Liberty*) a war zone or the scene of fighting in order to carry out their missions. Two of the ships, the *Panay* and the *Liberty*, were inadequately armed for the duties required if attacked, but the *Stark* was well-suited for its mission. Despite the dangers inherent in such situations, U.S. leaders apparently felt that the threat to the ships was not excessive because the United States was neutral in all three incidents, and either the ships were operating in international waters (*Liberty* and *Stark*), or the potential adversaries had politico-military incentives to avoid incidents with U.S. ships (*Panay*). Evidence indicates, however, that regardless of how well or how poorly armed a U.S. ship may be, or the innocence of its mission, it will be in danger of accidental attack when dispatched to a scene of conflict.

It is recognized that danger exists for ships on a mission in an area of fighting, as evidenced by the precautions that were taken with all three ships. But the threat of indiscriminate attacks—deliberate attacks launched without efforts to identify the targets—appears to have been seriously underestimated and left ships inadequately prepared for, or protected against, such a threat. The rules of engagement authorized measures for the *Stark* to defend itself against indiscriminate attacks—measures that would have been effective had they been used properly at the time of the incident—but the daily contact between Middle East Force ships and Iraqi planes apparently tended to make some of the ships, at least in the instance of the *Stark*, complacent about the threat of attack by the Iraqis. At the time of the *Panay* incident, the United States had been keeping the belligerents informed of the locations of U.S. ships, but this measure failed to prevent an attack. Thus, indiscriminate attacks must be regarded as an inherent danger for U.S. ships carrying out missions in hostile environments.

Small nations are at least as dangerous as major powers, if not more so. In two of the three incidents (*Liberty* and *Stark*), the attacks were waged by small nations with military forces far inferior to U.S. forces in the theater. Readily available modern weapons, such as the Exocet, can make even small navies or air forces very dangerous. That none of the postwar incidents involved the Soviet Union supports the view that tacit but well-understood norms of behavior (rules of the game) regulate Soviet-American behavior in crises.[22] The United States does not share this understanding of behavioral norms with many smaller nations, thus, military accidents involving their forces are much more likely than they are with Soviet forces. Smaller nations are also more prone to launch indiscriminate attacks, relying on the accuracy and destructiveness of modern weapons to compensate for the mediocre skills of the men operating the systems. The fact that a U.S. Navy ship represents the armed might of the United States has little impact on the pilot who is not required to identify his targets before attacking.

Ironically, in two of the incidents, the attacks were carried out by the sides favored by the United States: that on the *Liberty* by Israel and that on the *Stark* by Iraq. Only *Panay* was attacked by forces opposing the United States. This underscores the peril of accidental and indiscriminate attacks happening in peacetime and also warns against the assumption that friendly nations can be relied upon to shield U.S. ships, or even to avoid them. These incidents also caution against reliance on the imaginary lines displayed prominently on charts—the limits of territorial waters, exclusion zones, and war zones—that indicate protection against attacks. Precise navigation is a luxury often forgone, either deliberately or inadvertently, in the heat of battle.

Motives for the Attacks

The official explanation for the attacks, by all three nations, was "mistaken identity." Japan claimed the *Panay* was mistaken for a Chinese steamer carrying troops out of Nanking; Israel claimed that the *Liberty* was mistaken for the Egyptian transport *El Quisir*; and Iraq claimed that the *Stark* was mistaken for a tanker headed toward an Iranian port. The U.S. Government officially accepted the explanations that these attacks were accidents, but rejected that they were based on mistaken identity.

In the aftermath, questions were raised about whether the attacks were, in fact, accidental. American journalist Hallett Abend claimed that Japanese Army officers informed him that Colonel Kinguro Hashimoto, notorious militarist and head of a violent political faction, ordered the attack on the *Panay*.[23] Imperial Japanese Navy officers involved in the incident deny this, and historians have concluded that the attack resulted from erroneous intelligence provided to the navy by the army. There is evidence that this intelligence may have originated with Colonel Hashimoto, thus making him responsible for setting in motion the chain of events that led to the sinking of the *Panay*, even if he did not order the attack as Abend claims.[24]

The *Liberty* incident is by far the most controversial of the three. Former *Liberty* officer James M. Ennes claims that Israel attacked the *Liberty* to prevent it from monitoring Israeli preparations to attack the Golan Heights, a move the Israelis knew the United States opposed and would try to block.[25] This charge warrants serious consideration: from a purely military perspective the attack was a rational action. But the political rationale for supposing the attack to have been deliberate is weak. Israel has, on several occasions, shown a willingness to proceed as it sees fit, regardless of U.S. pressure to the contrary. Why, in this one instance, it was necessary to attack a U.S. ship rather than ignore U.S. pressure is not clear.[26] The political senselessness of a deliberate attack is compounded by the fact that the United

States had begun a policy shift toward alignment with Israel, a move that would have improved Israel's strategic position.

It is beyond the limits of this analysis to resolve the controversy over the *Liberty* incident. The Israelis insist to this day that the attack was an accident and have detailed an elaborate scenario explaining how it occurred.[27] It is not necessary to believe the scenario in order to accept the indiscrimination of the attack: the forces that were sent to find an Egyptian ship attacked the first vessel they discovered, without attempting to identify it.[28] If the incident was an accident, the arguments given by Israel to support their claim of mistaken identity can largely be dismissed as an effort to cover a poor showing by their defense forces.

The *Stark* incident appears to be a clear-cut case of indiscriminate attack, although allegations have been made that it, too, was deliberate. Former U.S. Air Force Middle East analyst Joseph Churba claims that Iraq deliberately attacked the ship to provoke increased U.S. involvement in the Persian Gulf.[29] Of the charges raised in the three incidents, this one is the least plausible and least supported by evidence. No attempt was made by Iraq to disguise the attack as having been the work of Iran; the Mirage flew a flight path to intercept Iranian shipping in the central Persian Gulf but released its missiles about thirty miles too soon. Iraqi leaders would have had to have been extremely ill-informed of U.S. domestic political opinion, which was skeptical of the Navy role in the Gulf, to have believed that such an attack—easily identified as Iraqi—would provoke a greater role in the Gulf. If anything, the attack influenced the United States to delay convoying Kuwaiti tankers.

There are two combinations of motives for the three incidents: the motives for the attacks if they were accidents and the motives if they were deliberate. The first set of motives, those for attacks the perpetrators claimed they thought they were launching, are all routine wartime reasons for attacking ships. Two of the attacks had military purposes: to stop the evacuation of troops in the *Panay* incident and to counter a threat to army operations ashore in the *Liberty* incident. The third attack, on the *Stark*, had politico-economic purposes: to interrupt tanker shipping as part of a campaign of economic coercion. These three incidents illustrate the many tactical circumstances under which accidents can occur.

The interesting question is, why, in light of the purposes for the attacks, were they indiscriminately launched? The primary reason for this preference is a military explanation: to avoid the risks inherent in making positive identification of a target before attacking. This motive appears to be strong for armed forces that have mediocre tactical training and are equipped with powerful modern weapons, and apparently applies to the indiscriminate attacks on the *Liberty* and *Stark*—neither Israel nor Iraq were motivated to identify their targets before striking. Indiscriminate attacks could also be

preferred for political reasons: intimidation or coercion of the enemy and his supporters or retaliation for unrestrained attacks inflicted by the enemy. These motives may be operative at low levels in the chain of command, even when national policy is one of restraint and caution. This appears to have been the reason for the indiscriminate attack on the *Panay*: Japanese military officers in the field were much more aggressive and intolerant of the Western naval presence in China than was the government in Tokyo.

The second set of motives are those for deliberate attacks on ships known to have been U.S. Navy. Two of the incidents had primarily political motives: the attack on the *Panay* demonstrated opposition to the U.S. naval presence in China and its perceived support for China. The attack on the *Stark* provoked the United States into increased military intervention against Iran in the Persian Gulf. The attack on the *Liberty* had primarily military motives—to prevent surveillance of Israeli military activities—although it could have been intended to send a strong coercive signal to the United States not to restrain Israel from achieving its territorial objectives. If the three attacks were in fact deliberate, these motives would not be considered particularly unusual or unexpected.

A wide range of military and political motives for wartime attacks on ships could create tactical circumstances which promote accidental assaults on U.S. Navy ships. The possibility of indiscriminate attacks presents the greatest danger. Belligerents in a local conflict could also have motives for deliberately attacking U.S. ships near the scene of fighting. The fact that the U.S. Government has readily accepted the accident explanation in the past increases the likelihood that deliberate attacks under the guise of accidents could occur in the future.

Responses to the Incidents

None of the three incidents caused the United States to go to war. The danger of an accidental attack perceived as a deliberate provocation or escalation existed in two of the incidents: the *Panay* was attacked by the nation opposed to the United States in the crisis, and there was initial concern that the *Liberty* may have been attacked by Soviet forces. In both cases, however, the perpetrators quickly acknowledged their roles and apologized for the incidents, thus alleviating the danger of strong U.S. reaction. Beyond this, however, U.S. leaders showed prudence in their handling of all three incidents, particularly when the initial, sketchy reports came in. As Phil Goulding observed: "A cardinal rule in an establishment as large as the Department of Defense is to assume that first reports are always wrong, no matter what their security classification, no matter to whom they are addressed."[30] Reactions of U.S. leaders to the three incidents support the view that the danger of an accident being misperceived as a deliberate

provocation is a function of the beliefs and perceptions held by decision makers concerning the conflict and the perpetrator. Even in a crisis, decision makers are capable of sorting out the nature of a military incident, if they are predisposed to do so.

These three incidents confirm four of Lebow's five points concerning the impact of accidents in crises. The political context of the incidents specified the significance attached to them. Leaders in the United States, eager to avoid hostilities or a serious deterioration of relations with the perpetrators in all three cases, were predisposed to accept the incidents as accidents. All three perpetrators quickly sought to dismiss the attacks as accidents in order to minimize the hostility they had conveyed toward the United States. The magnitude of the events did not determine whether or not a crisis resulted: in one incident, a ship was sunk; in the other two incidents, numerous lives were lost without provoking military confrontations. In all three circumstances the United States apparently viewed a recurrence as unlikely—in the *Panay* and *Stark* incidents because the perpetrators gave assurances that action would be taken to avoid future attacks on U.S. ships. Thus, the three incidents confirm Lebow's view that the impact of accidents is highly context-dependent.

Lebow's fifth proposition, that an accident is more likely to be treated as a provocation if it threatens an important interest or commitment, is not clearly supported by the three incidents. The Japanese attack on the *Panay* threatened the U.S. objective of protecting American citizens and interests in China. The Israeli attack on the *Liberty* threatened the U.S. objective of preventing a crisis from escalating to a Soviet-American confrontation. The Iraqi attack on the *Stark* threatened the U.S. objective of keeping the Persian Gulf sea-lanes safe for American shipping. In each incident the threatened objective was a principal U.S. interest in the conflict.

The qualification that must be placed on Lebow's proposition is that the United States usually has multiple objectives in a crisis, and a threat to one important interest may be allowed to go untended in order to further other important interests. During the *Panay* incident, avoiding war with Japan was of greater importance than protecting U.S. interests in China. As for the *Liberty* incident, countering Soviet influence in the Middle East was of greater importance than close surveillance of Israeli military moves. In the *Stark* incident, protecting Persian Gulf shipping against Iranian attacks and countering Soviet efforts to expand their role in the Gulf were of greater significance than deterring Iraqi shipping attacks. Thus, the importance of the interest or commitment threatened by an accident must be weighed relative to other U.S. interests in the conflict.

The three incidents suggest that military accidents are not especially dangerous from a crisis management or escalation control perspective. Indeed, these findings support the view of accidents expressed by Thomas

Schelling: "This is why there is a genuine risk of major war not from 'accidents' in the military machine but through a diplomatic process of commitment that is itself unpredictable. The unpredictability is not due solely to what a destroyer commander might do at midnight when he comes across a Soviet (or American) freighter at sea, but to the psychological process by which particular things become identified with courage or appeasement or how particular things get included in or left out of a diplomatic package."[31] Thus, while accidents are certainly a potential problem in crises, attention is more profitably directed at understanding the objectives, beliefs, and perceptions of national leaders, and the cognitive and political factors shaping decision making.

The *Panay*, *Liberty*, and *Stark* incidents do not suggest that accidental attacks can be prevented in the future. The only assured means of preventing attacks is through avoidance: not sending U.S. Navy ships on missions in or near hostilities. This solution is infeasible when American interests are at stake in the conflict or when forgoing a naval presence would signal an intent to concede those interests. Reliance on diplomacy and international law—declaring American neutrality, emphasizing the nonhostile missions of American ships, and citing freedom of the seas in international waters—have proved ineffective for safeguarding U.S. Navy ships. Even coordination measures, such as recognition signals and providing the location of U.S. ships, though far superior to nothing at all, cannot fully guarantee prevention of accidents.

Navy planners must always anticipate a high risk of accidental attacks against ships deployed in or near a war zone or on the scene of an international crisis. Inadvertent attacks are likely from friendly, as well as from hostile, nations. The greatest danger lies in indiscriminate attacks launched without an effort to identify the target. Belligerents in a local conflict could also have motives to deliberately attack U.S. ships operating near the scene of fighting. Further, unauthorized deliberate attacks ordered by local commanders or forces on the scene are a danger. That the U.S. Government has readily accepted the accident explanation in the past makes it more likely that deliberate attacks under the guise of accidents could occur in the future.

Contrary to the fears expressed by many observers, military accidents have proved not to be particularly perilous from a crisis management or escalation control perspective. U.S. leaders appear intuitively aware of the escalatory dangers of accidents and respond carefully when they occur, even in the midst of a tense crisis. The most important factor for determining the impact that an accident has had on a crisis is, as Lebow correctly pointed out, the politico-military context of the incident, especially the state of the relationship between the perpetrator and the victim. The political pressures

generated by the attack itself are much less important in crisis decision-making than is the political context. Accidents create the requirement to make decisions on national policy in times of crises, but do not inherently generate escalatory pressures so strong as to debilitate crisis management efforts.

Notes

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2. Richard Ned Lebow, "Accidents and Crises: The Dogger Bank Affair," *Naval War College Review*, Summer 1978, pp. 66-75.

3. *Ibid.*

4. Phil Williams, *Crisis Management: Confrontation and Diplomacy in the Nuclear Age* (New York: John Wiley, 1976), p. 202.

5. Richard N. Lebow, *Between Peace and War: The Nature of International Crises* (Baltimore: Johns Hopkins Univ. Press, 1981), p. 287.

6. Manny T. Koginos, *The Panay Incident: Prelude to War* (Lafayette, Ind.: Purdue Univ. Studies, 1967), pp. 6-23; Kemp Tolley, *Yangtze Patrol: The U.S. Navy in China* (Annapolis, Md.: Naval Institute Press, 1984), pp. 239-244; Robert J.C. Butow, *Tojo and the Coming of the War* (Stanford, Calif.: Stanford Univ. Press, 1961), pp. 123-125.

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10. James M. Ennes, Jr., *Assault on the Liberty* (New York: Random House, 1979; Ivy Books ed., 1987), pp. 51-54, 65; Phil G. Goulding, *Confirm or Deny: Informing the People on National Security* (New York: Harper and Row, 1970), pp. 130-132; Stephen Green, *Taking Sides* (New York: Morrow, 1984), pp. 214-217, 226-227.

11. Ennes, pp. 70-124; Goulding, pp. 93-113; Richard K. Smith, "The Violation of the *Liberty*," U.S. Naval Institute *Proceedings*, June 1978, pp. 64-68.

12. Ennes, pp. 89-92, 118-119; Goulding, pp. 97-98; Green, pp. 231-234. Green's account appears to be the most accurate.

13. Ennes, pp. 119-124, 154-158, 171-172, 184-191; Goulding, pp. 123-124, 129, 134-135; Smith, pp. 69-70.

14. "As Tension Rises in the Gulf, Role for U.S. Becomes Issue," *New York Times*, 23 May 1984, p. 1; "Stark Unaware It Was Target, Admiral Says," *Los Angeles Times*, 20 May 1987, p. 1; "U.S. Policy in Gulf Aimed at Halting Iran, Official Says," *Los Angeles Times*, 22 May 1987, p. 1.

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16. U.S. Congress, House, Committee on Armed Services, *Report on the Staff Investigation into the Iraqi Attack on the U.S.S. Stark* (hereafter referred to as *Staff Investigation*), (Washington: U.S. Govt. Print. Off., 14 June 1987), pp. 4-6. For an example of how these rules were used in the Gulf, see "U.S. Confirms Naval Incidents in Strait of Hormuz," *New York Times*, 29 February 1984, p. A7.

17. "2nd U.S. Warship Warned Off Iraqi Jets," *Los Angeles Times*, 21 May 1987, p. 14; *Staff Investigation*, pp. 4-5. The near miss occurred in 1985 when an Iraqi missile struck a ship about six miles from the

destroyer U.S.S. *John Hancock*. See "1985 Iraqi Attack on U.S. Ship Cited," *New York Times*, 24 May 1987, p. 13.

18. *Staff Investigation*, pp. 7-18.

19. *Staff Investigation*, pp. 20-22; "Saudis Balked at Intercepting Iraqi Attacker," *New York Times*, 21 May 1987, p. A1.

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22. On the concept of "rules of the game" in Soviet-American relations, see James N. McConnell, "The 'Rules of the Game': A Theory on the Practice of Superpower Naval Diplomacy," in Bradford Dismukes and James McConnell, eds., *Soviet Naval Diplomacy* (New York: Pergamon, 1979), pp. 240-280; Robert Legvold, "The Super-Rivals: Conflict in the Third World," *Foreign Affairs*, Spring 1979, pp. 755-778; Raymond Cohen, *International Politics: The Rules of the Game* (London: Longman, 1981); Joanne Gowa and Nils H. Wessel, *Ground Rules: Soviet and American Involvement in Regional Conflicts* (Philadelphia: Foreign Policy Research Institute, 1982); and Neil Matheson, *The 'Rules of the Game' of Superpower Military Intervention in the Third World, 1975-1980* (Washington, D.C.: Univ. Press of America, 1981), pp. 99-117.

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24. Perry, pp. 240-243; Swanson, pp. 35-36; Tolley, pp. 250-251; Coox, pp. 83, 91, 98.

25. Ennes, pp. 172-174, 187-188, 191-192, 254-263. Also see Goulding, pp. 123-124, 136-137; Smith, p. 64; and Anthony Pearson, *Conspiracy of Silence* (London: Quartet Books, 1978), pp. 105, 116-118, 163. Pearson's acconnt of the *Liberty* incident is interesting reading, but flawed by numerous serious errors of fact that cast doubts upon his sensational allegations.

26. Israeli leaders, particularly Moshe Dayan (Chief of Staff of the army during the 1956 war and Defense Minister during the 1967 war), may have had an attitude of "never again" toward giving in to U.S. pressure to abandon their military objectives or conquered territory after their experience in the 1956 war with Egypt. In 1956, photographs taken by U-2 reconnaissance planes alerted President Eisenhower to British, French, and Israeli military and naval moves, enabling him to exert strong pressure on the three nations to abandon their plan to seize the Suez Canal early in the operation. *Liberty* could have been viewed by the Israelis as giving President Johnson the same advantage in 1967. On the role of U-2s in 1956, see Donald Neff, *Warriors at Suez* (New York: Simon and Schuster, 1981), pp. 333, 353; and Michael R. Breschloss, *Mayday: Eisenhower, Khrushchev, and the U-2 Affair* (New York: Harper and Row, 1986), pp. 136-139.

27. For the Israeli version of the attack, see Hirsh Goodman and Zeev Schiff, "The Attack on the *Liberty*," *The Atlantic Monthly*, September 1984, pp. 78-84.

28. In an incident strikingly similar to the *Liberty* incident, the Israeli Air Force on 2 November 1956 attacked the British frigate *Crane* off of Sharm el Sheikh. At the time, Israel and Britain were allies in the Suez crisis, and the *Crane* was on patrol as part of their campaign against Egypt. During the 1973 Yom Kippur War, Israeli Navy missile boats accidently fired Gabriel missiles at Greek, Japanese, and even Soviet merchant ships while attempting to attack Syrian naval vessels. See Dupuy, pp. 210-211, 559. Thus, the Israelis launched indiscriminate attacks in the 1956, 1967, and 1973 wars, apparently due to permissive rules of engagement and lax identification requirements. In the 1956 and 1967 wars, the Israeli Air Force appeared to be poorly trained aud organized for war at sea, particularly in the areas of ship recognition training for pilots and intelligence support for maritime operations.

29. The "*Stark* was attacked by two Iraqi jets, not one, experts say," *San Diego Union*, 2 August 1987, p. A14.

30. Goulding, p. 103.

31. Thomas C. Schelling, *Arms and Influence* (New Haven: Yale Univ. Press, 1966), p. 93.

Ψ

IN MY VIEW . . .

Jon Oliver

What Counts? Endgame or Thrill?

Sir,

It would be a pity if the brevity of Ambassador Brement's essay "Civilian-Military Relations in the Context of National Security Policymaking" (*Naval War College Review*, Winter 1988) were overlooked by civilian or military policymakers. While Brement's ten rules derive from recent U.S. experience, they are applicable in various ways to any governmental system based on democratic principles, the separation of powers, and civilian control of the legislative process.

There are some important differences between Australia and the United States in the management and practice of civilian-military relations. These are due in part to our different governmental practices (e.g., Australian Cabinet members are elected representatives), in part to the markedly less "political" role accorded to senior civilian policymakers and military officers by the Australian Government, and in part to a somewhat more formal institutional demarcation between civilian and military staffs in the Australian Defence Organisation. Our structures are such that there are effective institutional barriers in the way of the "half-baked expert" (rule 3)—or at least I would like to think so. Similarly, lawyers and press secretaries (rule 6) have less relevance to the Australian civilian and military policymaker.

But Brement's advice on risk evaluation and the paranoid application of secrecy (rules 1 and 2) should be heeded by all "can-do" cowboys, wherever they are. The gunslingers would also do well to avoid linkage wherever possible (rule 5), unless there are clear, tangible, and lasting national benefits to be derived from the association of different policy initiatives. Zealots

and can-do cowboys are probably one and the same, and their unguided enthusiasms can have untold consequences for government (rule 9). I daresay that M. Mitterand could have done without the spooky zealots who perpetrated the "Rainbow Warrior" bombing in New Zealand.

The false analogy (rule 10) is probably the pit into which the civilian planner is most apt to fall. The "category mistakes" which the British philosopher Gilbert Ryle so strongly counsels against can only be avoided by rigorous analysis and constant rejection of the slick. As Brement reminds us, it is the endgame that counts, not the thrill of the play.

A.J. Behm
Assistant Secretary, Strategic Guidance
and Policy, Department of Defence
Canberra, Australia

A Pacific Strategy

Sir,

In his review of Joshua Epstein's *The 1988 Defense Budget* (Winter 1988), John A. Walgreen has been kind enough to cite my 10 July 1987 *Wall Street Journal* commentary, "Put U.S. Carriers at Russia's Back Door," in opposition to Mr. Epstein's call for a reduced Navy.

Although the problem undoubtedly arises from limitations of space, both as concerns my article and Mr. Walgreen's review, I must point out that what I was proposing is much more complex than "attacks . . . against the Soviet base at Petropavlovsk."

The proposed North Pacific *deterrent* strategy would threaten the entire Soviet domain east of the Ural Mountains and, therefore, the status of the Soviet Union as a world superpower, but without threatening the population or territorial integrity of the Russian heartland. That would require the means to threaten the isolation and defeat of all forces in the Soviet Far East if the Soviets were to move against U.S. and Allied vital interests in Europe or the Middle East.

A 15-carrier navy, as a minimum, focused on the Pacific rather than the Atlantic and using the covered approach of the Aleutians that nature and wise statesmanship has blessed us with would indeed be essential to obtain the initial lodgments. Those would be useless, however, unless we are prepared to follow on with Army and Air Force units large enough and mobile enough to accomplish the largest strategic purpose.

Freed of the unnecessary burden of forward defense that we now bear in Europe—a Europe that has all the population, industry, and wealth needed

to see to its own defense—most of those Army and Air Force units could be maintained in National Guard and Reserve status.

As Secretary of the Navy James H. Webb, Jr., pointed out in his speech to the National Press Club on 13 January, our present static positions in Europe drain us economically and make it impossible for us to challenge the Soviets elsewhere—where they are relatively weak and we are strong or can be made so by better management of existing resources.

The lesson is writ large: We must neutralize the Soviet military challenge without war, particularly nuclear war, and we must regain fiscal wealth. That means living within the present overall Federal budget and competing effectively with our friends and allies. Our present strategy of permitting the Soviets to stretch our forces to the ends of the earth and thereby to bankrupt us simply will not do.

William V. Kennedy
Mechanicsburg, Pennsylvania

The Main Utility of the Navy

Sir,

As the debate on the merits of the Maritime Strategy enters its third year, it may be time to reexamine some of the assessments and assumptions upon which that strategic concept was based. One of the driving factors behind the search for a maritime strategy in the early 1980s was to answer the question: how can the U.S. Navy make a difference in a global war with the Soviet Union that will focus on the European Continent? The answer, or at least one part of an answer, seemed to be found in the anti-SSBN centerpiece of the Maritime Strategy.

The rationale was as follows: The Soviet Navy's principal mission is strategic strike. Prior to the nuclear phase of a war, the Soviet Navy's most important mission is to protect the major reserve component of their strategic nuclear capability, the SSBN force. Their SSBN force is therefore something that the Soviets treasure highly. If this force were to be put at risk immediately at the start of war and continued to be attrited during the early conventional phase of a global war, the impact on Soviet decision makers might be such that they would no longer be assured of an adequate "correlation of forces" to attain victory in the nuclear war that would likely follow. By putting the main striking force of the Soviet Navy at risk in the early stage of a conventional war, the U.S. Navy could thereby have a direct and timely impact on Soviet willingness to continue the war in Europe. Overly simplified here, this basic concept was the cornerstone of the Maritime Strategy.

Several things have changed that dictate a need to rethink this strategic concept. First are changes in Soviet SSBN vulnerability. Quieter and more capable submarines operating in "deep bastions" within layered defensive zones, which include sophisticated defensive minefields, combine to make it more costly for the U.S. Navy to mount and maintain a successful anti-SSBN campaign. Meanwhile, the development of mobile land-based ICBM systems will make the Soviets less dependent on the SSBN force for a nuclear reserve. Thirdly, Soviet military doctrine appears to be downgrading the likelihood of the war going nuclear at all. These factors indicate that a costly anti-SSBN campaign may not be the war-stopper that the Navy desires, since: 1) the rate of Soviet SSBN losses may be less than expected in the past; 2) the Soviet leadership has survivable alternatives to the SSBN force in their mobile land-based systems; and 3) in the Soviet view, nuclear war has become unlikely anyway.

Perhaps it is time to reexamine our Maritime Strategy and rethink the missions of the U.S. Navy in time of global war with the Soviets. What should be the shape of this new maritime strategy? More importantly, what should be the basic mission of the U.S. Navy in a global war? Another way to ask that question is how do we want the world to look after such a war?

Assume that the Soviet ground/air campaign in Europe has gained them some territory. Assume again that after a prolonged conventional conflict in Europe, the Soviets (and NATO) have stopped short of nuclear war. NATO and the Warsaw Pact both will have suffered heavy losses on the ground and in the air. Aside from ensuring the continued flow of military equipment through the Atlantic SLOCs, there is not much that the U.S. Navy can do about fighting the war on the ground in Europe. What it can do however is sweep the Soviet Navy off the sea as a maritime power. It can ensure that in the inevitable peace that follows a ground war in Europe, the Soviet Navy will not be a global maritime player of any significance. It can ensure U.S. maritime superiority throughout the world. This is a significant task, but one that can be accomplished.

Unfortunately, destroying the Soviet Navy as a source of influence might do little for the defense of Europe on the ground. As was apparent in earlier looks at the contribution the Navy could make to a global war (which is what a European war with the Soviets would be), the Navy's impact on such a war would be marginal unless a maritime pressure point could be found. With the increasing cost and decreasing utility of an anti-SSBN campaign, the Navy's direct contribution (as distinct from protecting SLOCs) again becomes marginal at best.

This means that forward operations of U.S. naval forces to destroy the Soviet Navy is a worthwhile Navy objective on its own merits, even though the contribution of such a campaign to stopping the Soviets on the ground in Europe may be negligible. If we can concede continental capabilities to

the Air Force and Army, then we can focus on what the Navy can do to become the predominant maritime power in the postwar world. This does not imply preserving the Navy for postwar operations, but it does imply that perhaps the main utility of the Navy in a war is to defeat the enemy navy and be in position to control the seas and world trade routes uncontested after the war is over.

E.D. Smith, Jr.
Captain, U.S. Navy
Naval War College

Prove It is Critical and Make Money

Sir,

Every semester we run an all-day seminar called the "Technology Transfer Exercise." The purpose is to have our clients develop U.S. trade policy *viv-à-vis* the Soviet Union and "high technology" exports. The rational underpinnings of the argument center on balancing commercial versus security interests. "High tech" can only be continued if it produces profits in the marketplace, yet national security depends on U.S. technological superiority over the Soviets; however, if the technologies are marketed, even if restricted to our close allies, the Soviets will quickly capture the capability. Obviously, the two objectives conflict.

Our seminars nearly always focus on management of the Military Critical Technologies List (MCTL). The players seek to shrink the list, to shorten or speed up the MCTL review process, or to elevate control of the list to a "neutral" authority—or, in many cases, to gain control over the list as a part of bureaucratic power plays between Defense, Commerce, and State. As this fairly well approximates what we see in Washington with respect to the same issue, we have been quite pleased with the "teaching" aspects of the exercise.

However, especially given recent trade negotiations to expand exports to the Soviet Union, we wonder whether the MCTL restrictive approach remains viable. More specifically, the incentive to circumvent MCTL restrictions, by our allies or our own corporations, may be building—and it already is quite significant. Further, defining "military critical" may be nearly impossible as DOD shifts its procurement to "off the shelf" technologies in response to budget reductions. All of this suggests an alternative approach—one that we have only discussed in a preliminary fashion at the War College.

The essence of the new approach would be to shift the burden of proof for "military critical" to industry—instead of having a Federal agency make

the determination. In consonance with this, the Government would provide a profit incentive if the technology were determined to be "military critical." With this approach, it would be up to industry to prove the technology was critical and to prove that it could be controlled (i.e., not available in the marketplace or through other sources). If these factors could be proved, then the Government would increase the profit margin by an amount (say twofold) that would permit the industry to protect the technology. The subsidy would remain only as long as the technology remained "protected."

Obviously, this is a complete reversal of the present approach. However, the present approach is inherently negative—we seek to "deter" or prevent certain trade behavior. The alternative approach is based on "compellence" or rewards for proper action and the reward, higher profit margins, is exactly attuned to the target—commercial industry. Given this, the desired performance would be sought after rather than avoided by the primary actors. Additionally, maintenance of the list would be easier since proving that the technology was available through other sources would be fairly easy.

We do not believe this alternative is the absolute answer—in fact we have not had all that much opportunity to examine the cost impacts of such a policy. But we do believe it is worth considering given the recent failures of the MCTL concept and in the face of increased trade with the Soviets. Plus, incentives always seem to work better than punishment over the long haul.

Stephen O. Fought
Naval War College

Little Naval Presence, Influence to Match

Sir,

I wish to add my support for the joint service medical institution proposed by Captain Arthur M. Smith, MC, USNR, in his essay, "The Influence of Medicine on Strategy" (Spring 1988).

Medical logistics in battle planning is an area unfamiliar to most naval officers, line and medical corps alike, due to the nature of war at sea and power projection missions. In fact, as a former naval flight officer in the attack community, I cannot recall a single contingency plan or exercise scenario in which medical logistics were even considered by strike planners at the ship or air wing level. The combat medical institute proposed by Captain Smith would be the ideal way to introduce both line and staff corps

personnel to the medical logistics aspects of battle planning so they could be incorporated at operational echelons.

Furthermore, I submit that the roots of such an institution already exist at the Uniformed Services University of the Health Sciences, a fully accredited, four-year medical school operated by the Department of Defense on the grounds of the Naval Medical Command National Capitol Region, Bethesda, Maryland.

Each year USUHS graduates approximately 164 medical officers (62 Army, 48 Navy, 48 Air Force, 6 Public Health Service) who, in addition to traditional medical school curriculum, have received training in military applied physiology, medical resources management, military emergency medicine, military contingency medicine, and preventive medicine. Additionally, as Captain Smith suggests, a full year of military medical history is required of all first-year students, and a four-week elective in military medical history is available to students during their fourth year. Furthermore, the USUHS faculty is composed of civilian and medical corps and medical service corps personnel from all branches of the Armed Forces as well as the Public Health Service. USUHS also has extensive liaisons with sister military medical schools around the world so that "combat casualty management experiences" and military medical research can be shared with colleagues.

Virtually every requirement outlined by Captain Smith for his proposed "center for strategic military medical studies" is already available at an undergraduate level at the Uniformed Services University. The logical next step is to expand the resources at USUHS to include graduate-level training in military medicine. This might be initiated by the establishment of a fellowship in military medicine.

The fact that Captain Smith did not mention or consider the resources available at USUHS for his "armed forces medical war college" does not surprise me. Unfortunately, the Armed Forces in general, and the Navy in particular, have been slow to utilize the undergraduate medical training available at USUHS, never mind the development of specialized graduate-level programs. (Lack of Navy participation in USUHS curriculum development is perhaps best illustrated by the fact that there are no courses offered pertaining to the unique requirements of naval medicine despite a host of courses dealing with field medical skills.) This reluctance to fully utilize the Uniformed Services University of the Health Sciences permits its strategic military medical studies potential to remain virtually undeveloped.

David A. Lane
Ensign, MC, U.S. Naval Reserve

"Interesting," Yes. But Ill-Informed?

Sir,

Your review of *War Games* in the Spring 1988 issue requires a comment. While I did wryly enjoy being reprimanded for producing "interesting" writing, I feel that being chided for "unwarranted or ill-informed criticisms" revealed not so much a failing of the book as an undisclosed bias of the writer of the review, Peter Perla.

Mr. Perla questions my remarks about the Navy's hesitancy to allow the sinking of major ships, particularly aircraft carriers, in games. In the book I noted that in recent years the Navy, which pioneered realistic gaming at Newport in the 19th century, had become less interested in "free-play" war gaming and more interested in analytical gaming.

I quoted from a Center for Naval Analyses working paper that said, "People tend to want something to hang their hats on, and numerical results, like two CVs were sunk, are convenient hooks." But, the report went on to say, game results were better expressed "in terms of human interactions . . . for example, a report could say, 'when the losses were heavier than expected a decision was made to withdraw,' instead of 'after losing 12.65 ships, the decision was made to withdraw.' "

As stated in the notes in *War Games*, the co-author of that CNA paper (which became the basis for a *Naval War College Review* article) was Mr. Perla, an employee of CNA.

Thomas B. Allen
Bethesda, Maryland

The Right of Innocent Passage for Warships in the Territorial Sea: A Response to Lieutenant Commander Ronald D. Neubauer, JAGC, U.S. Navy

Sir,

In the Spring 1988 issue of the *Naval War College Review*, Ronald D. Neubauer, JAGC, U.S. Navy presents an argument that the two American naval vessels sideswiped by Soviet ships as they steamed through the Soviet claimed "territorial sea," less than 12 miles from the Crimean coast, were exercising a legal right of "innocent passage." His argument rests primarily on a construction of the 1982 United Nations Law of the Sea Convention. In my opinion he is very wrong on the law and the entire exercise was very shortsighted as a matter of military policy. In my experience, the two things frequently go together.

First to the law. Neubauer points out correctly that in public statements we have accepted the provision of the 1982 Convention dealing with definitions of sea areas and rights of passage, objecting publicly only to the terms relating to the exploitation of the resources of the deep seabed. He does not note that such statements are not binding on us as a matter of law, and therefore not binding on others; or that they are inconsistent in this case with the basic notion of the United Nations Conference that the final text was to be regarded as an integrated whole that could not be accepted in parts. The current American position, that the "negotiating process" determined all the questions of general law that the Convention deals with, is a half-truth, not accepted as a whole truth by our allies or the Soviets. The "process" is certainly legally significant. Its product is not legally determinative; the United States position that it is, is patently self-serving and cannot bind either ourselves or our allies, much less the Soviet Union. Moreover, to understand even the process, the background of general law must be understood. There were many things familiar to the technical lawyers of many countries which were not stated openly, and the terms of reference of the Conference eliminated the possibility of a full record.

There are two major omissions in Commander Neubauer's account that radically change the interpretation he gives to parts of the text. In 1968 the United States acknowledged the legality of the North Korean claim to a 12-mile limit and indicated that had the eavesdropping ship *Pueblo* been captured within that 12 miles, the capture would have been legal under the general law of the sea. Since the Panmunjom Armistice Agreement, and not the 1958 Geneva Conventions, determined the law between the United States and North Korea in that place, and the American position was given without North Korean prompting, the transaction is incomprehensible except as either official incompetence (which is probable) or a major shift in American conceptions of the extent of territorial seas and the incompatibility of passive intelligence reception with "innocent passage." The world read it as the latter, and the 1982 Convention includes what in the Conference was called a "*Pueblo* clause" which says that passive intelligence reception, indeed "any act aimed at collecting information to the prejudice of the defense or security of the coastal state," is not compatible with "innocent passage." Commander Neubauer quotes this language, but without referring to the *Pueblo*. Now, assuming even the unlikely proposition that the American ships off the Crimea were not receiving any useful defense information from the Soviet Union, if other American units were tracking the Soviet reactions to the passage it would be difficult to convince anybody that the passage was "innocent" within the context of the 1982 Convention. Add to that the notion that since the Corfu Channel case between Great Britain and Albania in 1949, "innocent passage" has been considered to apply to warships only in recognized sea-lanes, and the American position,

correctly stated by Commander Neubauer, becomes unconvincing to our allies as well as to the Soviets, however supported in the actual text which we, for whatever self-serving reasons, have refused to ratify.

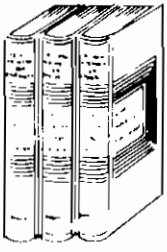
As to the policy, did it never occur to those who planned this operation that the Soviets would react? That if they reacted it was likely to be by provoking a minor incident or planting a mine in waters claimed to be closed to foreign vessels? That whatever the legal arguments that might follow, there was no repair facility for any damaged American vessel while any Soviet injuries could be immediately covered by Soviet action? We are lucky that the Soviets decided to sideswipe our ships rather than tangle their propellors, run a fishing trawler in their path, or plant a mine.

And has nobody considered the possibility of Soviet retaliation by flying high performance aircraft through the far reaches of our 200-mile Air Defense Identification Zone, far enough out to be nonthreatening for purposes of triggering the law of self-defense, but near enough to require surveillance? Cuba used to do that routinely, costing us anxiety and money in the airspace off the Florida coast, until both sides agreed to cool down the risks of accidents there. Does anybody think that it is in our national interest to revive the children's game of dare that preceded the Cuban Missile Crisis? Can Commander Neubauer, or anybody else, think we have a legal right or political interest in sending possibly nuclear-armed ships within 12 miles of the Soviet coast while asserting the right to interdict less threatening aircraft over the high seas 190 miles from ours?

Some years ago I was in the usual argument with a political scientist who asked whether I would rather have national policy determined by lawyers or "realists." I replied that no lawyer was likely to be naive and we could survive a degree of idealism; "realism" was inherently naive and could lead to irretrievable disaster. But in six years as a lawyer for the Department of Defense and in twenty years thereafter, I have rarely run into a case in which a good lawyer and a wise politician disagreed. For the system to work, policy and operations people must focus on the real world as an integrated whole, and lawyers must focus on documents and negotiating processes as parts of a larger legal whole, and also on the relationship between technical words and realities. I cannot believe now that those ordering this Crimean escapade consulted any of the Navy's excellent lawyers or experienced operations planners except, perhaps, while controlling the context so tightly that reality escaped both the realists and their lawyers.

Alfred P. Rubin
The Fletcher School of Law and Diplomacy

PROFESSIONAL READING



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

Admiral H.G. Rickover

Commander George Kraus, U.S. Navy

Kozaczuk, Wladyslaw. *Enigma. How the German Machine Cipher Was Broken, and how It Was Read by the Allies in World War II*, ed. and trans. Christopher Kasparek. Frederick, Md.: Univ. Publications of America, Inc., 1984. 348pp. $24

A large and growing number of books and articles regarding the cryptologic effort by the Allies that resulted in the breaking of the German Enigma machine cipher system in World War II are available to the interested reader. In addition to *The Ultra Secret* by F.W. Winterbotham (1974), which provided for most readers the first intimation of the nature and scale of the success of this effort, books by and about many of the participants have been published, and a number of studies on the use and impact of the actual decrypted traffic on the war's course and outcome are available. A short list of the best of these works to date is appended at the end of this review. While the earliest books and articles were often somewhat sketchy, if not outright misleading, many of the more recent works have benefited from the larger body of declassified material that continues to appear and from more serious scholarly attention to these sources. Nonetheless, the work of reconstructing what really happened and answering the question of whom to credit or blame continues apace. In that regard, and for its impact on World War II, *Enigma* by Wladyslaw Kozaczuk is essential reading for the student of cryptology.

In the fall of 1932, three young mathematicians began work in the Cipher Bureau in the general staff building in Warsaw, Poland. During the next

four months, these men, Marian Rejewski, Henry Zygalski, and Jerzy Rozycki, were able to break the German Enigma machine cipher. From this initial success in January 1933, they continued to read the Enigma traffic through the end of 1939. The Germans' many changes over that period were followed successfully by these men at a time when they were the only existing cryptologic element having such success.

In order to solve the complex unknowns of the changing keys used by the Germans, the Poles evolved the basic tools that were later elaborated and enlarged upon by the British at Bletchley Park (Government Code and Cipher School) to perform the same functions for the remainder of the war. In January and July 1939, the Polish met with the British and French in Paris and Warsaw respectively, and the tripartite collaboration dedicated to the breaking of Enigma was arranged. These meetings were set in motion by Major Gustave Bertrand, Chief of French Radio Intelligence, who had maintained an ongoing collaboration with the Polish since late 1932. The British were reluctant participants, apparently believing that there was little to be gained from such a meeting, though they were not reading Enigma traffic at that time. As Kozaczuk notes, the British ". . . had not been in touch with the Polish cryptologists and did not imagine that they could have any achievements in regard to Enigma." Though little was accomplished in January, the Polish General Staff consented to make available to the Allies in July 1939 the methods and devices developed to read Enigma. The British and French each received a Polish-built duplicate Enigma machine and chapter and verse on techniques of solving the keys. In addition to the reconstruction of the Enigma machine itself, the Polish had developed an electromechanical device designated the "Bomba" (later to be rechristened "Bombe" in its elaborated British version), an aggregate based on six Polish Enigmas that tested all the possible rotor positions to yield the daily keys. They had also worked out a method using specially perforated paper sheets to break the double-enciphered individual message keys. These techniques were also provided to the British and French.

The perceptive reader who is familiar with the Enigma literature will no doubt realize that the reconstructed machine with the details of its internal design and layout complete, including the description of additional rotors that were added to increase the keying complexity, was of paramount importance to the British cryptologic effort. The details of the decryption techniques employed, the "Bomba," and the perforated sheets used to break key were equally invaluable. In fact, though these techniques were later elaborated in both sophistication and scale, they formed the basis of virtually all the Enigma work at Bletchley Park. Thus, a careful reading of this book demonstrates that the Polish solved Enigma and provided the solution and everything that went with it to the British. The enormous and sustained effort, organization, and talent that enabled the denizens of Bletchley Park

to read Enigma traffic thereafter is not demeaned by the acknowledgement of the true extent of the Polish contribution. The author uses personal accounts and documentary sources in Polish, English, French, and German to make his case and includes a detailed set of appendices, including one (Appendix E) by Marian Rejewski that describes the mathematical solution of the Enigma cipher. A reader of the major available works regarding Enigma at Bletchley will be forgiven for not having discovered the true extent of this Polish contribution earlier because the Polish connection generally has been treated in cursory and contradictory fashion.

Although this book is an interesting and necessary addition to the literature about the Second World War, it is flawed. The work is choppy and somewhat disjointed, partly because so much of the story has been put into the copious documentation that follows every chapter, resulting in the requirement to swing back and forth between the details of the cryptologic effort and the grander sweep of wartime developments. It may be that this is the result of a less than perfect translation, but, on the whole, it is only an occasional annoyance. In contrast, the decision to place the more detailed mathematical descriptions of the assault on Enigma in appendices is applauded. This permits reading through the narrative and getting the essential chronology, while those interested in the detailed mathematical treatment can consider Rejewski's solution at their leisure.

Unfortunately, the author makes several errors of fact (of the sort he criticizes in other books that discuss the Polish contribution). For example, he repeats the story of Churchill's decision not to evacuate Coventry despite having been warned of impending attack by decrypted Enigma traffic (p. 167). Though he does note that this tale is disputed, he leaves the reader with the impression that it is at least plausible. The accurate, detailed description of this incident in R.V. Jones' *The Wizard War* shows that it was, in fact, impossible. On page 187 the author asserts that it has now ". . . become clear that the decisive factor in Germany's loss of the Battle of Britain may well have been Allied mastery of Enigma," rather than Britain's use of radar. Once again, I would recommend referring to R.V. Jones for a more balanced view of the defeat of the Luftwaffe attacks. He shows rather clearly the interaction of intelligence, provided from all sources, with the operational employment of air defenses crucially controlled by radar. In the otherwise fairly accurate chapter on "Enigma at Sea" (chapter 14), the author relates an account of the *Bismarck* affair that is neither as complete nor as accurate as the detailed discussion he quotes from Patrick Beesly's *Very Special Intelligence* (chapter 5). Winterbotham, who is extensively quoted, is an unreliable source since much of his book is based on memory and he was not involved in the analysis process. Beesly's account is by far the more balanced and accurate.

The author also engages in an almost Soviet-style aggrandizement of history with his description of the Polish destroyer that "finally located and pinned down" the *Bismarck* (chapter 14, footnote 9). The battleship had been damaged by air attack and her fate was already clear due to her jammed rudder that precluded escape. The Polish ship was one of five destroyers under the command of Captain Philip Vian, RN, that maintained contact with the *Bismarck* until the converging British battleships arrived.

Nevertheless, though imperfect, *Enigma* is an important book about the specialized area of cryptology during World War II. It highlights the critical role of the small but talented band of Polish patriots who were able to hand a most critical advantage to their allies, even as their own country was being overrun by the Germans and Soviets. David Kahn has characterized the breaking of the Enigma machine cipher as one of the greatest intelligence feats of all time, "an accomplishment that, during World War II, determined the fate of thousands." Judged in that light, Churchill's paean to the "few" of the RAF to whom "so many owed so much" after the Battle of Britain, could well be expanded to include these "few" Polish mathematicians.

The following short list includes some of the best books available regarding the business of cryptology during World War II and the use of its product:

Hinsley, F. H. et al. *British Intelligence in the Second World War.* London: Her Majesty's Stationery Office, 1979-84. 3v.

The "official" version of events and certainly the most comprehensive intelligence history published anywhere.

Beesly, Patrick. *Very Special Intelligence.* Garden City, N.Y.: Doubleday, 1977.

This is one of the very best descriptions of the creation of an "all-source" intelligence center focusing on the naval war, with the detail that Donald McLachlan could not include regarding Ultra in his earlier, but still valuable book, *Room 39.* Also see Beesly's:

Very Special Admiral: The Life of Admiral J. H. Godfrey CB. London: Hamish Hamilton Ltd., 1980.

Bertrand, Gustave. *Enigma: ou la plus grande enigma de la guerre.* Paris: Plon, 1973.

General Bertrand's book actually predates the publication of *The Ultra Secret* in the United States and includes many of the same revelations. It also is much more explicit regarding the role of the Polish in breaking Enigma than most subsequent accounts. Nonetheless, Bertrand tends to overstate his role, and the book should be read with care.

Calvocoressi, Peter. *Top Secret Ultra*. New York: Pantheon, 1980.

A short but very useful look at Bletchley by an insider. It includes the most complete and accurate account previously available regarding the role of the Polish cryptographers (chapter 2). The appended note on the Ultra documents released as of its publication (pp. 115-117) is quite useful to the researcher.

Jones, R. V. *The Wizard War*. New York: Coward, McCann & GeoGhegan, 1978.

The best book on the difficult process of intelligence analysis by one of its foremost practitioners. R. V. Jones virtually invented scientific and technical intelligence as a discipline while serving in the British Air Ministry in World War II. His account of some of the most significant intelligence coups of the war are told in both an entertaining and educational way. Certainly one of the single best books on the intelligence business.

Kahn, David. *The Codebreakers*. New York: Macmillan, 1967.

This book predates most of the revelations regarding Ultra and Enigma, focusing on the U.S. efforts against the Japanese. It is, however, a *tour de force* regarding the history of cryptography for the serious student of the game and for the professional intelligence and military officer.

Lewin, Ronald. *The American Magic*. New York: Farrar, Straus & Giroux, 1982.

Lewin, Ronald. *Ultra Goes to War*. New York: McGraw-Hill, 1978.

These two books are among the best currently available regarding the use of Ultra information in pursuing the war effort. Also highlighted is the effectiveness of the disparate commanders in using the often unique insight given them by Ultra.

Parrish, Thomas. *The Ultra Americans: The U.S. Role in Breaking the Nazi Codes*. Briarcliff Manor, N.Y.: Stein and Day, 1986.

A useful insight into the development of U.S. signals intelligence in World War II and the participation of U.S. personnel at Bletchley. Parrish lists Kozaczuk's book in the bibliography and refers briefly, but accurately, to the Polish role (see for example, pp. 50-51 and 112-115).

Welchman, Gordon. *The Hut 6 Story*. New York: McGraw-Hill, 1982.

Another book about the details of the decryption business from a veteran of Bletchley Park. This is both an entertaining and insightful look at cryptological problems and at the personalities of the players, and is most accurate when Welchman sticks to the activities with which he was personally involved. He does, however, include some material of dubious

accuracy. See, for example, his rehashing of a story from William Stevenson's *A Man Called Intrepid* (p. 13), a flawed tale from a flawed and notoriously inaccurate book.

■

Lieutenant Commander Sam J. Tangredi, U.S. Navy

Topitsch, Ernst. *Stalin's War*, trans. A. Taylor and B. E. Taylor. New York: St. Martin's, 1987. 160pp. $19.95

Subtitled *A Radical New Theory of the Origins of the Second World War*, *Stalin's War* is not just another revisionist interpretation of an often-told story. It is undoubtedly the boldest revision yet attempted, representing an authentically novel approach to answering history's greatest enigma: what were Adolf Hitler's strategic goals in launching an apparently suicidal war against all other world powers?

Previous efforts to answer this question have focused on the role of Hitler as architect of the war and ultimate world decision maker. There are various shadings of explanation: Hitler was a psychotic, he miscalculated the character of the Allies, he was a military genius who overextended his forces, he was goaded by the capitalists, etc., etc.

Yet, all the varying interpretations agree on the central role of this one man, although some revisionist writers have passed small bits of conspiratorial guilt on to others—to an uncompromising Churchill or bellicose Roosevelt. But, by consensus, it is still Hitler's war; written, directed, produced, and starring the Reichsführer, who—most fortunately—loses control of the production in the end, although only after the Continent is laid to waste and whole ethnic groups destroyed. However, despite the consensus on the focal point, the question still seems to defy a definitive explanation—what did Hitler really want?

To answer the question, Professor Topitsch inverts it. As a starting point, he posits that it is impossible to determine what Hitler wanted because the Führer did not know what he wanted. Beyond "his twin obsessions" of *Lebensraum* in the East and Teutonic racial superiority, Hitler did no coherent planning and had only the vaguest strategic aims. Controlling the world was grandiose even from a Nazi perspective, and Hitler was often heard to proclaim his regrets at the multifront conflict resulting from continual blitzkrieg.

Concluding that Hitler started a war that was never in his strategic interests (since he had already achieved his immediate aims in the West, without war), Topitsch is forced to tackle the question from the opposite direction and ask: in whose strategic interest was the war that pit Germany against the democracies? While not attempting to deny Hitler's personal

responsibility for the tragedy (and indeed he makes a strenuous effort to disassociate himself from any who might), Topitsch concentrates on the role of the other important European dictator who, paradoxically, provided Hitler with the most assistance in starting the war and then sacrificed the most to defeat him.

Stalin's role as Hitler's ally has been supplanted in most histories by his role as Hitler's enemy. Yet if any leader could be said to have achieved his enunciated objectives through the Second World War, it was Josef Stalin. When the Red Army entered Berlin, Stalin's prewar strategic objectives—effective Communist Party control over Russian society, the expansion of political influence beyond Soviet borders, a permanent buffer region under tight control, and Soviet emergence as the dominant power in Europe—had become reality.

Amongst Soviet sources and German intelligence reports, Topitsch finds documentary evidence that seems to suggest a relationship between the outcome of the war and its origin. The portrait that emerges is that of a deliberate Soviet policy to encourage a war to exhaust both Germany and the West. This was to be accomplished by a planned alliance with and then against the Facists. The first phase would give the Germans confidence in a secure eastern flank while defeating Britain and France; the second—after the German Army had been weakened—would turn the flank into a decisive front.

In this view, Hitler's war for the expansion of the Reich is actually Lenin's predicted final conflict of the imperialist states—the war from which communism would emerge to dominate the industrial world. "We must hasten this war" was the lesson that Lenin tried to drum into his lieutenants. The conventional interpretation is that Trotsky listened and Stalin did not, the latter preferring to build "socialism in one state." Topitsch denies this interpretation; in his theory, Stalin is biding his time until a Hitler comes along, to be first pushed and then crushed. He quotes Stalin's musings from as early as 1925: "If war is to break out, we won't be able to watch in idleness; we will have to enter the fray, but we will be the last ones to do it, in order to put the decisive weight into the scales; a weight that should tip the balance."

The German-Soviet alliance against Poland was, according to Topitsch, the masterful stroke of Soviet strategy: it assured the Germans of a quick success, insured that the eventual German attack on Russia would be temporarily delayed, and provided the actual impetus for a German war against France and Britain. This long-term objective of the alliance was revealed in a telegram sent by the Soviet Foreign Office on 8 March 1941: "The Soviet Union will not interfere with the German action against Greece: this is needed to exert pressure on the English colonies, to threaten the Suez Canal, to hold up supplies for English Troops in Africa. We

must . . . solicit the goodwill of the Greek people, who must fight the German invasion. . . . [But] we have no intention of endangering the German-Russian treaty, which is necessary to fulfill our most urgent aim, namely, the destruction of the British Empire."

Such quotations—although anecdotal in the scientific sense—lead the author to conclude that the Soviets viewed Hitler as the "battering ram against the allegedly strongest bastion of capitalism, Great Britain." Topitsch argues that the origins of the Second World War can never be fully explained until historians realize that the Soviets took deliberate steps to ensure Hitler would indeed go to war, while insulating themselves until ready to unleash the antifascist war and become the "savior" of Europe. In light of this plan, Soviet support for German interwar rearmament and effective betrayal of the German Communist movement are no longer inexplicable.

Of course, the idea that the origin of the Second World War lay in Soviet strategic manipulation only makes sense if Hitler is viewed as a supporting actor in a Stalinist production. Indeed, in Topitsch's play, Hitler is confined to the role that contemporary Soviet accounts attempted to describe for him. The author takes his cue from a July 1940 essay in the Soviet journal *Red Dawn* that put Soviet foreign policy towards Hitler in a Shakespearean perspective: "Like a new Napoleon, Hitler is running amok throughout Europe, conquering great countries, terrifying the placid bourgeoisie. . . . When the work is done, the conqueror of the world, with his fellow criminals, will end up where he belongs—on the rubbish heap of history. The Moor has served his purpose. The Moor can go." Thus runs the author's argument; but is it convincing?

From a purely documentary perspective, the answer must be no. The book is just too brief, and there is no "smoking gun" to convict Stalin in the court of history as the primary mastermind of the conflict. However, as the author makes very clear, *Stalin's War* is not meant to be a history. It is a theory. As such it can only be evaluated on its plausibility and ability to build a model comprised of the available facts. As theory, it is quite plausible and the case presented is well-argued. It may be grossly incomplete; the author relies on the research of others, primarily Grigore Gafencu, George F. Kennan, Phillipp W. Fabry, and Andreas Hillgruber. However, the author's proclaimed objective is to stimulate historical research in a completely new direction. Based on this criterion, the book should be a definite success—stress the "should be." In terms of its theoretical merits, *Stalin's War* is provocative revisionism at its best. However, revisionists of leftist leanings (currently the dominant faction) may find its politics wrong.

All readers intrigued by the Second World War, and certainly all historians, owe this brief book the time it requires—approaching it with an open mind. Like all new or revisionist theories, the book is controversial,

as it is meant to be. Unfortunately, political and emotional factors may confine the audience to a few brave souls. Some may find it too disturbing for future East-West détente. Marxists will dub it neo-fascist. Others will assume it is an attempt to minimize German guilt. I suspect that, in true dictatorial fashion, Stalin would have thoroughly enjoyed the book's portrayal of his cunning and power. After reading it, accurate or not, he would have ordered the author shot.

Treverton, Gregory F. *Covert Action—The Limits of Intervention in the Postwar World.* New York: Basic Books, 1987. 293pp. $19.95

Covert Action is one of those books that one does not have to agree with to appreciate. Zbigniew Brzezinski, for example, finds it "valuable" even though he strongly disagrees with its conclusions. I, too, disagree with its conclusions. I, too, think the book is valuable. This is not simply my charitable nature coming through. Rather, covert action is a very difficult topic to come to grips with, and Mr. Treverton's book contributes to an informed debate—up to a point.

Part of the difficulty for Americans is that we, as a nation, are fairly new to the game. Sun Tzu was thinking about covert action some 2,400 years ago. The czars had an organized intelligence service 400 years ago. The CIA, on the other hand, was established by the National Security Act of 1947—less than half a century ago. We simply have not had much time to come to grips with the issue.

A second problem is that covert action, by definition, is difficult to describe. The thing that differentiates covert action from run-of-the-mill secret activities is the element of "plausible deniability"—hiding the sponsor of the act. There is not much of a data base. Most covert actions never become a part of our consciousness.

A third and final problem is that almost no one is neutral about covert action. Debates rarely focus on utility or effectiveness. Usually, the argument quickly zeroes in on moral and ethical issues. What passes for knowledge is usually opinion—for understanding, usually supposition.

The bottom line is, regrettably, that there is little grist for the mill of informed debate. *Covert Action* performs a valuable service by providing at least some of the background needed and moving the debate toward more useful issues. It is not (nor can any one volume be) *the* answer. To understand the good and the bad of this book, one should approach it from three different perspectives: history, issues, and prescriptions.

History: Students of the history of U.S. covert operations will find this book interesting for its coverage of the early years. Mr. Treverton was a staff member on the first Senate Select

Committee on Intelligence (the Church Committee) in the mid-1970s, and during that time he started work on this book. The year 1975, thus, represents a bit of a watershed. With the access attendant to his position, Mr. Treverton has done a thorough job of detailing the early (and well-known) examples of major covert action—Guatemala in 1954, the Bay of Pigs in 1961, Chile in the early 1960s, the exploding cigars. For the post-1975 period, the documentation tails off with decreased access, and there is not much in this book that has not been reported widely already. Nonetheless, the compilation is useful.

Issues: It is in the area of issues (perhaps more correctly dilemmas) that *Covert Action* is strongest. The coverage is well-balanced, raising the questions that, if addressed, could move the debate away from the issue of morality. One particularly valuable section is "Choosing the Covert Option," in which Mr. Treverton poses the question that covert action planners (and most other planners) should, but too frequently do not, ask before committing people to action. Synthesized, that question is "What do we do if we fail?" The corollary, of course, is that if one plans to fail, success should be the outcome—the worst-case principle. Similarly, the concluding chapter, "Covert Action in an Open Society," is well worth reading for its assessment of the tension inherent in balancing "need-to-know" (covert action) with "right-to-know" (a free society based on representative government). The author's thoughts on the role of Congress (what he calls "the messy bargain") are particularly instructive.

Prescriptions: Regrettably, the author's promising assessment of the issues fails to translate into what I consider sound prescriptions. The book falls short of being a guide for those who plan, approve, conduct, or, in the case of the general public, form opinions on covert actions.

The subtitle, *The Limits of Intervention in the Postwar World*, reflects Mr. Treverton's basic premise that there are certain inevitabilities about covert actions, (a) growing unmanageably large, and (b) being "blown." This may be a selective interpretation colored by his work with the Church Committee whose most publicized work centered precisely on such "blown" operations. The facts, however, argue against the inevitability theory. The Church Committee's report, for example, noted that between 1951 and 1975 the United States conducted some 900 major or sensitive projects and several thousand smaller ones. Similarly, Mr. Treverton estimates that today's intelligence committees must deal with "forty-odd covert actions."

If the inevitability theory holds up, we should expect (and should have expected since 1951) a daily fare of titillating page-one coverage of covert action exotica. Obviously, this is not the case. The percentage has, in reality, been relatively small.

To be sure, in this field of activity, there are organizational limits.

There are problems with accountability in an endeavor that seeks to avoid accountability. There are thorny issues with regard to oversight and there are ways to be more effective than we are.

Covert action is a difficult undertaking, and the operations are sensitive in the extreme. Nonetheless, in a world in which one out of every four countries is engaged in some form of conflict, the United States can ill afford to eschew this option. Mr. Treverton's book should be factored into an agenda for improving, not discarding, our covert action capability.

R. LYNN RYLANDER
Department of Defense

Brown, Anthony Cave. *"C"—The Secret Life of Sir Stewart Graham Menzies, Spymaster to Winston Churchill.* New York: Macmillan, 1987. 830pp. $25

How strategic intelligence is woven into decisions which move armies is described in revealing detail in this well-written, carefully researched, and thoroughly documented book. Told in terms of the life and accomplishments of Sir Stewart Graham Menzies, decorated British soldier and long-time (1939-1952) chief of England's Secret Intelligence Service (SIS), the story reaches into the highest echelons of government in England and the United States and includes material that has become available only in this decade.

Menzies (pronounced Ming-iss) was born in 1890, graduated in 1909 from Eton College, and commissioned into the Second Life Guard's Regiment. In the first part of World War I, he endured 13 months of bitter combat in Belgium, winning two medals for heroism. As 1915 ended, Menzies transferred from line to staff, and thus began 37 years devoted to strategic intelligence.

Anthony Cave Brown points out that when Menzies was appointed to head the SIS in 1939, this office had become one of the most powerful in the British Government. The chief of SIS directed all espionage, counter-espionage, sabotage, and much of the political warfare outside the British empire. Concurrently, he was the principal advisor to the government in matters of foreign intelligence.

Step-by-step, the reader accompanies Menzies the chief, as he learns about the evolution of code-breaking capabilities (which began as early as 1933) and is party to the excitement surrounding the penetration of the most secret codes used by the German high command. This achievement gave the Allied commanders precise and timely knowledge of enemy intentions. The reader also shares Menzies' unceasing concern for the security of the Ultra secret.

Of special interest is Brown's revelation of Churchill's systematic efforts to "drag the United States" into the war. Playing upon the sympathies of President Roosevelt, Churchill followed a deliberate policy to influence American sentiment toward entering the conflict.

Once the United States was committed to combat, the diverse aims of the leaders became evident. Roosevelt hoped to end colonialism throughout the world, whereas Churchill was dedicated to preserving the British empire.

The considerable friction which existed between the SIS and the American Office of Strategic Services is carefully and impartially analyzed and explained by the author.

After the fighting stopped in 1945, the SIS became involved in the cold war. Scandal rocked the British Government when the treacheries of Burgess, Maclean, and Philby were revealed. Menzies retired to private life, unscarred, and did not consider it necessary to defend himself. It is likely the problem could have been avoided had the signs of potential treachery, which were quite evident, been evaluated properly by those in authority, including Menzies.

This attention-holding book is more an institutional history than a biography. There are many exciting chapters and a number of surprising disclosures of interpersonal and intergovernmental relations. The reader must be alert at all times because high drama unfolds without warning and often involves almost forgotten characters.

The index and bibliography are adequate, as is the list of persons who shared their memories of events, great and small. An inexcusably large number of proofreader's errors mar the scholarly tone of this important study of a little-known aspect of modern history.

LANE C. KENDALL
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Allen, Thomas B. and Polmar, Norman. *Merchants of Treason: America's Secrets for Sale, from the Pueblo to the Present*. New York: Delacorte, 1988. 384pp. $19.95

This book is the latest attempt to develop some generalized "lesson learned" from the recent rash of highly publicized American espionage cases, with special emphasis on three Navy cases of interest: the Walker spy ring, the Pollard spy operation, and the U.S. Embassy Marine guards in Moscow. It examines the espionage threat and the U.S. organization for dealing with this threat, using recent spy cases as case studies and providing details of certain cases not yet available from other public sources. For that reason alone, *Merchants of Treason* is worth reading.

The author's basic tenets hold that there is a considerable threat to our security from foreign espionage activity, that we are poorly organized for the prevention and detection of espionage, and that there is a need for a new government agency whose sole purpose would be to direct U.S. counterintelligence activities. While most professional intelligence or security officers would agree with the first two points, the third is a highly debatable conclusion that is not well supported in this book. As

was amply demonstrated after the founding of the Defense Intelligence Agency, for example, the bureaucratic imperatives and parochial views of the various elements of an intelligence community (in that case the various military intelligence organizations) do not necessarily disappear with the establishment of an overarching control organization.

As the title implies, the authors feel that the day of the spy who works for ideological reasons is over; the modern motivation is overwhelmingly financial. This is a rather gross oversimplification of what is usually a very complex issue. The authors indicate, for example, that in the case of Larry Wu-tai Chin, an employee of the Foreign Broadcast Information Service who spied for the People's Republic of China, ideology or loyalty to Chinese communism was a definite factor in his motives. Another recent book on espionage, *Traitors: The Anatomy of Treason*, by Chapman Pincher (New York: St Martin's, 1987), describes a wide variety of 20th century espionage cases from the standpoint of motivation. He concludes that while money is one such motivation, there are so many different factors that may induce an individual to spy that it is difficult to generalize. In both the John Walker and Jonathan Pollard cases, for example, money was certainly an important motivator, but not the only factor. Both of those individuals also craved the excitement of participating in clandestine activity.

Though some sections are well-written, clear, and full of detail, the book is sometimes difficult to read. It seems as though each of the authors wrote sections and then cut and pasted them together. The basic theme is difficult to follow throughout the book, and transitions from one subject to another are often abrupt and confusing.

In their chapter entitled "The Spy Who Saved the FBI," for example, the authors attempt to bring together many of the "loose ends" of the Walker case to establish a theory that the Navy knew about the Walker spy ring before Barbara Walker had contacted the FBI but did not share their information with the FBI. The logic in this chapter is particularly difficult to follow since many of the points discussed by the authors (e.g., the initial lack of FBI follow-up on Barbara Walker's call; the disruption of the "safe" signal at John Walker's 19 May 1985 "dead drop" in Maryland by FBI agents, which warned off John Walker's Soviet case officer; and the fact that the Soviet case officer, 3rd Secretary Aleksey Tkachenko, was not arrested after his car was observed in the area) could all have equally plausible and less mysterious explanations. The only ones given by the authors are those which support their case for a "conspiracy" by the Naval Investigative Service and the FBI to hide the real truth.

These caveats aside, however, this book is a valuable contribution to understanding a modern security problem. The chapter on bringing

spies to justice, in which the authors describe the legal issues involved in investigating and prosecuting spies, is particularly useful. Also of value for those who would like to examine the espionage threat further is a list of source materials. Although footnotes are not used (making it impossible to determine the source and validity of many details in the book), the source section provides an excellent bibliography of material for the serious researcher.

The subject of espionage deserves further serious study. While a new government agency for dealing with spies probably would not be the panacea that the authors believe it would be, the fact is pretty much as they state it: most spies are not caught by U.S. counterintelligence efforts. We must develop a better awareness of the espionage threat among our personnel and a better, more professional means of conducting espionage investigations. This book contributes to public understanding of the issues in the world of spy-counterspy and should be required reading for security professionals.

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Peeples, Curtis. *Guardians: Strategic Reconnaissance Satellites*. Novato, Calif.: Presidio Press, 1987. 418pp. $28.95

Many people in the military and intelligence communities have heard about *Deep Black* (reviewed in the Autumn 1987 issue of this journal), while *Guardians*, the more complete book, is nearly unknown. Both tell how U.S. space reconnaissance began, tracing its development from its beginnings with balloons and aircraft. Both also show how it allowed the United States to face down Khrushchev in the Cuban Missile Crisis. Both discuss at length how politics and world affairs have been changed by space systems; however, each focuses on a different aspect of the space race. If you are interested in systems, what they do and how they do it, then *Guardians* is the book for you. It covers early warning, nuclear detection, ocean surveillance, military man in space, and ferrets (signals exploitation) in great detail. Both books say that it was President Kennedy who ordered U.S. space intelligence efforts to go "black" (compartmented intelligence) in order to avoid embarrassing the Soviets publicly, forcing them to develop the means to shoot them down. While the author of *Deep Black* believes the last six administrations have deliberately lied to the American public in order to spend more billions on space systems and retain control of the arms control process, *Guardians* has a much more balanced approach.

Its discussion of ferrets is especially good, although Mr. Peeples continually uses the term ELINT (radar exploitation intelligence), when the correct term is SIGINT (signals-radar, communications and telemetry-intelligence). Peeples also says this type of airborne reconnais-

sance began after World War II even though there are several histories that trace the start of those efforts to both the Air Force and Navy early in that war. Neither this book nor *Deep Black* mentions the Navy's efforts in this area, a curious omission in view of the writings of Captain Don East and others on the subject.

Guardians does discuss the U-2/ aircraft carrier feasibility studies. It also has excellent histories of the Manned Orbiting Laboratory and the Soviet *Salyut*. In fact, the coverage of all the Soviet systems is very good. The book also has very interesting discussions of the French and Chinese fledgling space programs.

The book ends with an excellent primer on "Orbital Mechanics Made Easy" and an enlightening appendix, "U.S. and Soviet Military Satellite Launches 1959-1985." It would be very interesting to see what Curtis Peeples believes is happening on board *Mir*, the first true space station, and to read his analysis of where both we and the Soviets are going in space now that *Mir* is a fact.

G. GUY THOMAS
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Frankland, Mark. *The Sixth Continent: Mikhail Gorbachov & the Soviet Union*. New York: Harper & Row, 1987. $22.95

Time magazine's 1987 Man of the Year, Mikhail Gorbachov, received top billing in the title of Mark Frankland's book. However, the title is incomplete. A senior British journalist, fluent in Russian, Frankland concentrates on the political intrigue and domestic problems in the 1980s leading up to the current overhaul of Soviet society.

The author's message is that a new energy exists in the U.S.S.R., manifested by a leadership with a visible vitality, in contrast to the lazy, corrupt Brezhnev years, which were characterized by benign neglect. The government and the Communist Party of the Soviet Union drowned themselves in self-delusion by exaggerating the country's achievements and hiding its failures.

The author dispels the notion that Mikhail Gorbachov is a one-man show with his own unique vision of the U.S.S.R.'s destiny. The true restructuring began under Yuri Andropov. When Andropov ascended to the position of Party General Secretary following Brezhnev's death in November 1982, he was appalled at the sloth in Soviet society. Andropov wasted little time in implementing radical changes, such as firing high government and Party officials who had prospered under Brezhnev's inefficient bureaucracy.

Andropov aspired to revive Bolshevik traditions. He climbed the Party ladder under the harsh school of "he who is ready to punish himself wins the right to coerce others." Unlike the jovial, hard-drinking Brezhnev, Andropov was an ascetic who drew on Lenin for inspiration

and sought to redirect the U.S.S.R.'s destiny back to that established by Lenin.

Andropov's untimely death in February 1984 threw these plans into abeyance. The elevation of Konstantin Chernenko, a Brezhnev crony, to General Secretary meant a shift back to easier times for the massive government and Party apparatus. The Chernenko era was short, however; Frankland calls him the "Temporary Tsar." In March 1985 the U.S.S.R.'s leadership once more was in the hands of an orthodox Leninist: Mikhail Gorbachov.

Gorbachov immediately resumed the course set under Andropov. He called for the Soviet people to "restructure" themselves in order to accelerate the gains made by the Revolution in 1917. Gorbachov and the reform-oriented members of the Politburo believed that part of the U.S.S.R.'s decline in the 1970s and early 1980s was due to the ability of government and Party officials to work in secret. This belief provided part of the impetus for the well-known *glasnost* campaign.

The author limits the scope of the *The Sixth Continent* to the great domestic drama that ensued between the death of Brezhnev and the rise of Gorbachov; thus, he spends little time on items of particular interest to naval officers, such as foreign and defense policy. Still, he devotes the last chapter to the Soviet Union's relationship with the rest of the world.

Frankland displays a keen understanding of the Soviet Union. He was a journalist in Moscow in the early 1960s and from 1982-1985. He also has written a biography of Khrushchev in a style that tends to be anecdotal; *The Sixth Continent* reads like a series of political profiles in a long election campaign. Nevertheless, he is capable of incisive analysis. For instance, he criticizes the Soviet thinking which maintains that the U.S.S.R. progressed nicely until "Stalin drove the Soviet Union out of the paradise that Lenin had so carefully planted." He asks to what degree the Party had corrupted itself by claiming absolute power.

The Sixth Continent's story ends in late 1986, before *perestroika* entered the political lexicon of the West. But even without using the word *perestroika*, Frankland provides a fascinating glimpse of its genesis. The restructuring of the Soviet Union did not begin with the publication of Gorbachov's *Perestroika: New Thinking for Our Country and the World* in 1987. Instead, restructuring is a force that has influenced Soviet politics since Brezhnev's last years and is destined to influence it for years to come.

DAVID T. NORRIS
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Podet, Allen Howard. *The Success and Failure of the Anglo-American Committee of Inquiry, 1945-1946: Last Chance in Palestine*. Lewiston, N.Y.: Edwin Mellen Press, 1986. 351pp. $59.95

Military officers have long been aware—often frustratingly so—of

the conflicts between policy and action, between political concerns and field realities. The most successful have been able to achieve an integrated understanding of all sides of questions involving the interplay of international influence, domestic politics, and both the apparent and the real goals assigned to the military. This is not always an easy task. Commonly, the realities of policy negotiation have been obscured by red-herring directives, disinformation given to the media, misinformation collected by them on their own, or excessive classification.

Addressing this problem, Allen Podet has painstakingly unraveled the story of the Anglo-American Committee of Inquiry on the post-war status of European Jews, producing not only an impressive historical study, but an invaluable insight into the methodology of geopolitical negotiation and accommodation.

Using both British and American sources recently made public, Podet investigates the formation, conclusions, and effectiveness of the committee established in 1945 by Harry Truman and Clement Attlee to examine and advise on the plight of Europe's 100,000 homeless Jewish refugees. The international group was tasked with considering the needs of both the Jews, most of whom wanted to immigrate to Palestine, and the Palestinian Arabs—always keeping in mind, of course, American and British political concerns. The British, administering Palestine since World War I under a League of Nations mandate, found their position increasingly untenable: afraid of angering Arab interests, they had curtailed Jewish immigration, thus sparking uncontrollable violence among the Palestinian Jews. At the same time, pressure was mounting in the United States to resolve the European refugee problem. Both countries approached the situation with suspicions of Soviet intent in the area.

In the course of its deliberations, the committee conducted extensive research, interviewing refugees, Arab representatives, pro-Zionist witnesses (including Albert Einstein and Reinhold Niebuhr), Lebanese Christian Maronites, and British officials in Palestine. Their findings indicated that although almost no one was anxious to see an independent Palestinian Arab State, support for Jewish settlement in Palestine was widespread. The committee's eventual report advocated, among other things, immediate refugee settlement without the establishment of a Jewish state.

One of Podet's most significant contributions is his sensitive analysis of the circumstances which led the British to reject the committee's report. The influence of the traditionalist British diplomatic community, still caught up with obsolete views of empire, played on the indecisiveness and weakness of the political leaders. An essential misunderstanding of both Zionism and of Arab thinking, characteristic of the Foreign Office's permanent staff, encouraged Attlee and Foreign

Minister Ernest Bevin to dismiss the committee's conclusions on the basis of erroneous ethnic stereotyping. And the private political agendas of both Britain and the United States skewed reasoned judgment. The results of the consequent makeshift policy are still being reflected daily on newspaper front pages.

Podet has brought to his task not only a scholar's meticulous research, conducted over ten years on both sides of the Atlantic through examination of documents and through personal interviews, but a balanced and objective analysis of the evidence. His stance is neither polemical nor apologist. Rather, he lays bare the complicated and dismaying details of international political manipulation and its effects in microcosm. In so doing, he has not only laid a firm foundation for future work in this field, but he has provided an object lesson of value to all those involved with the advancement of national goals.

RICHARD E. BARCUS
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Yaniv, Avner. *Deterrence without the Bomb: The Politics of Israeli Strategy.* Lexington, Mass.: D. C. Heath, 1987. 324pp. $35

At a time when Israel's conflict has come full circle, with Jews once again facing their Palestinian neighbors just down the road instead of Arab States or remote exile outfits, Yaniv's book provides an excellent guide to what has happened so far and what is likely to happen in the future. The author steadfastly maintains his focus on the formation of Israeli strategy, and that, in turn, has been the chief determinant of the flow of events, notwithstanding the persistent interventions of greater powers outside the region, the constant attempts of other regional actors to impose their will, and the occasional initiatives that succeeded, of which Sadat's diplomatic revolution was by far the most important.

The peculiar value of Yaniv's book arises from his concentration on the level of grand strategy. He resists detours into the military history of the conflict, except to document very specifically some aspect or another of grand strategy. Hence we learn nothing at the tactical or operational levels, and not much at the level of theater strategy (How to defend the Sinai, etc.) or force strategy (How large an air force? What kind of navy?) but, on the other hand, we can really follow the evolution of Israeli grand strategy from 1949 till the present because 278 well-written pages are enough for that, given the author's disciplined refusal to be diverted from his aim.

Were the subject other than the Arab-Israeli conflict, one would not need to add that this is an analytical work concerned with the dissection of events and the evaluation of their proximate causes, i.e., the proper concerns of such scholarship as the field of political science allows. The *ex parte* claims, emotive justifications, deceptive suggestions, conscious

suppressions of evidence, and outright lies that render a very large part of the literature on the subject seriously misleading are not to be encountered in Yaniv's pages. Unlike too many academics bent on usurping the role of preachers, or willing to serve as propagandists for one side or the other, Yaniv neither justifies nor condemns anyone for anything, he cares not a fig for the justice or wisdom of anyone's motives and cooly proceeds to unfold his tale much as if he were an Icelandic historian of medieval Portugal, rather than an Israeli dissecting his people's saga of strife and survival.

As a result of its virtues, the book is most unexpectedly revealing, even to those who may be fully familiar with the events themselves. The first revelation is the focus of the politics of Israeli strategy on explicit theories of deterrence; Yaniv shows that even in the early 1950s Israeli leaders were debating how best to deter Arab attacks in terms still unknown in those days, outside the confines of RAND Corporation and a few other such places. The Israeli Armed Forces still consisted of lightly armed infantry raised in partisan style, the country was still a largely agricultural Mediterranean/Levantine phenomenon, but the strategic thinking would not have been out of place in Santa Monica. Thus we find Moshe Dayan, then Chief of Staff, composing a *Foreign Affairs* article in 1955 to explain the deterrence theory behind the reprisal policy of the time (whose goal was to force Jordan to prevent guerrilla infiltrations); only seven years earlier Dayan's idea of military command was to ride at the head of his jeep battalion, whose only tactic was the frontal assault with all guns firing. The contrast between primitive realities and the terms of Israeli strategic thinking was in fact even sharper: most of the reprisal raids were mounted by Ariel Sharon's commandos, whose appearance, methods, and ferocity would not have been out of place among today's Afghan guerrillas, to the constant amazement of their victims, mostly the well-drilled, neatly uniformed Arab Legion of Jordan, which still had its British officers.

Since those days, Yaniv shows, matters have evolved in a most peculiar fashion, as always because of the underlying political processes that govern Israeli strategy.

On the one hand, the Israeli military establishment has utterly rejected its pristine partisan style, which was inherently counter-technical (as late as 1956 the desirability of fielding tank units was still hotly debated); today's IDF do not merely use high-tech weapons as do so many other armed forces, but also actively develop innovative military technologies across the board, with results that place Israel in a very small category of countries, all but one of which (Sweden) has at least twenty times its GNP.

On the other hand, there has been a definite regression in the sophistication of Israeli strategy at every level. At the level of grand strategy, as the 1982 Lebanon incursion showed, Israeli leaders have lost the ability to

stop short of the culminating point of success in the use of force, a quality which their predecessors certainly had. It was precisely his sensitivity on that score that made Ben Gurion a statesman of the first rank. He was perfectly willing to use force, more so in many ways than Begin (he certainly authorized many more military actions), but he also knew when to stop, and what is more, when to call off victorious action to prevent the decay of victory into defeat. Below that level, technological sophistication has itself taken its toll. Instead of working out sound and mostly economical tactical or operational solutions to military problems as they come up, Israelis are now much more likely to act as their American colleagues might, by calling for a high-tech equipment solution for every problem.

Yaniv's book actually delivers much more than the title suggests, for the reader can learn much from it about the formation of strategy as such, rather than just Israeli strategy. Having struggled with the definition of a general theory of strategy myself, I was intrigued by the theoretical understructure of this important work.

EDWARD N. LUTTWAK
Center for Strategic and International Studies

Berkowitz, Bruce D. *American Security: Dilemmas for a Modern Democracy*. New Haven, Conn.: Yale Univ. Press, 1986. 282pp. $25

Bruce Berkowitz wades right into the many problems facing Americans in their search for a secure world and attempts to sort them out in a logical fashion. He makes clear that reality severely restricts the number and choices of solutions; that solutions are limited by economics, politics, and technology; and that even after a government chooses a solution, in a democracy the governed may still refuse the choice.

The author shows that defense spending has remained fairly stable over the years and that the recent defense buildup is not responsible for the deficit in the federal budget. He holds out hope that major savings in the budget will occur if we make alterations in foreign policy objectives. However, political interest groups, and the role they play in forming and altering defense thinking and choices, often frustrate any hope for savings.

Berkowitz does not see an end to the dilemma of nuclear war because buying nuclear weapons, compared to the other alternatives, is inexpensive. Therefore, it will be difficult to reduce the number of such weapons and their delivery systems, and the author feels that we have a real problem if we tie the traditional arms control agreements to Soviet-American relations. He does not see the proliferation of nuclear devices among nations as the threat some people have determined it will be.

The bulk of *American Security* is devoted to the issues around the Central Front and the defense of Western Europe. Berkowitz

examines a vast range of alternatives and, despite the fiscal appeal of nuclear weapons, eventually sees a conventional NATO defense as the best option; but bear in mind, the author continually reminds the reader that "best" does not necessarily mean "politically feasible."

In examining the Persian Gulf and the Rapid Deployment Force, he reminds us that the United States should not get into a conflict in two places at once.

While many may not agree with Berkowitz' arguments, he is persuasive and clear.

PETER C. UNSINGER
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Amme, Carl H. *NATO Strategy and Nuclear Defense*, Contributions in Military Studies, No. 69. Westport, Conn.: Greenwood Press, 1988. 208pp. $37.95

Time proves it to have been no accident that Carl H. Amme won the U.S. Naval Institute's Annual Prize Essay Award four times in the past, and in 1962 the Navy League's Alfred Thayer Mahan Award for Literary Achievement. His new book could not be more timely in providing the background for consideration of problems of NATO strategy and offering a way out of the dilemma of a policy of no first use of nuclear weapons which has been a tacit part of American strategic thinking since the NATO alliance was formed.

A key assumption of Amme's strategy hinges upon acknowledgment that superpowers have parallel interests in preventing war with one another. There are cooperative as well as competitive aspects to military confrontation. Arms control is labeled by Amme as an aspect of military cooperation. He examines problems and principles useful in nuclear arms control negotiation and implementation.

The author has some fairly controversial solutions to problems of Atlantic alliance defense. They are based in part upon his in-depth knowledge of the strategic alliance, its ups and downs, the effects of de Gaulle's withdrawal of France (which he calls "defection") from NATO's military arm, and the military impact of the independent network of alliances in which most NATO members are linked, Bismarck-style.

Carl Amme proposes an advertised doctrine of nuclear constraints. He argues that this makes it possible to use battlefield nuclear weapons in a selective and discriminate way, even in defensive first use, without escalation as the inevitable result. Promulgating rules of engagement that make it clear to all that first use of battlefield nuclear weapons is not a starter's gun for world war III would diminish fear of tactical nuclear weapons. He discusses the narrow line between "offensive" and "defensive," "tactical" and "strategic" nuclear arms, but argues that modernization has redefined the tactical defensive weaponry essential to NATO military strength in light of Soviet/Warsaw Pact nations holding a preponderance in conventional

force strength not requiring mobilization to report to the front.

Amme's advertised doctrine of nuclear constraints is compatible with the concept of maintaining a "firebreak" against the accidental spreading of battlefield nuclear conflagration. His doctrine translates into a NATO strategy of increased flexible nuclear deterrence capability, while presenting a less provocative and more credible strategic posture to the Soviets.

The author sketches the quarter-century of events since the period when NATO defense strategy was based simply upon the West's tactical nuclear weapons superiority, provides an incisive explanation of de Gaulle's action and its lasting effect, and examines the strategic and tactical posture of the Soviet Union and Warsaw Pact allies. However, his analysis stops short of the warming of détente and the signing of the INF treaty because when the manuscript went to press the treaty was not yet a reality, in spite of a seven-year gestation.

Carl H. Amme avoids falling into the trap of arguing that the principal problem to be solved is military, although the book reflects military solutions and implies that peacetime deployment of forces can carry with it a message of peaceful intent.

NATO Strategy and Nuclear Defense is an important book not for the bookshelf, but as a reference for our own "restructuring."

CAROL FORD BENSON
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George, James L., ed. *The Soviet and Other Communist Navies: The View from the Mid-1980s*. Annapolis, Md.: Naval Institute Press, 1986. 436pp. $24.95

This collection of interesting and important papers, "the second of a proposed continuing series looking at the vital sea-power issues that face the United States and the Western alliance" (from the preface), should be examined by everyone interested in the military competition between the United States and the U.S.S.R. For the specialist, this volume surveys the different perspectives now used in the analysis of Russian naval and military developments. For those who need to focus more on what the Russian Navy might do than on why, this collection of papers and comments provides some thought-provoking ideas.

Composed of papers originally given at the 1985 Sea Power Forum sponsored by the Center for Naval Analyses, *The Soviet and Other Communist Navies* includes papers by established analysts of Soviet naval developments such as Robert Herrick, James McConnell, Michael MccGwire, and Alvin Bernstein. There are also papers on the other communist navies, including those of Poland, the German Democratic Republic, Yugoslavia, Cuba, and the People's Republic of China. The breadth of topics covered and the quality of the papers makes the volume a useful reference to the issues which U.S. policymakers must address when considering U.S. strategy toward the U.S.S.R. and

toward countries in parts of the world where the United States believes it has vital interests.

This book makes clear that the conflict between the United States and the U.S.S.R. is now in its third stage. The first stage, which developed after World War II, found the United States trying to deter possible Soviet attacks in Europe with a military alliance (NATO). In the second stage, reached in the 1950s, the United States and the Soviet Union gained the weaponry to strike directly at each other's homelands, so the confrontation in Europe between conventional forces was supplemented (some would say supplanted) by a confrontation between national nuclear forces. In the late 1960s, the Soviet Union began fielding very modern conventional forces, especially naval forces, and, for the first time, the scope of military confrontation between the United States and the U.S.S.R. began to reach global proportions. Now, both the United States and the Soviet Union are finding it uncomfortably expensive to maintain worldwide, highly sophisticated conventional and nuclear maritime forces. As James McConnell notes in his paper on Soviet naval missions, "In the USSR there is no such thing as naval policy or naval doctrine; there are only naval aspects of a single military policy or a single military doctrine." True. And the leaders of the Soviet Union have recognized that a single military policy of confronting the United States globally has its costs.

Several of the papers make those costs clear from the Russian perspective. In his study of Russian contingency plans for a world war, for example, Michael MccGwire observes that the Russians have one dilemma which the United States does not: they cannot hide behind an ocean barrier. If the U.S.S.R. does indeed decide to attack NATO, and if Warsaw Pact forces can in fact defeat the NATO armies, then the Soviet Union is still left with a problem such as that confronted by Hitler in June 1940—defeating an enemy who cannot be occupied. MccGwire argues that Russian planners have seriously considered holding a defense line stretching from northern Europe across Africa. They have plans, he argues, to keep the U.S. Navy and ground forces from establishing any forward base from which the latter can eventually return to Europe. The Russians, according to MccGwire, have learned that to conquer Europe they must do what Hitler could not—defeat and occupy England, control the Mediterranean, and keep the United States at bay in the Middle East. At the same time, they must modernize their strategic missile forces and work to increase the support they offer other "socialist" nations in the so-called "Third World." A tall order, indeed.

An excellent paper by Richard Haver puts some numbers on the cost of such an effort for the Soviet Union. As Haver shows, the Soviet Union has put its best minds and officers to work building an impres-

sive submarine force. At the same time, however, that force is "dominated by nuclear weapon delivery platforms that possess diminished combat capability in a conventional conflict." As Haver puts it, the Soviet Navy is actually "encumbered by a submarine fleet of growing age, diminishing combat utility, and single-purpose designs." This means that the Soviet Navy is going through a period of change similar to that which the U.S. Navy went through in the 1970s. Ships produced in quantity (like the U.S. ships left over from the building programs of World War II) are being retired. Their replacements are far more sophisticated, but they are also commensurately more expensive. At the same time, missions for the Soviet Navy (like those for the U.S. Navy) have actually increased, so there is a demonstrated need for more sophisticated ships. Where will the Russians turn for a solution to this conflict between cost and numbers?

There are two kinds of answers. One focuses on how to solve such problems in the first place. As Commander James Tritten of the Naval Postgraduate School argues in his study of Russian mine, amphibious, and coastal defense forces, force planners should consider output, or mission, measures of effectiveness in deciding what to develop and procure. Put another way, force planners should first decide what missions they have to achieve, then look for optimal combinations of forces that will achieve those missions. Floyd Kennedy's paper on Russian naval air forces reveals that it was this sort of thinking that led to the very potent Soviet maritime aviation units which today confront the U.S. Navy in almost every important theater. However, in a paper on Soviet naval operations in the North Atlantic and the Arctic, Anthony Wells suggests that the Russians have found a second kind of answer to the cost/numbers dilemma: the use of a special theater (under-ice operations), where the environment acts as a force multiplier. In the Mediterranean, however, the setting has the reverse effect. A paper by Wayne Wright argues persuasively that the Soviet Navy's Fifth Eskadra is not nearly so potent a force as Soviet land-based naval aviation. The waters of the Mediterranean remain essentially a NATO lake.

Indeed, as other papers show, the U.S.S.R. faces serious problems in trying to use its navy as a geopolitical lever because so much of the Soviet Navy is so easily confined to home waters. That does not mean the Soviet Navy is essentially useless as a tool of Russian international policy. It does mean that Soviet leaders must ask hard questions about the value of distant forces when those forces cost more and more. The U.S. Navy (and the U.S. Government) faced the same kind of questions in the 1920s and 30s. The United States wanted to exert influence in China, for example, and a strong fleet, forward deployed (at Guam, for example), might have given the country that influence. But the funds to support such a fleet were simply not forthcoming, and also there

were legitimate doubts that such a fleet could really do what it was supposed to do (intimidate Japan). The same kinds of problems beset both the Soviet Union and the United States today. The solutions are not clear. What is impressive about *The Soviet and Other Communist Navies*, however, is that these problems and possible approaches to them are laid out in one place and in a nonclassified form.

Finally, a word for readers who cannot take the time to read all the papers: some of the commentaries and introductions are in themselves worth reading. Bradford Dismukes provides a good summary of the major analytical approaches to Soviet naval policy in Part One of the volume, and the commentaries by Rear Admiral Thomas Brooks, Dr. Roger Barnett, and retired Admiral Harry Train do what the whole volume aims to do—stimulate serious thinking about military prospects and problems. *The Soviet and Other Communist Navies* is a wonderful summary of current perspectives on, and knowledge of, its topic. Though lengthy, it lends itself both to careful study and to thoughtful browsing.

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Polmar, Norman. *The Ships and Aircraft of the U.S. Fleet*. Annapolis, Md.: Naval Institute Press, 1987. 591pp. $29.95

Since its initial publication by James C. Fahey 49 years and 13 editions ago, *The Ships and Aircraft of the U.S. Fleet* has been a well-known reference book. However, under Norman Polmar, it has evolved into a truly outstanding work. Today it stands as the definitive source of information on the U.S. Navy, presenting a wealth of concise, well-organized data. Ships, aircraft, weapons, and electronic systems are described in detail with accompanying tables of characteristics, ample photographic coverage, and a glossary. The book's large format contributes to easy utility, allowing the photographs to appear in a size sufficient to be useful.

Particularly impressive is the magnitude of the "update" between the 13th and 14th editions. Unlike many so-called "revised" editions, in which a few sentences are added at the end of each section or chapter, this edition truly is a "complete revision." Literally every photograph is new. I reached page 217 before finding a photo (of an LCVP) duplicated from the 13th edition. Even ships in reserve have new photographs. Additionally, line illustrations from the previous edition have been redrawn. The descriptive text and characteristics were updated and rewritten as appropriate. As a consequence, the information is current and useful.

The chapters on ships and aircraft comprise the "core" of the book. Organized into chapters by ship types, each class is covered by a minimum of one full page (9 1/2″ x 9 1/2″) with an accompanying photograph, text, and characteristics table. Ship classes containing numer-

ous units or having particular importance are allotted several pages. As would be expected, there is extensive coverage of the *Iowa*-class battleships, *Seawolf*-class attack submarines, and the *Arleigh Burke*-class destroyers. An equally comprehensive range of information is provided on the amphibious force, mine warfare units, service force, and auxiliaries. New initiatives described in these areas include *Wasp*-class LHDs, LCACs, and the follow-on Swath Tagos ships. A brief section at the end of each ship chapter recalls significant initiatives involving that type of ship since World War II. For example, in the aircraft carrier chapter the end notes deal with post-World War II carrier programs that were never executed, including the *United States* (CVA 58), the Sea Control Ship, the VSTOL support ship, and various medium-sized carriers. Naval aircraft are covered in equally comprehensive detail, with one chapter dedicated to specific aircraft types, while a second chapter discusses organization and employment.

Other chapters in the core section cover the Coast Guard, weapons, electronic systems, and assault amphibious vehicles. All the current and planned radars, EW systems, sonar, missiles, and guns receive coverage similar to that given ships and aircraft (photo, text, and data table), though on a smaller scale. Even the ships and aircraft of the National Oceanic and Atmospheric Administration (NOAA) are described.

In addition, nine other chapters provide a useful overview of the structure and organization of the Navy. These begin with Mr. Polmar's assessment of the overall "State of the Fleet" which presents an excellent, yet concise, analysis of the issues facing the Navy in the future. An evaluation of these issues as they affect specific communities (air, surface combatant, amphibious, submarine, etc.) is also included. Subsequent chapters present a broad range of information, including a chapter on naval organization that, among other subjects, details the specific units assigned to the various fleets and marine forces. Other chapters discuss such subjects as the Marine Corps, the Reserves, strategic sealift, and personnel.

This book is an excellent reference work and provides one with an easily accessible central source of information. Its large size and easy to read style make it a pleasure to use. It is the perfect complement to Mr. Polmar's similarly formatted *Guide to the Soviet Navy*. Together they form an essential aid to anyone interested in the maritime environment.

CHRISTOPHER STASZAK
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Grover, David H. *U.S. Army Ships and Watercraft of World War II.* Annapolis, Md.: Naval Institute Press, 1987. 280pp. $44.95

The Navy has a lot of ships and boats. Clearly, the Navy is proud of

them, and it is glad to tell people not only about those it has and hopes to have, but also about those it once had.

For a fairly long time, the U.S. Army has had ships and boats too. But the Army feels differently about them. To that service, they are merely "floating equipment." Now there are not a great many of them, perhaps 400 altogether, including eight small seagoing ships, a couple of hundred landing craft, and an assortment of self-propelled beach lighters, tugs, barges, and odds and ends.

But during World War II that service owned, operated, or at least controlled, nearly 3,000 seagoing ships and another 11,000 harbor craft. That was about as many as the Navy had at the time, though when barges and landing craft were added, the Army came out way ahead.

Then, and ever since, it has been difficult to find out about this Army "floating equipment" because there has never been a person or office responsible for keeping track of it all. As David H. Grover tells us in this illustrated catalog of the Army's huge wartime fleet, "Army vessel records are scattered throughout a military establishment that today has little awareness of and, indeed, little interest in, its maritime heritage."

Despite those obstacles, Grover has removed most of the difficulties. Among the ships the Army controlled during the war were three former U.S. destroyers, a former U.S. Navy brigantine, a former Coast Guard cutter, an assortment of schooners, scores of tankers, hundreds of cargo ships, and some of the largest passenger liners ever to fly the flag of the United States. Grover not only names and describes them all, but, through generous use of photographs, he shows us what they looked like. He, the book's editor, and its designer all deserve that naval accolade, "Well done."

FRANK UHLIG, JR.
Naval War College

Coletta, Paolo. *A Survey of U.S. Naval Affairs, 1865-1917.* Lanham, Md.: Univ. Press of America, 1987. 265pp. $15.75

In his latest work Professor Paolo Coletta of the Naval Academy offers an outline of "major developments in naval organization, administration, strategy, tactics, construction and personnel policies, operations, and sketches of leading political and naval leaders" from the end of the Civil War to the American entry into World War I. That is a tall order to fill in just 202 pages of generously illustrated text. Nevertheless, Coletta comes to grips with his topic with few wasted words.

The period of decline in the Navy following the Civil War; the Navy's renaissance; the war with Spain and American imperialism; Theodore Roosevelt's navy; "Dollar Diplomacy" and the Navy during the Taft administration; and the Navy during Woodrow Wilson's first administration: all these subjects are explained clearly and concisely in Coletta's skilled narrative and analy-

ses. Understandably, French H. Chadwick, Bradley A. Fiske, and Bowman H. McCalla, all of whom have been subjects of earlier Coletta books, play large roles in this account, but other naval officers rarely encountered outside specialized monographs, including A. Ludlow Case, Caspar F. Goodrich, and William F. Fullam, are introduced into the general scheme of things.

Coletta provides a thoughtful summary of the resolution of the fire control problem in the Navy, as well as a good treatment of the early years of submarine development and of naval aviation. The end notes and bibliography add significantly to the value of the work as a text for naval history courses, or for individuals seeking further knowledge of the period.

Given the book's broad scope, yet economical length, it is inevitable that something would have been left out. There is no mention, for example, of the *Baltimore* incident in Chile in 1891 and subsequent developments which brought the United States to the verge of war and "Fighting Bob" Evans to national prominence. Nor is there any mention, in the treatment of the Spanish-American War, of the record-breaking cruise of the U.S.S. *Oregon* and its implications, although it does receive brief attention in an unindexed passage in the book's concluding chapter. Also, exception might be taken with some of the author's assertions concerning the debate over battleship designs in 1908. But these are the hazards inherent in writing a broad, descriptive survey of any topic.

The major criticism of this work lies not with Professor Coletta's scholarship, but with the sheer mechanics of publication. Typographical errors abound. A computer may do an excellent job of spell checking, but cares not one whit about the context in which the words appear. Although the reader may be amused to read that the secretaries of the Navy of the period were unable to give the Navy "military irections" (directions) (p. 11), and that the 26,000-ton dreadnoughts *Wyoming* and *Arkansas* had four crews (screws) (p. 169), other errors are more confusing and detract from the value of the book. One paragraph (correctly spelled) is repeated in full (p. 164), as is one appendix; and left to its own devices, the computer went beserk in some places when ordered to underline. Further, many index entries list incorrect page references for their subjects. In these respects, the book sadly lacks the human finishing touches which a reader might reasonably expect the publisher to provide.

Such criticisms notwithstanding, this book fills an important gap in existing naval literature and one can but hope that in subsequent editions—and it is a book worthy of subsequent editions—the mechanical errors noted above will be corrected.

JAMES R. RECKNER
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McLynn, Frank. *Invasion: From the Armada to Hitler, 1588-1945*. New York: Methuen, 1987. 224pp. $39.95

The last successful invasion of Britain took place in 1066. In the time since, although many enemies either singly or in alliance have made elaborate plans for invasion, all such attempts have been turned aside.

In a study of wide-ranging scope, Frank McLynn describes the essential conditions which allowed Britain to repel invasion over the long course of history. The weather, always a key, unpredictable factor, aided the defense of the realm and gave rise to the legend of a "Protestant wind" which seemed to favor only the defenders. An excellent supply of experienced sailors, crafty naval leaders, and apparently unending good luck also assisted immeasurably in the English ability to resist invasion.

The development of the Royal Navy might appear to have been a guarantee against invasion. McLynn, however, points out a little understood consequence of the rise of British sea power. The development of the Royal Navy, together with the birth of modern imperialism, were inducements rather than deterrents to invasion. According to McLynn, since 1066, the imperial, not the continental, factor precipitated most threats of invasion. The political significance of the navy also increased as it became the principal means of defense against enemies intent upon attacking the English heartland to redress British worldwide naval and imperial hegemony.

McLynn also describes how the eclipse of empire during the twentieth century may have resulted in a loss of motive for invasion. The consequence of this decline, as McLynn suggests, is that because Britain is no longer a first-class imperial power, the reason for any future plan of invasion would seem to lie in Britain's role as "America's aircraft carrier."

As a *tour d'horizon* of invasion schemes over the centuries, McLynn's book provides a useful source of examples for naval historians to examine the ways in which problems have influenced, shaped, and sometimes hindered strategic thinking. The book is also a helpful reminder that, despite over four centuries of invasion attempts, there was nothing unique about any of the problems faced and schemes proposed by would-be invaders from the Armada to "Sea Lion."

KAREN D. LOGAN
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Gailey, Harry A. *Howlin' Mad vs the Army*. Novato, Calif.: Presidio Press, 1986. 278pp. $17.95

"A grain of sand is not a beach." A trial lawyer frequently pursues this simple truth in defending a client. He painstakingly examines and cross-examines every miniscule act committed and every word uttered as pertains to the critical event that led to the charge against

his client. His object, of course, is to disassemble the "beach"—whatever it is the client is accused of having done—grain by grain.

As each "grain" is held up to light and scrutinized, the question is asked, "Just a grain of sand. That's not a beach, now is it?" And the witness has to respond, in all truthfulness, that it is not. Bit by granular bit the case against the client is dismantled so that all that remains are individual grains of fact.

Such is Harry A. Gailey's approach in *Howlin' Mad vs the Army*. The central conflict—the "beach," if you will—is the relief of Army Major General Ralph Smith from command of the Army's 27th Division by Marine Lieutenant General Holland M. Smith. The occasion was the invasion of Saipan in 1944. Holland M. Smith commanded the V Marine Amphibious Corps, of which the 27th Division was a part.

As students of the Marianas operations already know, plans for the capture of Saipan called for a three-division advance across, then up, the island's axis. The Second and Fourth Marine Divisions flanked the offensive; the 27th Division formed its center.

However, as the flanks advanced, the center faltered, then halted, and gaps emerged where the Marines' and soldiers' flanks should have tied. Gaps developed into pockets of organized, fanatical resistance by the Japanese, and so the Marines, of necessity, slowed their advance. To H. M. Smith the problem was an absence of aggressiveness in the Army's leadership; he relieved Ralph Smith in the field. "The rest," as they say, "is history."

Gailey prefaces his book with this disclaimer: "I . . . never intended this work to be a type of legal brief presenting General Ralph Smith and the 27th Division's case by reporting on a point-by-point basis what H. M. Smith had written earlier [in his memoir, *Coral and Brass*]. I hope it does not appear so to the reader." It so appears to this reader.

Howlin' Mad vs the Army conjures up a mental image of the awful events on Saipan being recreated in a courtroom with the aid of instant-replay television. As every event relating to the 27th's failures to advance is recounted, the author effectively asks by implication, "Contrary to what Holland M. Smith wrote and said, that wasn't General Ralph Smith's fault, now was it?"

The author's ultimate point appears to be that Holland Smith was unsuited by temperament, experience, and ability to command a joint-services campaign, that he expected too much of the Army, and that he sorely maligned Ralph Smith particularly and the U.S. Army generally. The point the author fails to explain away is that, in combat especially, all men are judged ultimately by their results—the 27th Infantry Division did not accomplish its missions under Ralph Smith; it did under his replacement.

I cannot fault Gailey for lack of thoroughness in research. He exhausted published, archival, and original source materials in preparing

this book; copious research notes are included as an appendix.

However, I failed to discern any military lessons to be learned from *Howlin' Mad vs the Army*; the book's greatest utility perhaps may be as a ready reference for any point-counterpoint argument one may have as to whether Holland Smith was justified in relieving Ralph Smith. If you face the spectre of that issue raising its ugly head anytime in your career, you might find *Howlin' Mad vs the Army* useful; otherwise, however, your professional library will be complete without it.

ARLEN B. COYLE
Captain, U.S. Naval Reserve

Vaux, Nick. *Take That Hill! Royal Marines in the Falklands War*. Elmsford, N.Y.: Pergamon, 1987. 256pp. $21.95 paper $13.75

Major General Nick Vaux, Royal Marines, has written a marvelous story about his experiences as commanding officer of 42 Commando during the recent Falkland Islands campaign. The book begins in April 1982 when then Lieutenant Colonel Vaux and his commando were alerted to a crisis in the Falklands and ends with their triumphant return to England in July.

It covers the severe hardships they endured as a result of the extreme weather and terrain conditions in those South Atlantic islands, their valiant fight under adverse conditions, the administrative and logistics problems inherent in any distant operation, especially one organized on an *ad hoc* basis, and the successful completion of their mission.

Although the emphasis is on 42 Commando, the author gives appropriate credit to the other units involved: the entire Commando Brigade, various British Army formations (especially the two parachute battalions), the Royal Navy, and the commercial ships and their crews.

As noted by other commentators, this is not a book on strategy. Rather, it addresses fighting from the company level down to the individual level; how well the Marines performed.

There are many examples of tactical brilliance, individual heroism and endurance, and battlefield humor; Argentine POWs thought that the arrival of a British chaplain meant that they would receive the last rites before being executed. Decisions made in the comfort of Northwoods in England were not always appreciated in the wind and rain of the islands. Once again, the complexities of amphibious operations and the detailed planning required for them are well-illustrated. In this case the illustrations include the importance of civilian shipping, the scarcity of air and logistics support, and the terrible weather. Tactically, 42 Commando landed as the reserve, moved forward to become a front-line unit and, finally, seized their assigned objective, Mt. Harriet. These maneuvers required the commando to overcome a variety of tactical problems, not the least of

which were C³; the need to march at night; the scarcity of helicopter support; and the need for individuals to keep in mind their own survival.

Their commanding officer has written a well-deserved tribute to his men and to those who fought alongside them or supported them.

W. P. C. MORGENTHALER, JR.
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Turner, Robert F. *Nicaragua v. United States: A Look at the Facts.* McLean, Va.: Pergamon-Brassey's, 1987. 159pp. $9.95

" . . . if the US Congress decides once again to deny support to groups in Central America who wish to resist the Sandinistas, Nicaragua—with the continued support of Cuba and the Soviet Union—can be expected to succeed in its efforts to overthrow neighboring democratic governments." On 3 February 1988, four weeks after the book containing this warning became available, the U.S. House of Representatives defeated a modest funding request that was 90 percent humanitarian and 10 percent military assistance.

If persuading the U.S. Congress to identify Nicaragua as the military aggressor in Central America is the norm by which Robert F. Turner's book must be judged, the verdict is in and he has failed. Yet, the case is rationally argued, assembled with balance, and meticulously documented.

Turner's "Background to Conflict" chapter describes the legacy of the two U.S. military occupations of Nicaragua, the broad-based Sandinista revolution of 1977-1979, and two years of U.S. economic support for the new regime. Next, the "Marxism-Leninism" chapter details the long-term process, 1961-1979, by which a dedicated minority manipulated the revolution and seized control in the hour of victory. That margin of control, Turner demonstrates, was Cuban support carried out within Managua by expert conflict managers.

The strongest chapter is "Nicaraguan Aggression Against El Salvador," which outlines the steps by which Cuba's government used Nicaragua as a staging base for arming and assembling a revolutionary coalition in El Salvador. Some attention is devoted to the brilliant steps by which disinformation and active measures were employed to deceive members of the U.S. Congress, the press, and the celebrity world. Succeeding chapters reveal a surprisingly well-documented pattern of Sandinista aggression against Honduras and Costa Rica.

The final chapter is a moral and legal argument for U.S. aid to the democratic resistance (Contras). Turner, once a U.S. Army officer and later a State Department official in South Vietnam, offers no melancholy domino theory, just a warning that the United States will be forced to pay a higher military price to neutralize Soviet surrogate military power in Central America later.

Turner clears up many common misbeliefs about recent turmoil in Nicaragua and El Salvador. The Sandinistas militarized to a level ten

times higher than the Somoza regime they overthrew two years before the United States carried out modest regional defenses and support for the democratic resistance. For twenty months the United States gave the victorious Sandinistas their largest aid package, greater than the sum provided to all the rest of Central America.

How then could anyone read this book and still hesitate to quarantine the Sandinistas, militarily, through force of their own people who saw them steal the revolution? Robert F. Turner, eminent international legal scholar of East-West surrogate conflicts, omitted a key chapter on the Soviet Union's role in Central America from this otherwise superb book. He does not seem to comprehend that the U.S.S.R. uses first party (Cuba) and second party (Nicaragua) military surrogates because the United States lives in dread of being branded what it is—the ultimate military force in preserving Western civilization.

RUSSELL W. RAMSEY
Air Command & Staff College

Nalty, Bernard C. *Strength for the Fight*. New York: The Free Press, 1986. 424pp. $22.50

Subtitled *A History of Black Americans in the Military*, Bernard Nalty's comprehensive account takes its title from a line in "The Warrior's Prayer" by black poet Paul Dunbar who did not ask the Lord to front the fray but to give him strength for the fight. Since the American Revolution, blacks have been part of the American military. The experience of blacks in the military has paralleled their experience in American society—they have been sought when manpower was needed and rejected when it was not. Although this could be an angry book, Nalty has written a scholarly, objective history.

Black sailors were initially welcomed into the Navy during the days of the lash, salt pork, hammocks, and weevily biscuits. It was a hard service and few men volunteered for it. Up through the Civil War, black sailors were integrated into the sea service although there were no black officers. As it turned from sail and muscle to steam and machinery, the Navy's attitude was that blacks were inherently unable to learn the increasingly technical skills required. Additionally, Jim Crow had set into American society and it was believed that white sailors would be unwilling to serve with blacks. Blacks were thus largely confined to mess attendant duties. By the time the "Great White Fleet" sailed around the world, it was appropriately named.

The Army raised "colored" regiments during the Civil War. After the war, Congress limited the Army to four such regiments—the 9th and 10th Cavalry (of no small fame in Western history and legend) and the 24th and 25th Infantry. The 10th and 24th distinguished themselves in the assault on San Juan Hill which Theodore Roosevelt conveniently forgot as the legend of the Rough Riders grew.

When the First World War began, many blacks agreed with W. E. B.

Dubois who urged blacks "to forget our special grievances and close ranks with our own white fellow citizens." The nobility of this sentiment was not returned. Black units in that war did a disproportionately large share of the drudge work with few opportunities to show their capabilities. Black combat units were poorly led by white officers and often performed accordingly. They were then castigated for fulfilling a self-fulfilling prophecy.

As Woodrow Wilson segregated the Federal civil service after the war, a variety of bureaucratic mechanisms were found and used to keep blacks out of any significant role in the peacetime military. The new Army Air Corps was totally white and determined to remain so.

By 1941 aviation had captured the Nation's imagination. Opportunities for blacks to learn to fly and to serve in technical capacities in the Army Air Corps thus became important to many American blacks. Under great pressure, the Air Corps did establish a completely segregated flight training program for blacks. From this program came the famous "Tuskegee Airmen" who, when finally allowed to fly in combat, never lost an escorted bomber to enemy fighter action. An impressive number of these airmen went on to prominent positions in the postwar era.

For the Army and Navy, the problem was to maintain a segregated military unit structure in the face of combat demands for manpower. Initially this was done by assigning blacks to supply and transport units. As the war progressed, this resulted in black manpower being inefficiently used while combat units were in serious need of trained replacements. Under this pressure the Army finally began to assign small black combat units to larger units. The Navy opened a number of rates to blacks who were then assigned to selected replenishment vessels. The fast carrier task groups remained all white.

Blacks began the war by seeking significant combat roles in the belief that by so contributing to their country's defense they could gain their full and rightful place in America. They would be disappointed. For political and other reasons, President Roosevelt and the top military advisors were infinitely slow to recognize this and to respond. Secretary of the Navy Forrestal was the most senior official to push for full integration and he was unsuccessful.

After the war, segregation began to return to the Armed Forces, especially the Air Force. The Gillen Board tried to work out an equal opportunity solution within a segregated context. With the rise of the Soviet problem in Europe, it became clear that the United States was not going to be able to allow the postwar military to revert to the small, almost private club status of previous peacetimes. Responding to this and to his own deep sense of what was right, President Truman signed his executive order of 26 July 1948 banning all forms of discrimination in the Armed Forces of the United States.

This had an immediate and dramatic effect, putting the Armed Forces almost at the forefront of

social change—something that armed forces usually have little experience with. The services responded well within the confines of what they perceived to be their strictly military responsibilities.

As opportunities for blacks opened and expanded in the services, serious problems remained in matters of off-base housing, recreation, and customs of the local communities, as well as in military practice, tradition, and justice. These issues were recognized at unit levels but, in spite of pressure from the national black press, were largely ignored by the Eisenhower and Kennedy administrations.

These problems festered through the 1960s and eventually resulted in disturbances such as those experienced by the Navy on the *Kitty Hawk*, and *Hassayampa*, and the *Constellation*. By then the services had enlisted significant numbers of young urban blacks whose prior education had ill-prepared them for the technical demands of the Navy and whose prior experience had conditioned them to be suspicious of authority, especially when exercised by a white face in uniform. While the hardships of shared combat in Korea and Vietnam had built front-line units with good racial relations, the situation in units not directly exposed to combat had deteriorated. The symbolism of flags, handshakes, music, and patois had led to serious frictions which were not recognized by those in command. As a result of these disturbances, the services undertook major programs of education and training to improve interracial tolerance and sensitivity.

The author is optimistic about the racial situation in the All Volunteer Force. Even in a booming economy, many young people are finding the military an attractive route to betterment. They enlist with a desire to improve themselves and do not seem to bring with them as much of the tensions of the civilian world.

Although Nalty is critical of the actions and attitudes of many military officials in this history, he does recognize the important contributions of several dedicated senior officers to improving the position of black Americans. Men such as Noel Parrish in the Air Force and Draper Kauffman in the Navy (for whom the recently commissioned FFG-39 was named) are cited for their genuine sensitivity to the needs and capabilities of their men and the actions they took in response, often with no great support from their superiors.

Nalty shows us clearly that race relations in the military have been a reflection of the attitudes of our nation. His story is one of individual glory and institutional failure. It is not an easy story to read, but it is ultimately an optimistic one showing that Americans can recognize when we need to do better and then do it.

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RECENT BOOKS

Annotated by
Christine Danieli, Christine Fagan, Lynne Tobin et al.

Best, Edward. *U.S. Policy and Regional Security in Central America.* New York: St. Martin's Press, 1987. 182pp. $32.50

A crisis exists in Central America due to its internal social, political, and economic problems. Best explores several policy options (military intervention, containment and coercion, and settlement) and their implications in an attempt to show U.S. determination to avoid another Cuba or Vietnam. Accordingly, the United States has increased its state of readiness and preparedness in an attempt to restore regional stability and safeguard its interests in the region. A well-written evaluation of U.S. policy.

Bloom, Allan D. *The Closing of the American Mind.* New York: Simon and Schuster, 1987. 392pp. $18.95

Professor Bloom argues in his best-seller that today's students have no firm foundation in ethics and humanities; rather, they are taught relative values and technological subjects. Colleges and universities, therefore, are failing the Nation by producing citizens uneducated in the classics of Western culture and the politics of democracy. Bloom's style is persuasive and should touch a fundamentalist chord in most readers—have we not always been easily convinced of the decline of the younger generation? *The Closing of the American Mind* should be read as a stimulus to thought and argument on methods for improving our educational system and not as the ultimate answer.

Calleo, David P. *Beyond American Hegemony: The Future of the Western Alliance.* New York: Basic Books, 1987. 288pp. $20.95

According to David Calleo the time has come for the United States to recognize its limitations as a superpower and to share the burden of the Western defense on a more equitable basis with our European allies. Although this concept is not new, Calleo's approach is refreshing and constructive. He sees this transition as a positive result of global recovery from the devastation of World War II as well as an imperative step in avoiding an American decline due to overextension. Calleo applies his

expertise in both American-European relations and political-economic issues in developing his opinions on the future of NATO and American foreign policy.

Chopra, V. D. *Pentagon Shadow over India*. New Delhi: Patriot Publishers, 1985. 223pp. $5

The basic premise of this political discourse is that the United States is a racist and neocolonialist power run by the military. In order to prove this, Chopra delineates the history of British and American foreign policy relating to India and then illustrates how U.S. policy currently seeks to surround India with American-aligned countries. India has chosen an independent path of capitalist development and is a political leader of the nonaligned nations; therefore, it is an offense to American imperialism. According to Chopra, India believes in peaceful coexistence and desires that the Indian Ocean be a zone of peace. He is convinced that the Pentagon's geopolitical plans will adversely affect India's unity and security. The author cites America's self-assignment as leader of the free world, the decrease of civilian control over the Pentagon, and the rise of military power in the U.S. economy and politics as his supporting facts. His book is useful for discussion and for the reader who needs to understand this Asian view of U.S. foreign policy.

Cordesman, Anthony H. *The Iran-Iraq War and Western Security, 1984-1987: Strategic Implications and Policy Options*. New York: Jane's, 1987. 185pp. $28

Labeling the Iran-Iraq war a "war of lies" due to propaganda and press distortions, Cordesman draws from a variety of media sources in order to provide statistical information on arms shipments, oil production, reserves and exports, military manpower, and trend projections. He focuses on strategic implications and Western policy options rather than on actual causes of the conflict. In discussing the forces that shape the course of the war, the author devotes a separate chapter to each of the years mentioned. His prognosis is grim—intangibles such as morale and the mistakes and successes of individual commanders might influence the outcome of the war and that the war could even broaden to include nearby states.

Esposito, John L., ed. *Islam in Asia: Religion, Politics, and Society*. New York: Oxford Univ. Press, 1987. 272pp. $29.95

For many Americans, Islam is a concept that elicits a negative response often based on fear and misinformation. In 1983 the Asia Society launched a program to address this problem through conferences, meetings, and publications—such as this book—designed to illustrate how Islam affects Asian society and politics. This collection of essays highlights the diversity and complexity of Islam by focusing on its varied effects throughout Asia. Thus, the Asia Society hopes to foster some sense of objectivity in the

American approach to international relations in Asia. Essays are explanatory and cover several countries from Iran to the Philippines. Surprisingly, despite its large Islamic population, Bangladesh has been omitted.

Guerrier, Steven W. and Thompson, Wayne C. *Perspectives on Strategic Defense.* Boulder, Colo.: Westview Press, 1987. 358pp. $29.95

The editors, Guerrier and Thompson from Virginia Military Institute, have put together a very useful sourcebook on the Strategic Defense Initiative (SDI or "Star Wars"), based on two symposia held at VMI in 1986. Part one contains papers submitted for the symposia, edited transcripts of remarks made at the conferences, and some question and answer sessions. Part two contains the public statements of American, Russian, and U.S. allied government officials and interest groups on the subject of SDI and includes a copy of the Anti-Ballistic Missile Treaty, 1972. The glossary and extensive index provide researchers quick reference.

Hess, Gary R. *The Unites States' Emergence as a Southeast Asian Power, 1940-1950.* New York: Columbia Univ. Press, 1987. 448pp. $45

The 1940s were important years in terms of emerging U.S. policy in Southeast Asia. In this book, Hess begins by examining Japanese-American rivalry in early 1940-41 as the United States sought to protect its interests in the region. He discusses international tensions over colonialism; the postwar treatment of Thailand; U.S. political, economic, and military commitment to the area and how, with the outbreak of the Korean war, the United States came to view Southeast Asia as a major source of its conflict with the U.S.S.R.

Iriye, Akira. *The Origins of the Second World War in Asia and the Pacific.* New York: Longman, 1987. 202pp. $12.95

As part of the *Origins of Modern War* series, Akira Iriye, a University of Chicago history professor, focuses on the years 1931 to 1941 in the Pacific region. His use of Japanese and Chinese primary source material and his knowledge of the domestic ramifications of international politics make this slim volume especially interesting. The questions that Iriye establishes as framework for this book are: first, how a war between two Asian countries evolved into a war between a single nation and a multinational coalition; and second, why did the Western powers on the one hand do nothing when Japan overran Manchuria in 1931, but then risk war with Japan by coming to China's assistance in 1941? To answer these questions, Professor Iriye details the series of miscalculations by Japan that led to her steady isolation in world affairs and the manner in which the United States and European powers dealt with Japan, i.e., choosing deterrence rather than appeasement and, consequently, also miscalculating.

Jackson, William. *Withdrawal from Empire: A Military View*. New York: St. Martin's Press, 1986. 285pp. $29.95

This book gives a detailed account of Britain's orderly retreat from empire after World War II. Although mainly concerned with military campaigns, political and economic factors are also examined. Jackson recounts the creation of the British Empire—its "rags to riches" story—and its eventual transition into a commonwealth, and suggests that technological trends since 1971 have impacted upon British strategic thinking and military policy.

Jennings, Francis. *Empire of Fortune*. New York: Norton, 1988. 520pp. $27.50

This book focuses on the French and Indian War, a war that long has been viewed in romantic terms that pit *good* (England) against *evil* (France). Francis Jennings rescues important political and military realities from long-held myths. He documents the cynical conspiracies of Thomas Penn, son of the famous Quaker, and "proves" that Penn's greed was directly responsible for bloody conflicts. Jennings has gone deeply into Quaker records for evidence which has been largely ignored until now. *Empire of Fortune* reveals truths about war and politics that have relevancy for today.

Kitson, Frank. *Warfare as a Whole*. Boston: Faber and Faber, 1987. 186pp. $12.95

In his introduction, General Sir Frank Kitson explains his theory that warfare is a continuum of various types of warfare from limited to all-out nuclear exchange and, thus, a "whole." This highly readable book is divided into current and projected British Army commitments and addresses how best to meet those commitments in light of the changes nuclear weapons have forced on the ways in which wars are and will be fought. Conventional forces will no longer be used to win wars but instead to gain time for negotiation; also, each NATO ally may have a different time requirement. As a retired military officer speaking out on readiness and joint operations, General Kitson has generated some controversy. However, his ideas on the nature of future warfare and on NATO are valuable to a wide audience.

Lens, Sidney. *Permanent War: The Militarization of America*. New York: Schocken Books, 1987. 252pp. $18.95

Permanent war is defined not as war that is unending, but rather as one fought daily, with no victors, in the form of either open battle fighting (army, navy, air force) or by subversion, dirty tricks, assassination, etc. Lens, recently deceased, contended that Government agencies, particularly the FBI and CIA, instead of protecting our national security, secretly operate a second government under the direction of misguided and zealous individuals who equate the words "national security" with privileged

immunity. Also analyzed is how U.S. policy oftentimes undermines the struggle for peace and democracy in various regions of the world and how our system of separation of powers is failing to check internal abuses.

MacDonald, Callum A. *Korea, the War before Vietnam*. New York: Free Press, 1986. 330pp. $24.95

The Korean war lasted for 37 months. Although limited, it was a popular war, one of opportunity, and symbolized U.S. determination to fight communism. MacDonald carefully describes American involvement in the conflict and discusses the invasion and near-total occupation of the South, military uncertainties, MacArthur's illusion of total victory, our willingness to accept stalemate, the POW issue, and the political future of Korea. The book is divided into two sections: one dealing with politics and strategy; the other with military experiences, frustrations, and bureaucratic rivalry.

McCutchan, Philip. *The Convoy Commodore*. New York: St. Martin's Press, 1987. 186pp. $12.95

Philip McCutchan, who served in the British Navy in World War II, has written more than 60 adventure novels, many of which have a naval setting. With *The Convoy Commodore* he begins a new naval series featuring Commodore Mason Kemp, RNR, formerly of the Australia run and now commanding convoys in the submarine-infested sea-lanes of the North Atlantic. In his first run, taking a convoy of precious ships in ballast back to Halifax, he encounters the "former naval person" on his way to a historic meeting with a former Assistant Secretary of the Navy. With two wolf packs between him and Halifax and his escorts stripped from him, Kemp must decide how to both protect his convoy and decoy for the *Prince of Wales* task force. McCutchan accompanies Kemp's convoy with a wonderful range of nautical characters—brave merchant skippers, a drunken purser, overage gunners called to service, and an amorous nurse. McCutchan writes a first-rate airplane novel. Buy it and save it for a long transcontinental flight. It is guaranteed to be a whole lot more fun than the in-flight movie!

Preston, Anthony, ed. *History of the Royal Navy in the 20th Century*. Novato, Calif.: Presidio Press, 1987. 224pp. $50

Abundantly illustrated with paintings, photographs, and maps, *History of the Royal Navy* surveys the British naval landscape from the Edwardian navy to the Falklands war and into the future. Assisting the editor are David Lyon, a specialist in ship design and naval ordinance, dealing, in particular, with the Edwardian navy; Philip Ammis, a world authority on British naval uniforms, swords, and decorations; Hugh Lyon, an expert on British naval shipbuilders and the technical history of the Royal Navy, 19th and 20th

centuries; Collin Wood, a specialist in technical history and particularly the Royal Navy in both World Wars; and naval authors Desmond Wettern and Anthony Watts, formerly of the *Daily Telegraph* and the *Navy International* respectively.

Roberts, David. *The Ba'th and the Creation of Modern Syria.* New York: St. Martin's Press, 1987. 182pp. $35

The main objective of this book is to provide a detailed analysis of, and introduction to, Ba'thism based on primary sources (Ba'th party documentation and basic historical works), and the author's personal experiences. Roberts discusses the origins, evolution, and structure of the Ba'th; its ideology as a crucial element of Syrian history; international conflicts, coups, and the rise of such figures as Gamal Abdel Nassar in 1958 and Hafiz al-Asad in 1970; the effects of land reform, education, and social change on the work force and the economy; and concludes with a look toward the future of Syria and Ba'thism in the Arab world.

Schoultz, Lars. *National Security and United States Policy toward Latin America.* Princeton: Princeton Univ. Press, 1987. 377pp. $42.50

In studying the strategic importance of Latin America to the United States, Schoultz has determined that the two major concerns of American policymakers are the causes and the consequences of instability in this area. Using both the public record and personal interviews, he elaborates on how different perceptions of these factors have shaped American foreign policy since World War II. Issues such as poverty, communism, strategic raw materials, U.S. military bases and local support, sea lines of communication, Soviet military presence, and the global balance of power are discussed in detail. The author theorizes that a new outlook is developing toward Latin America which is no longer based on cold war politics, but instead focused on the struggle against poverty and injustice.

Sleeper, Raymond S., ed. *Mesmerized by the Bear: The Soviet Strategy of Deception.* New York: Dodd, Mead, 1987. 384pp. $22.95

There is no doubt as to this book's point of view. The map on the inside cover of "Soviet Global Power Projections," the introduction by Congressman Jack Kemp, and the notable names on the roster of contributors, all indicate that the reader will find only strong support for the editor's political philosophy. Sleeper feels the West will always fall prey to Soviet deception in its search for détente, peaceful coexistence, or arms control as long as: the media believes every new Soviet leader is really a "closet liberal"; and, the public naively hopes for peace but fails to understand the Soviet concept of peace (*mir*).

Starr, Richard F., ed. *The 1987 Yearbook on International Communist Affairs.* Stanford, Calif.: Hoover Institution Press, 1987. 640pp. $49.95

This *Yearbook* (the twenty-first consecutive publication) offers data on the organization, authorities, and international contacts of Communist parties and Marxist-Leninist movements throughout the world during the calendar year 1986. Information has been derived primarily from published sources, including newspapers and journals, as well as from radio transmissions monitored by the U.S. Foreign Broadcast Information Service. Journalists, policymakers, scholars, and business firms should find this volume a useful reference source.

Summers, Harry G., Jr. *Vietnam War Almanac.* New York: Facts on File Publications, 1985. 416pp. $12.95

In *Vietnam War Almanac*, Harry Summers provides a valuable reference tool for anyone studying the Vietnam war. Organized into three parts, the first supplies the setting for our war in Vietnam. It is a mix of Indochinese history, geography, and culture. Part two chronicles the political and military events, from 1959 through 1975, relating to the Vietnam war. These events include unit arrivals and departures, major battles, U.S. political and social happenings, changes in political and military leadership, and more. The third part is in the nature of an encyclopedia with over 300 pages of definitions; descriptions of personalities, weapons equipment, military jargon; and political/strategic issues. A 12-page bibliography of selected readings reflects the pros and cons of U.S. involvement.

Thomas, Hugh. *Armed Truce: The Beginnings of the Cold War, 1945-1946.* New York: Atheneum, 1987. 668pp. $27.50

Armed Truce examines the causes of the cold war and documents its complex beginnings at the dawn of the nuclear age—a political environment shaped by such notable figures as Stalin, Molotov, Churchill, Roosevelt, de Gaulle, Franco, and Mackenzie King. The book opens with a description of postwar Russia seeking territorial expansion and then focuses on the West. Hugh Thomas not only explores the tension between opposing sides in the cold war, but also the postwar unease between England and the United States when England was a fading power and the United States was on the rise. *Armed Truce* illuminates the history of a past generation.

Waller, Douglas C. et al. *The Strategic Defense Initiative: Progress and Challenges. A Guide to Issues and References.* Claremont, Calif.: Regina Books, 1987. 172pp. $18.95

A critical survey drawn from two congressional studies prepared by the authors for Senators William Proxmire, J. Bennett Williams, and Lawton Chiles during 1986 and 1987, information for this study came not from SDI critics, but from more than 60 top scientists, engineers, managers, and

experts deeply involved with, and supportive of, SDI research. It has been supplemented with a discussion of SDI's relationship to arms control, the Soviet Union's antagonism to SDI, and the politics of SDI funding. The text is amplified by a dozen illustrations, charts, and tables, and an expanded reference chapter contains nearly 500 citations to the SDI program and related issues.

Whitehurst, Clinton H., Jr. *The U.S. Shipbuilding Industry*. Annapolis, Md.: Naval Institute Press, 1986. 282pp. $27.95

Although written for economists, Clinton Whitehurst's *The U.S. Shipbuilding Industry* is of importance to all who are concerned for the future capability of the Navy. While glamour weapons such as the Aegis and Tomahawk capture our attention, ships must carry them to the fight. These ships must not only be built, they must also be repaired, overhauled, and modernized throughout their long lifetimes. This must be done in shipyards—a basic heavy industry which, as Whitehurst shows, has been in serious decline during this century. Using an impressive mass of economic and industrial data, Whitehead paints a bleak picture of the likely ability of this industry to support a growing and aging Navy in the future.

Wood, Michael. *In Search of the Dark Ages*. New York: Facts on File Publications, 1987. 224pp. $22.95

In Search of the Dark Ages is not a blueprint for the future but a spin-off of the BBC-TV series *In Search of. . . .* Readable and pitched at the PBS audience, the book uses recent historical, textual, and archaeological research to illuminate formerly dark corners in Britain's history from Boadicea ("Relished by the learned as Boudicaa. . . ") to William the Conqueror.

Ziemke, Earl F. and Baner, Magna E. *Moscow to Stalingrad: Decision in the East*. Washington: U.S. Govt. Print. Off., 1987. 558pp. $24 (GPO S/N 008-029-00140-3)

This volume's extensive and comprehensive introduction details the strategic preparations of both sides on the eve of the German attack. The narrative then moves to the Russian counteroffensive at Moscow in December and concentrates on the January-October 1942 period—the months of decision in the East. After two summers and a winter in the Soviet Union, the German Army was put on the strategic defensive. *Moscow to Stalingrad* makes use of voluminous German and Soviet sources; it also notes that the new information from Russian sources reflects Soviet doctrine and policy and, thus, is limited in its objectivity. The book's 44 detailed maps provide a vivid representation of each operation to enhance the reader's understanding of the events on the Eastern Front.