NAVAL WAR COLLEGE REVIEW

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REAR ADMIRAL RONALD FRANK MARRYOTT

Rear Admiral Marryott is a native of Prospect Park, Pennsylvania. Prior to entering the United States Naval Academy in 1953, he attended Wyoming Seminary in Kingston, Pennsylvania. He was designated a Naval Aviator in May 1959 and holds a master's degree in International Relations and Organization from American University.

Rear Admiral Marryott's first tour of operational duty was with Patrol Squadron FIVE where he participated in deployed operations to the North Atlantic and Mediterranean. In 1964, he served on the faculty of the Naval Academy where he taught courses in Naval History, History of US Foreign Policy, US Government and Politics, and International Relations. In January 1967, Rear Admiral Marryott reported to Patrol Squadron FORTY-SIX where he completed deployments to the Northern and Western Pacific. Following a course of instruction at the Armed Forces Staff College in Norfolk, he served as Special Support Plans Officer in the Strategy, Plans, and Policy Division (OP-60) of the Office of the Chief of Naval Operations.

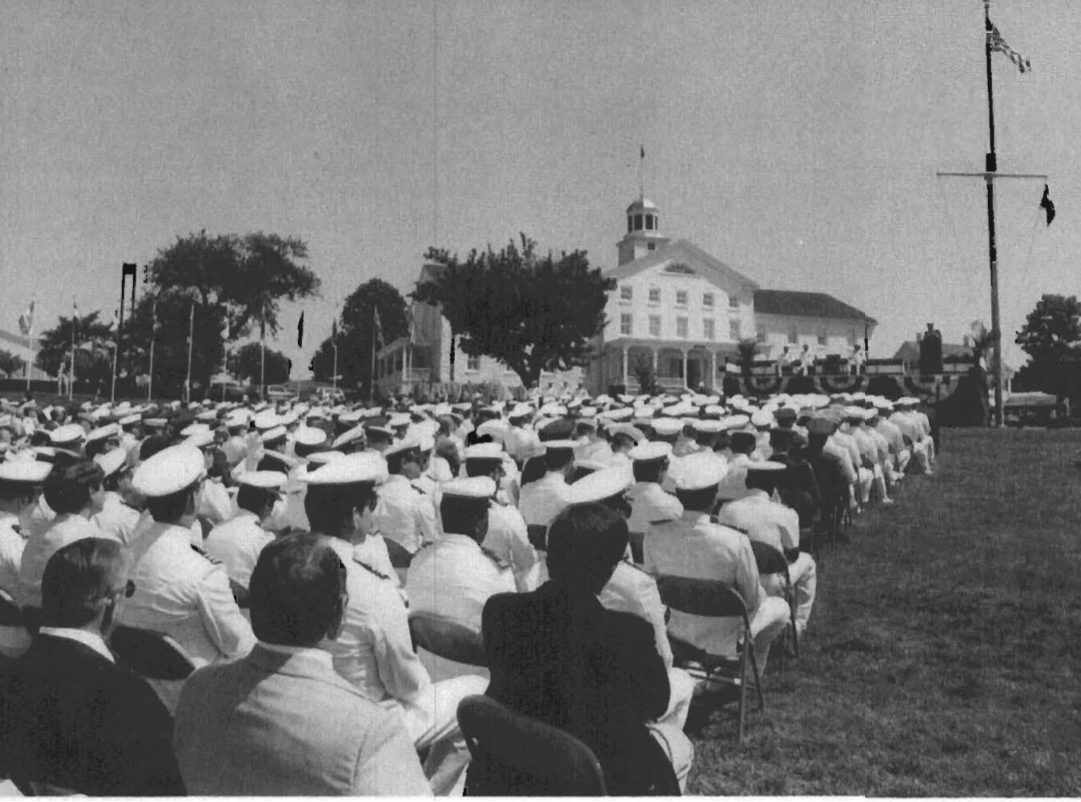
In February 1972, Rear Admiral Marryott reported to Patrol Squadron NINE as Executive Officer and assumed command of the Squadron in March 1973. He then returned to the Washington, DC area where he served as the Primary Security Assistance and Sales Action Officer for the Far East Region, Bureau of Politico-Military Affairs, in the Department of State. In 1976, Rear Admiral Marryott was assigned as Executive Secretary to the Chief of Naval Operations for Joint Chiefs of Staff matters (OP-06C). His next tour of duty was at the National War College followed by command of the Moffett Field Naval Air Station in September 1979. Selected for Rear Admiral in February 1981, he reported as Commander, Iceland Defense Force, in August 1981. In July 1983, he reported for duty as the Director, Strategy, Plans and Policy Division (OP-60); and in August 1985, he assumed the Presidency of the Naval War College.

President's Notes

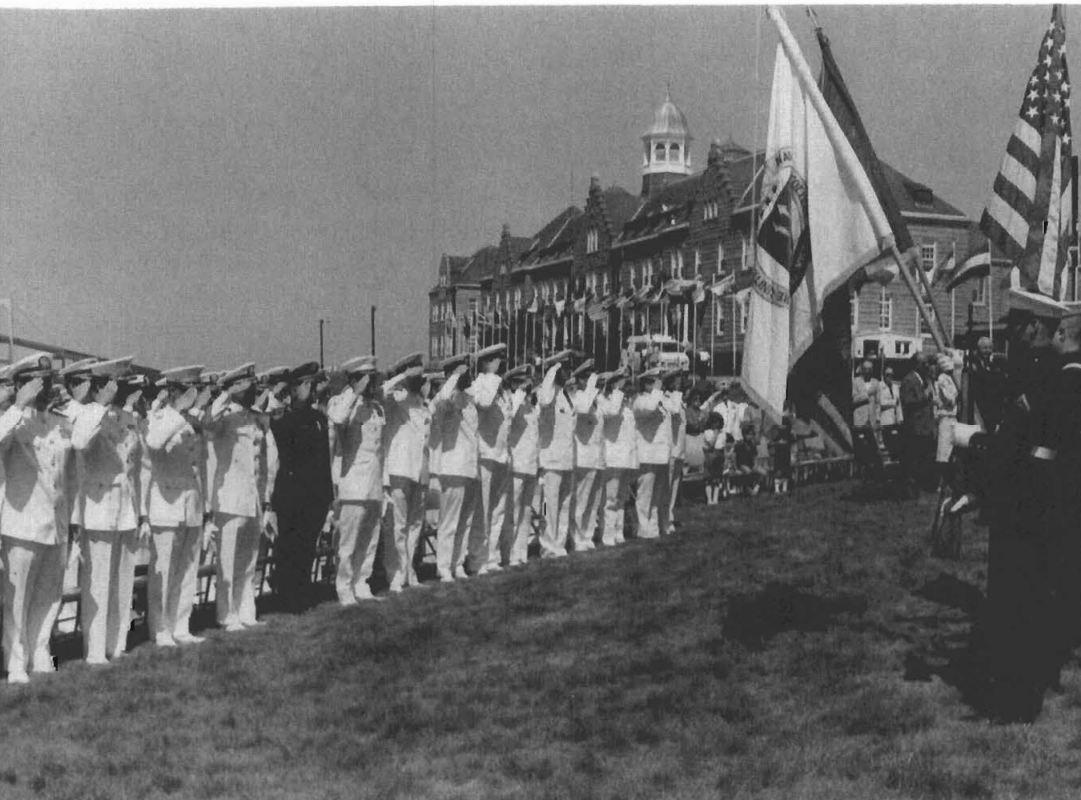
I am pleased to have this opportunity to share with you my great enthusiasm for being here in Newport at the Naval War College. My predecessor successfully shepherded the various activities here on campus to the extent that the college enjoys its rightful place at the center of a renaissance in strategic maritime thought. It is my intention to continue applying our best academic efforts to improve the operational readiness of the fleet. Our common challenge, then, is to continue dedicating the impressive intellectual and physical resources of this institution to this noble end. At the same time, we will rededicate ourselves to meeting the needs and aspirations of our students and to fostering continued interest in and discussion of the maritime issues of our time.

These are inspiring times, the more so when one remembers the earlier efforts of such men as Ernest King, Chester Nimitz, Raymond Spruance, and Kelly Turner, who formulated and refined strategy and concepts at the college. That is precisely what is going on in Newport now, and that is as it should be. I am delighted to join a team which has such vital contributions to make to the future security of the nation.

R.F. MARRYOTT
Rear Admiral, US Navy
President, Naval War College



Naval War College Graduation on Dewey Field (1985)



Maritime Strategy and Nato Deterrence

F.J. West, Jr.

The 1970s was a period of malaise and turmoil for US national security interests and organizations. For the US Navy the period was no exception. At the beginning of the decade, Navy force planning stressed ASW and convoy protection in the context of a Nato war, and procurement considerations such as the Sea Control Ship were hotly debated. Considerable respect was given publicly to Soviet naval power, including statements that the Soviets could have defeated the Sixth Fleet during the 1973 Middle East War, that the US Navy had less than a 50 percent chance of prevailing in a major US-Soviet war, and that a sea line of communication (SLOC) to our allies and geopolitical friends (i.e., the PRC) across the Western Pacific might not be maintained in a major conflict. While some of these assessments may have been for public consumption in order to influence budgets, they did reflect a defensive and pessimistic tone.

Similar resonances could be heard in the other services, while in the Office of the Secretary of Defense in 1977 an effort was made to codify the self-perceptions of reduced capabilities by assuming a reduction in foreign policy commitments; e.g., US forces would not have to transit the Norwegian Sea to reinforce Norway. In the resultant furor over capabilities versus commitments, the Department of the Navy produced its own version of naval missions and capabilities, called Sea Plan 2000, asserting that a Nato war would actually be global in nature—due to the worldwide interests and alliances of both superpowers—and that US naval forces should, where prudent, attack and not sit back on the defense. A goal of a 600-ship Navy was suggested. Special emphasis was given to attack submarines, which were designed for the offense; to the introduction of phased-array radar AAW cruisers into fifteen carrier battle groups; and to enhanced electronic warfare.

Working with the fleet commanders in chief and testing the development and employment concept through repeated wargaming at the Naval War College, two successive CNOs—Admirals Thomas Hayward and James Watkins—steadily developed an overall concept for the wartime employment of naval forces. The plan was a conceptual strategy for maritime forces;

Mr. West has served as Dean of the Center for Advanced Research at the Naval War College, as the Assistant Secretary of Defense for International Security Affairs, and is currently associated with The Hudson Institute.

Table
Maritime Strategy Concepts

Numbered listing indicates a Warfighting Concept and, where applicable, a related Deterrence Concept follows.

1. *Warfighting Concept:* War termination without use of nuclear weapons.[1]
Deterrence Concept: "Aggressiveness on the part of our ships is the greatest deterrent we can have. And the Soviets really understand that."[2]

2. *Warfighting Concept:* Nonnuclear option to put at risk Soviet nuclear force.[3]

3. *Warfighting Concept:* Three flanks of the homeland are every bit as important to the Soviet Union as Central Europe.[4]
Deterrence Concept: "We simulate running strikes into the Crimea. I would not preclude an opportunity to go in and clobber the Soviets at the right time and the right place . . . . I think it is unlikely [on Northern Flank] at a very early stage."[5]

4. *Warfighting Concept:* Our operations are sequential in a global war strategy.[6]
Deterrence Concept: " . . . if the NATO Treaty means anything, it means we have to protect and to hold Norway. The minimum reinforcement plans require both the Marines and the ACE mobile force to move by sea. They all have to go by ship, to Norway, after the conflict breaks out. If we allow the Norwegian Sea to be controlled by the Soviet Union, Norway is untenable."[7]

5. *Warfighting Concept:* "If we are swift enough, we would move rapidly into an attack on Alekseyevka."[8]
Deterrence Concept: " . . . we cannot disavow the capability to hit [with tactical air] their forces that are threatening our forces . . . . "[9]

6. *Warfighting Concept:* "Very carefully planned and coordinated rollback operation with heavy SSN combat in the upper Norwegian Sea."[10]

7. *Warfighting Concept:* "We have to know how effective the SSN surge would be against the Soviet bastion force around the SSBNs. It is very critical to force them back up in there."[11]

8. *Warfighting Concept:* " . . . sequential rollback of the Soviet defenses."[12]

9. *Warfighting Concept:* "War is inherently unpredictable . . . so nullify the [Soviet] submarine force in the Norwegian Sea . . . a tough sea . . . may take a week, a month or three months."[13]

10. *Warfighting Concept:* "Seizing the initiatives is essential. We have to move up north of the GIUK Gap. We have to control the Norwegian Sea and force them back into the defensive farther north, under the ice, to use their attack subs to protect their nuclear missile submarines, to use their attack subs to protect the Kola and Murmansk coasts, and similarly their Pacific coast. If we try to draw a 'cordon sanitaire' and declare we are not going to go above the GIUK Gap, . . . then they have the capability to use their attack subs offensively against our SLOCs."[14]

11. *Warfighting Concept:* "Our submarines have to go and nullify the Soviet submarine force before we can send any surface ships, certainly before we send the Marines up there in amphibious craft . . . we cannot control the Norwegian Sea if we cannot operate carriers there. In order to put forces into that area, we have to provide air support for them . . . in the subsequent phases of the operations."[15]

it did not give tactical rudder orders to the fleet and unified CinCs, who are responsible for the development and execution of operational war plans. Instead the maritime strategy provided the policy parameters for operations, relating campaign options and employment choice risks and realities on the one hand and strategic principles and national goals on the other. When Secretary of the Navy John Lehman began speaking publicly about the forward employment of US naval forces—to place Soviet forces on the defensive and to protect distant US allies—he was drawing upon an empirical body of doctrinal concepts.

What is the Maritime Strategy?

The maritime strategy "is the Navy's current determination as to the best overall conventional Maritime Strategy for global war today."[16] The principles of the strategy set forth here are excerpted mainly from the informative SecNav/CNO testimony to the Senate Armed Services Committee on 14 March 1984. They are summarized in the accompanying Table. It must be stressed they are general strategic guidelines and it is the CinCs who design the campaign plans. The maritime strategy provides a strategic framework by establishing general policy parameters that are useful guides to operational thinking.

Warfighting Aspects. As Dr. Robert Wood of the Naval War College has stated, "Any deterrence strategy that does not consider how the war will be fought and terminated is a hollow shell."[17] The maritime strategy is concerned with the actual employment of naval forces capabilities; that is, with consideration of how a major US-Soviet war would be fought. The strategy does not address the employment of nuclear weapons, but employs conventional forces and campaigns to safeguard Western interests and to secure leverage for cease-fire negotiations.[18] Its premise is to plan for a *protracted* conventional conflict.

The strategy takes seriously Dr. Henry Kissinger's observations that it is foolish to base the security of the West upon the threat of mutual suicide.[19] The US Navy is confident that, with the coordination of the other US services and allies, the wartime naval missions of the West can be accomplished, the offensive can be seized and Soviet naval power can be gradually destroyed, enabling Western military assets to be deployed across oceans around the globe. These principles have been stated repeatedly by naval officials and similar statements have been contained for the past several years in the OSD Posture Statements, reflecting a growing consensus about the wartime employment of conventional naval power and how confidence in those capabilities reinforces the stability of deterrence.

From the Table, five principles of combat emerge.

First, nuclear weapons are not used.

Second, sequential operations in a protracted war are planned. There are no fixed time lines or fixed plans for execution in a rote manner.

Third, offensive sea control is stressed repeatedly because the best defense is a good offense. The United States presumably conserves naval resources by attacking rather than by defending a "Maginot Line" like the GIUK Gap. Rollback ASW campaigns in the Pacific and the Norwegian Sea are proposed to prevent Soviet submarine interdiction of the SLOCs. Marines contribute, especially on the northern flank, to prevent the forward basing of Soviet aircraft to attack the SLOC. Soviet Naval Aviation bases, where vulnerable, will be hit. Offensive orientation seeks to pin down, bottle up, or destroy Soviet forces, conceding no sanctuaries.

Fourth, war termination leverage is sought. There is the option of changing the nuclear balance by nonnuclear attacks. The Soviet Navy will be destroyed; there will be few or no ocean areas the Soviets can claim to control during cease-fire negotiations. It will be a US option to grant any sector or no sector of ocean to the Soviets. After a cease-fire or during negotiations, the United States can use all the seas for commerce, reinforcement, SSBN patrols and the application of power.

Fifth, by dominating the oceans the strategy emphasizes the eventual application of the effects of US mobilization (e.g., $1 trillion a year), and of non-European allied mobilization (e.g., another $500 billion a year).

In sum, the warfighting principles of the strategy are:

- nonnuclear,
- protracted coalition war with sequential and rollback operations,
- offensive pressure to protect SLOCs,
- war termination leverage, and
- control of the seas to apply effects of a massive Western mobilization.

Only two of the five principles relate to sea control—the maritime strategy in its essence is not maritime; it is a conventional war strategy.

Deterrence Aspects. In large measure, US naval planning is based on the logic of how to fight if deterrence breaks down. In the event of actual conflict, as former SacLant Admiral Harry Train, USN (Ret.), has expressed it, there are only a limited number of options.[20] First, it is possible that the Soviets would be stopped and would then quickly accept a cease-fire on status quo ante terms in order to avoid possible escalation. This is unlikely. Second, the Allies could be quickly pushed back and accept a cease-fire on Soviet terms. This is also unlikely. Third, the Allies, losing ground, could initiate a full nuclear exchange, killing hundreds of millions of people. Fourth, the Allies, losing ground, conld employ nuclear weapons in a "limited" way and the Soviets would respond in kind. Tens of millions would be killed and either the Allies would accept a cease-fire on negotiated terms or continue the war without

further resort to nuclear weapons. Fifth, the Allies, despite initial setbacks and loss of ground, could continue a conventional war until able to negotiate an acceptable termination of hostilities.

Because the first two are unlikely and the next two are unacceptable, naval planning proceeds from the fifth case. It is based on two assumptions. The first is that officers must plan seriously for actual conflict involving current capabilities. This is in marked contrast to the long prevailing attitude that, since the current allied forces are unable to provide a successful defense, the goal of planners is to list the resource requirements for a successful defense ten years hence and not to think through the course of a conventional war if those requirements are not fulfilled. The second assumption is that history supports real capabilities rather than deterrent theories. Deterrence has failed time and again when an aggressor should have remained deterred (e.g., Japan initiating war against the United States or Argentina seizing the Falklands).

Nato planning derives from a different wellspring. Having fought a terribly destructive war forty years ago, the West Europeans are determined not to repeat the experience. Nuclear weapons, because they risk the mutual suicide of nations, have been perceived as the guarantor of nonwar. Therefore, many West Europeans tend to take warfighting seriously only as a means legitimizing the use of nuclear weapons. The role of the hundreds of thousands of Allied troops in West Germany reeling under the impact of Soviet aggression is to engage the pitched emotions of the 16 Nato nations, making credible any desperate Western resort to nuclear war. Therefore, the "deterrent-only" theory views any serious planning for conventional defense as weakening deterrence because it weakens the supposed automatic resort to nuclear weapons.

The "deterrent-only" theory is based on the credible possibility—in the event of major conflict—of catastrophic nuclear destruction of Europe and, as well, of the American and Soviet homelands. This means there can be no clear firebreaks between battlefield, theater and strategic levels of nuclear war. Why? Because to many West Europeans, firebreaks provide a means for the destruction of Europe alone, while the United States and the Soviet Union remain intact—this does not sufficiently enhance the deterrence of war in Europe. The SS-20s in the western Soviet Union targeted against Western Europe provide one link between the destruction of Europe and that of the superpowers, while the Pershing II and US cruise missiles in Western Europe targeted against the SS-20s provide another. Clearly, the West's nuclear weapons are not seen as redressing Western shortcomings in conventional forces.

Under this theory Nato conventional forces must at least be strong enough to put up a stout defense, to prevent any quick fait accompli by a Warsaw Pact blitzkrieg. Enough time and treasure must be expended that the peoples and

policymakers of Western Europe and the United States fully appreciate that the war is a struggle to the death. Once the West is deeply and emotionally committed, then resort to nuclear weapons is credible.[21]

Critics argue that this theory of total, even suicidal, commitment is incredible, not least because those advocating the theory are doing so in order to avoid very modest peacetime increases in conventional forces. If the democracies of the West are unwilling to support even five percent GNP for defense in peacetime, critics have observed, they will not choose the final sacrifice in wartime. True, they admit, the ferocity with which the Western democracies fought in two world wars, despite having voted against defense appropriations even on the eves of both conflicts, suggests that the level of sacrifice cannot be predicted in advance. But, they point out, the objective in previous wars was to build strength in order to win and preserve or restore the societies of the West, while the deterrent-only theory for a future war is to blow up the societies.

In brief, reliance on nuclear weapons has led some to view as unacceptable any defense planning which lessens the likelihood of the nuclear apocalypse, because that is perceived as the *essential* element for deterrence. In contrast, by assuming a protracted conflict, the maritime strategy rejects the assumption of the early resort to nuclear war. Thus it is a threat to the theory of "deterrence only." Those wedded to the deterrent theory refuse to plan for conventional warfighting because such a plan might include initial setbacks or destruction and maneuver within the Federal Republic of Germany (FRG); such plans are politically unacceptable in most West European nations. Therefore, the current Nato strategy is principally abour the deterrence of war.

How do the five principles of maritime warfighting relate to deterrence? Deterrence encompasses, inter alia, these following concepts:

- Forward presence—the aggressor sees he will have to fight Americans.
- Reassurance of allies—by forward presence, by the nuclear umbrella, by contacts and rhetoric, and by credible plans matched to capabilities and to the seriousness of the threat.
- Direct Conventional Defense—the standard interpretation is to add bulk to the Cenrral Front to defend against a blirzkrieg. All too common West European wisdom is that this defense cannot be done given Soviet strength, and so should not be done, because it would undercut the nuclear automaticity which is the true deterrent of any war. The common American view is that direct defense has less than an even chance today, but could be successful if all the allies contribute some real growth per year to their defense budgets for ten years. Unfortunately, the present Warsaw Pact modernization rate is exceeding the modernization efforts of the Nato allies.

The maritime strategy contributes to direct defense by insuring continuous reinforcement across the SLOC for protracted war. Thus the Soviets are

faced with two tasks: break the center; and seize the flanks and choke off reinforcements. If the Soviets cannot choke off allied reinforcements, they face a long war against an economically superior opponent. With the US maritime principles of rollback pressure on all the Soviet flanks, the probability of the reinforcements—and so of a protracted war—is high.

- Uncertainty about the terms and costs of the war—this refers to efforts (sometimes called retaliation, horizontal escalation, analogous response, etc.) which indicate to a potential aggressor that a war will *not* be fought on his terms or on his choice of territory. For instance, the public voicing of possible Nato planning options to seize East German (GDR) territory or create an uprising in Eastern Europe would add to Soviet uncertainty about the terms of a war.[22] This assumes the GDR is vulnerable to a Nato counteroffensive—such action would gain territory for Nato bargaining purposes, encourage the defection of Warsaw Pact armies and lead to the disintegration of Soviet control in Eastern Europe.[23]

The maritime strategy adds to Soviet uncertainty by declaring that, regardless of how well the Soviets are doing on the Central Front, the US naval policy is to:

- apply pressure globally,
- possibly change the nuclear balance,
- prolong the war,
- apply to Europe the effects of US mobilization ($1 trillion),
- assist in the mobilization of Japan and other allies ($500 billion),
- possibly transport hi-tech military items to the PRC,
- apply pressure on the Soviet flanks,
- attack Soviet bases,
- destroy the Soviet Navy, and
- prevent the Soviet use of any ocean for any reason.

Added together, these capabilities point to a conflict of different dimensions than a blitzkrieg on the Central Front. In deterrent terms, this increases Soviet uncertainty and complicates Soviet planning.

In sum, the maritime strategy adds to deterrence through:

Direct Defense, by making it clear that the Soviets must achieve two tasks: break the center, and seize the flanks to choke down the massive reinforcements which will be coming across the SLOC. The maritime strategy makes seizing the flanks and squeezing the SLOC very difficult.

Increasing Uncertainty about the terms of the war. Whatever else the war will be, it will *not* be limited in time to one month or in focus to the Central Front theater. If the Soviets attack, they must expect a world war of protracted (if not nuclear) dimensions. Because the blitzkrieg cannot cap the US defense budget or prevent the transoceanic movement of the US assets eventually produced, in war the Soviets would face a severe long-term problem on a global scale.[24]

Critiques

If the maritime strategy seeks to enhance deterrence, why is it attacked so stridently and persistently by several critics? Three reasons are apparent. First, the Navy has not explained its concepts. It is Pentagon style to give briefings, because that is the only way to get the ear of busy officials. But briefings are elliptical and there has been no rigorous, comprehensive analysis setting forth the maritime strategy. Two CNOs—Hayward and Watkins—have been personally responsible for the strategy and have done so with a handful of assistants. Routine staff support has been thin. Most naval officers are, and should be, first and foremost operators. Some tend to be impatient with concepts, viewing them as irrelevant or academic. In the maritime strategy, the Navy had a good idea which could add a dimension —protracted war—to deterrence and to war plans. (Another contribution to deterrence has been the Army War College work on maneuver and campaign strategies, which, although possibly at variance with Nato quasi-linear defense, would seriously contest any Soviet blitzkrieg on the Central Front.) But whether the Navy will develop and refine the strategy it has announced remains to be seen. There are about ten articles written attacking the strategy for every one written to explain it. Many who champion the Nato deterrent strategy, are skeptical of the maritime strategy, while the central thesis of this article is that the maritime strategy actually contributes to Nato deterrence.

Second, critics and proponents alike mix and confuse warfighting and deterrent concepts. The maritime strategy was developed as a discrete set of warfighting concepts and, later, concepts about deterrence were added. To the extent that warfighting concepts are realistic (and perceived as realistic by the Soviets), they are also deterrent. They are not two separate branches of the same tree, but are more closely intertwined. Recently, the Navy has been developing an agenda for bilateral negotiations with allies, for crisis management, for signaling to the Soviets, and for dealing with the repertoire of concerns to policymakers in international security affairs. All of these are legitimate issues but when they are lumped together, there is confusion about which concepts apply if a US-Soviet conflict occurs. There is not a clear distinction between those theories that enhance deterrence of a major conflict and those that apply to managing crises.

Third, some critics have genuine disagreements with one or more of the essential principles of the maritime strategy and do not believe US naval power contributes to stability in proportion to the resources it receives.

The principles of the strategy address warfighting and articulate a set of means in a protracted conflict that are premised on avoiding massive nuclear destruction. The maritime strategy says that having a coherent plan for warfighting—as the Soviets do—strengthens deterrence. If war comes it still

might go nuclear, but if war comes and does not go nuclear, the maritime strategy seeks to contribute to a termination satisfactory to US interests.

Nato Europe prefers to observe that, since any war is unsatisfactory to Western interests, no realistic planning for conventional war can be done beyond a short forward defense because such plans would reduce the automatic resort to nuclear weapons and so might encourage the Warsaw Pact to use its superior conventional strength.

This is a serious dilemma. The US Navy, together with allied support, can prohably achieve its wartime tasks of insuring allied resupply worldwide and of delivering mobile firepower, while threatening to destroy all Soviet naval assets. In similar fashion, US and allied tactical air can probably destroy Soviet tactical air, and should, given that Nato invests twice as much in tacair systems. But these achievements do not offset the extraordinary Soviet investment in land, armored warfare.

On a GNP or per capita basis, Western Europe spends considerably less on defense than does the United States. By the standard, quantitative measures, the allied inputs are not equal to the conventional warfighting task, unless early setbacks and initial loss of territory are accepted as a real risk. Under Secretary of Defense Fred C. Ikle has identified this as a critical concern stating, "If we are serious about emphasizing conventional defense and avoiding 'first use' of nuclear weapons, we must be serious about the staying power of our conventional forces."[25]

The democracies of Western Europe appear to be willing to accept added risk rather than to increase peacetime spending. Their preferred solution is to rely upon an automatic linkage between Soviet conventional aggression and an allied nuclear response. Serious US Navy thinking and planning for protracted conventional conflict upsets the comfortable theory of automaticity—which may not prove to be very automatic if put to the test.

Another West European reservation is that US naval planning is too global/diffuse in scope and slow in response. Nato Europe links an attack upon one nation as an attack upon all. Therefore, many believe the onslaught of hostilities will spread quickly to the Central Front as the key battlefield in a ferocious and short (probably less than 30 days) war. In contrast, the US Navy is spread out in the North Atlantic, Norwegian Sea, Mediterranean and Western Pacific. The Central Front is not central to naval forces and naval forces are not central to the Central Front.

Also, while Nato land forces are tied to a political deterrent policy of forward defense along a thin line which permits little maneuver backward or forward, naval forces are freer to employ maneuver, testing the enemy before being committed far forward. The military logic for naval forces is to delay full-scale engagements until enemy capabilities have been probed, while Nato land forces do not have the luxury of delay or for large geographic maneuver. Conceivably, large-scale naval battles may not begin until weeks

after momentous land battles have been decided. Hence, those planners that believe the Central Front is the key, quite logically want to reduce resources for naval forces and insure that those naval forces procured be committed early-on in a way which supports the Central Front battle.

SLOC support for the Central Front is perceived by some as achievable with less investment in carrier battle groups. Carriers in turn are perceived as contributing less per dollar in allied tactical air than fixed air bases near the Central Front. Only if one views conflict with the Soviet Union as occurring on several fronts, on a scale and length comparable to the previous two world wars, does the mobility inherent in naval airpower make sense in a major conflict.

In 1984 the perception of allied tactical air superiority gave rise to proposals for its full utility against Soviet armor. Emerging Technologies (ETs) would, on a cost-effective basis, enable Nato to target, attrite and disrupt Soviet vehicular forces 100-300 miles in the rear through the use of precision-guided munitions (PGMs) launched primarily from tactical aircraft and secondarily by land-based intermediate-range missiles. The concept of Follow-On Forces Attack (FOFA) or "Deep Strike" has the added political benefit of placing some potential pressure on the Warsaw Pact (at least the GDR would not be a sanctuary) without appearing to make Nato, and especially the Federal Republic of Germany, look too offensive-minded in peacetime.

The trend in US tactical air forces is toward PGMs, and FOFA has been conceptually linked to the US Air Force.[26] It is doubtful whether serious planning should rely on the application of naval tactical air in or beyond the Central Front for the initial weeks of a major war. The Soviet submarine and air-to-surface missile threats, the demands of other regions and the sheer ocean distances naval forces must traverse all suggest that naval tactical air not be planned as a substitute to—although it should complement—land-based tactical air in the region of the world most densely populated by land-based air systems.

By virtue of its environment and its systems, US naval forces show marked differences in planning assumption when compared with Nato Central Front doctrine and the deterrence theory of automaticity. These differences can be papered over, but they are serious. US naval planners look to employ conventional systems, even if that means initial setbacks. They look at theaters around the globe, not at one battlefield. They envision a long struggle, perhaps punctuated by episodic cease-fires, and not a short war. They view deterrence as resting on the conventional capabilities to achieve policy objectives, not capabilities to achieve an emotional commitment and intensity of sacrifice to compel the initiation of nuclear war without calculation of the consequences.

Nato Europe has not yet recognized the seriousness or the extent of the evolution in US naval doctrine and strategic thought. Within American circles, there are reservations and suspicions about the naval doctrine. Critics

suspect naval motivations are for reasons of force structure justification, especially of large-deck carriers. (The cutting edge of naval strategy, however, begins with the attack submarine and ASW.) Others believe that the naval effort is misdirected strategy in terms of geopolitics and that these resources would be more useful if allocated to Europe to stop a Soviet blitzkrieg. This reallocation of forces presumes that the US Congress would vote to do even more for Western European nations (which are equally as wealthy per capita as the United States), who as a general rule are content to put forward half the effort of the United States on a per capita basis. It also presumes conflict will occur in the Central Front, and that other areas of Western Europe and the globe would benefit less from the mobile power of US naval forces. Because the strategic challenges to US interests have been increasing outside the Central Front, the argument for more US Central Front forces at the expense of more flexible forces is open to serious question.

The US naval focus has been on persuading all US armed services that the issue is not a force structure debate but rather the need to develop a conventional warfighting concept. This is because the initiation of nuclear war is not militarily sensible, especially when rhetorically cited as a reason why wealthy nations do not have to provide prudently for their common defense by conventional means.

Naval planning strained of the salt water, is a plan for a protracted, conventional conflict. Since democracies often do not sacrifice sufficiently for security during peacetime, the planning recognizes there may well be initial setbacks if war occurred. In its realism, it can strengthen deterrence. Given Soviet nuclear strength, the Western initiation of nuclear war, after a conventional setback, is becoming less credible. What is becoming more credible is the weakness of the Soviet economy and the enormous strength of the US economy and the economies of other allied or friendly nations. In a major conflict, regardless of how the first month of conventional war went in certain theaters, the Soviets would have to calculate the one-year, two-year, and three-year consequences of US economy with a $1 trillion annual defense budget with an additional $200 billion annually devoted to strategic defense.

With or without the Central Front, US naval planning has been based on analyses of how to fight conventionally. Because this involves a protracted war (meaning possible destruction in Europe) Nato Europe has not addressed the issue, preferring to cling to a deterrence-only theory. Yet naval planning can be explained as reinforcing, not reducing, deterrence. As the credibility of initiating nuclear war weakens, so the comparative strength of mobilization economies rises in the calculus of those who must make the decision to go to war. The effect of more than a trillion dollars per year in US conventional and nuclear forces would weigh very heavily on the decisionmakers in the Politburo when weighing the risks of major conflict. Lastly, US naval

planning is premised on a basic assumption: a military professional must have a concept and plan for how he is going to fight.

Then, what are the serious objections to the maritime strategy? There are four.

First, *that US naval losses by offensive sea control would be much higher than if the United States stayed south of the GIUK gap, stayed out of the Seas of Japan and of Okhotsk and, in general stayed defensive and let the war play out to a conclusion on the Central Front.*

This is a professional military judgment about net power. The available evidence suggests that the United States has the power to press forward and that losses on the SLOCs would be higher if defensive sea control were employed.

Second, *if the Soviet blitzkrieg destroys the Central Front, the war is terminated and over.*

Why? If we define blitzkrieg as an attempt to quickly destroy an opposing army by penetrating its front and driving into its rear, then there have been several successful blitzkriegs. If we place blitzkrieg within the context of successful "war termination," then the evidence about blitzkriegs is mixed. Hitler's blitzkrieg against Poland precipitated hostilities with England and France. Hitler's blitzkrieg against France did not end the war with England, and Hitler's blitzkrieg against Russia failed to put the Soviet Army out of the war.

How could the Soviets use a blitzkrieg attack along the inner-German border as a means both to start and terminate a war with Nato, including the United States? Such an attack would have to achieve two objectives—the defeat of Nato's forward deployed armies and the neutralization of allied (e.g., US, UK, Spain and Japan) ability to mobilize and continue to fight in force. It is difficult to imagine that the latter objective can be achieved by the Soviets without major operations on the flanks of Nato designed to change the geography of a US-Soviet SLOC war. If this is true, then the US Navy has considerable influence on how long a war would last.

The unstated assumption of a blitzkrieg leading to war termination must be that the United States would be deterred, by the Soviet threat of nuclear attack, from persisting in conventional attacks and full-scale mobilization. Hence, the Soviets win by forcing the United States to accept surrender terms by the threat of nuclear attacks. This point of view, if correct, would really undermine West European confidence and Nato cohesion because it is a double denial of US stated policy. First, it denies that we would initiate nuclear strikes rather than accept the loss of West German territory and second, that we would be deterred from retaking territory out of fear of Soviet nuclear strikes.

A successful blitzkrieg 4,000 miles from the United States does not solve a central Soviet dilemma: how to cap the US defense budget, prevent a shift in

the nuclear balance in favor of the United States and prevent the United States from applying massive reinforcement, sooner or later, across the SLOCs. The old adage applies: "if striking a king, strike to kill." How a blitzkrieg against the European Central Front would result in the de facto surrender of the United States is not clear. Most likely, the war would not be over; it would be just beginning.

Third, *if the Soviet blitzkrieg does not succeed, the Soviets will accept terms.*

This is not to say that SLOCs are not relevant to the essential battle, or to the deterrence of that battle. The logic here is that the Soviet General Staff would plan an attack only if quick victory were anticipated. Only increased Nato strength on the Central Front will lessen Soviet confidence in a quick victory, and therefore only increased Nato forces on the Central Front contribute to deterrence against the blitzkrieg.

This logic has three questionable assumptions. First, it requires more resources, especially West European, at a time when West European (and US) defense budgets show no real growth. Second, it denies that a US/allied capability to change the terms of the war (e.g., to a global war) strengthens deterrence. This denial is implicitly a denial of the nuclear deterrent, which also lessens Soviet confidence by threatening to change the terms of the war. Third, it denies that the Soviets must seize the flanks and choke off the US reinforcement through the Atlantic SLOCs, in addition to seizing the center. If an initial Soviet blitzkrieg is halted in the center and the war appears to be going favorably for Nato (i.e., little or no loss of territory), a Soviet decision to accept a cease-fire and negotiate is likely only if Soviet prospects for continued conflict look bleak. If initial defensive success on the Central Front is bought by Nato at the cost of losing Norway and the ability to sustain the SLOC, then a decision by the Soviets to avoid a protracted conflict via negotiations is not likely since, without the SLOC, Nato loses the advantages in a protracted war.

The maritime strategy complicates Soviet planning and confidence because the Soviets must seize the flanks as well as the center. Despite the pace or direction of the land battle in the center, as the fighting drags on allied tactical air begins to assert itself. (Confidence in allied tactical air is the critical assumption for endorsing FOFA or "Deep Strike.") With Nato controlling the seas and air, Soviet movement against the flanks would be difficult and probably would not have the characteristics or timing of a blitzkrieg. Hence, the strategy complicates the Soviet timetable for a quick victory and a quick cease-fire, because it says the war will be protracted, global and fought on terms chosen by Nato as well as those chosen by the Soviet Union.

Fourth, *if the Soviets can be stopped in their initial blitzkrieg, the war can be terminated because the allies will be willing to initiate nuclear war.*

This logic does not explain why the initiation of nuclear war by the allies is more credible after a conventional defense of weeks, rather than of days. The

incentive to escalate is the same in either case: conventional setbacks on the Central Front. The consequence of escalation—disaster—is not different in the two cases.

In summary, the maritime strategy seeks to enhance deterrence by indicating to the Soviets that aggression against the Central Front may encounter: successful direct defense; nuclear escalation; or a protracted conventional war with different terms added to the couflict (e.g., a shift in the nuclear balance, a SLOC to the PRC, the mobilized economies of Japan, Asia and other countries, pressure against the Soviet flanks, a long war in Europe and the eventual effects on the nuclear and conventional balances of a trillion dollar US defense budget). Given that the United States possesses a reasonable set of capabilities for the maritime strategy, it is not clear why we should deny ourselves the deterrent effects which that strategy offers.

The Navy is suggesting that a war between the superpowers and their allies could remain conventional. Regardless of the initial outcome on the Central Front, the Soviets would have to contend with the eventual application of the technological and industrial might of the United States. Unless the Soviets could persuade the United States to cap its defense budget, eventually the nuclear balance would favor the United States. Unless the Soviets could seize the flanks and approaches to Eurasia and choke the transit of allied material, eventually US naval superiority would result in the buildup ashore of a massive amount of Western military power. This concept of a protracted war is dismissed by some who believe, as did the Japanese in 1941, that the United States does not have the will to sustain such a war, or that the Soviets will initiate nuclear war if they are in danger of losing territories they seized in their initial conventional attack.

Others reject the possibility of protracted conventional war because to entertain the possibility would weaken a deterrent which they believe to rest upon the credible threat of Nato's initiation of nuclear war if losing territory in the conventional war. However, the credibility of this threat to commit mutual nuclear suicide has eroded. That credibility cannot be reinvigorated by refusing to examine the conduct and consequences of protracted conventional war.

The Navy and Marine Corps, however, do use resources which, Congress and world events permitting, could be dedicated to a further strengthening buildup of US forces in West Germany. Those resources would not in themselves yield confidence in Nato's initial defense. That defense would require renewed West European dedication and resource increases which are not forthcoming. It is generally accepted that the odds for successful Nato initial defense are decreasing because the West has chosen not to allocate the required resources. So the choice is not between confidence in a successful Nato initial defense and plans for a protracted

conflict. Neither is the choice between such plans and the nuclear deterrent; it is not suggested that the nuclear forces which provide the linkage to the nuclear deterrent be reduced.

The protracted war option increases deterrence because it adds to Soviet uncertainty. Even should the hypothetical major war not escalate to the nuclear level, the Soviet Union—no matter how successful its initial blitzkrieg in one theater or another—would have to reckon eventually with the full force of a mobilized America that has control of the seas and whose forces could be applied to any theater. As Germany and Japan learned, initial success in war against the United States is transitory. Knowing that US defense planners have thought through the course of a protracted conventional war, wargaming on a global scale year after year, complicates the calculus of Soviet planners and contributes to the deterrence of war.

Notes

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8. *Ibid.*, pp. 3870-3871.
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JCS Reform: A Defense of the Current System

Robert J. Murray

I have assumed the task of defending the status quo. It is a curmudgeon-like assignment, implying, I believe, that everything is all right as it is. Which it is not. I see the need for reform, but of a different kind than is presently being mooted in most organization studies. But, let me begin by considering what is good in the current Joint Chiefs of Staff system.

What *is* good in the current system? I think at least three things can be said in its favor. The first is history. The JCS system has taken us successfully through the most dangerous war in our national life, and has subsequently carried us safely through four decades of the postwar nuclear era without conflict between us and our most dangerous adversary, and without war in Europe. The Joint Chiefs of Staff system, under civilian authority, demonstrated in World War II that it can formulate and prosecute a winning military strategy, notwithstanding—indeed, perhaps helped by—disagreements among military leaders. Our military record of the past half century is not unblemished, but we should take note that, on the most crucial issues, the system has worked.

We have, for example, a strategy for the defense of Europe. It is a strategy that is part deterrence, part preparation for warfighting. It is a strategy fashioned in part from ideas and proposals arising in the Joint system, developed over a long period in conjunction with our allies. Similarly through the Joint system, plans for the employment of the Rapid Deployment Force in Third World areas have been created; and, most recently, work is underway—through war games involving the Joint Chiefs of Staff and all unified and specified commanders, and their respective staffs—to develop more cohesive strategic ideas for the integration and employment of forces worldwide in various contingencies. The Joint system is not perfect, but neither is it in gridlock.

Secondly, the present JCS system enables—"encourages" would be too strong a word—diverse military points of view to come forward. Some

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people think this a demerit, and in fact the Chiefs themselves work hard, perhaps too hard, to overcome disagreement; but, for my part, I count diversity a strength of the system, for it allows informed debate on major questions of strategy; whether or not, for example, to emphasize strategic bombing, or coalition defense of Europe, or maritime supremacy, or more or less dependence on nuclear weapons in strategy, and so forth. Unity of vision is important for executing policy, but for helping to establish policy, which is the first function of the Joint Chiefs of Staff, diversity of advice is preferable.

It is preferable, among other reasons, because public debate on large matters, such as national strategy, is needed to help assure public support for the armed forces and for commitments and actions entered into by the President. Thus, what is wanted in the first instance from the Joint Chiefs of Staff is a variety of sound ideas about how to defend the country. The political process can then debate and refine these ideas, helped by the interaction between military and civilian opinion, and then civilian authority can choose the best among them, or the best combination of them. By this process we achieve a reasonable consensus on national strategy. Not perfect agreement, for it is a process of continual debate and refinement. But it is a healthy process.

The third point in favor of the current JCS system is that it has the important advantage of fitting both the letter and the spirit of the Constitution. The Founding Fathers, as we all know, had a deep distrust of any system that vested control of political affairs—and decisions about the purpose, size, organization, and employment of the armed forces are political affairs—in the hands of any one person or institution. The Constitution, accordingly, distributes power widely, while placing most authority for defense policy with the Congress, the institution closest to the people.

These three points in favor of the present JCS system—that it has given good advice and direction to the armed forces in critical times on crucial issues; that it can produce constructive if sometimes diverse and argumentative ideas; and that it is in the mainstream of American political institutions—are important assets of the current system.

Deficiencies of the Current System

What, then, is wrong with the current JCS system? What are the charges levied against it? The principal charges are:

- that the Joint Chiefs of Staff are unable to give sound military advice on matters of strategy, of service roles and missions, or of resource allocation; and
- that the joint system, including the Joint Chiefs of Staff and the Unified Commanders, fails in the major mission of carrying out military operations successfully, as evidenced by military failures in Vietnam, Iran and Lebanon.

The first charge is made most forcefully by General David Jones, former Chairman, Joint Chiefs of Staff, and former Air Force Chief of Staff, and by General Edward Meyer, former Army Chief of Staff, both men of considerable experience and ability. They argue that service Chiefs are institutionally unable to divorce themselves from their individual service interests, that service rivalry over budget shares dominates military advice, and that rather than send issues in disagreement to the Secretary of Defense for decision, as would be required by law, the Chiefs make a great effort to reach agreement by compromising the quality and sharpness of their advice if necessary.

The second charge is made by, among others, Edward Luttwak in his recent book, *The Pentagon and the Art of War*. Luttwak asserts that the military leadership has lost the ability to prosecute war successfully, as was evidenced in Vietnam by an absence of strategy or coherent direction to the war effort, means unrelated to ends (as, for example, the excessive and inappropriate use of firepower), and mission assignments intended more to assure every service a share of the action than to prosecute the war successfully.

These charges are echoed in a recent Georgetown study of Defense organization. The members of the study group comprise many of the most experienced insiders, both military and civilian, in the defense business, Jones and Meyer among them. The study group's work was endorsed, as worthy of close consideration by citizens, by every living former Secretary of Defense save one. These are grave charges by seasoned people and must be seriously regarded.

The Proposed Remedies

The remedies proposed for reforming the system run in similar directions: strengthen the role of the Chairman, JCS, relative to the service Chiefs, and the role of the unified commanders relative to the service component commanders; place the Joint Staff under the authority of the Chairman, JCS, rather than under the JCS as a corporate body, and build a class of joint service officers who will rise above service parochialism; and give to the Chairman, JCS, authority for preparing budgets and programs reflecting his own priorities and those of the unified commanders.

Some proposals are more far-reaching than others. General Meyer, for example, has advocated removing the service Chiefs from the JCS system altogether, replacing them with equally senior officers who would work for the Chairman, JCS, who would bring with them the experience of their individual services but who would not represent their services and who would not return to their service (they would retire after this job). The aim, of course, is for these officers to be positioned to give objective advice to the Secretary and the President, through the Chairman, JCS.

Luttwak would go much further. He would create a new category of joint officers, National Defense Officers, recruited from the best of the colonels and Navy captains. These national defense officers would staff the upper reaches of the Joint system. Recruited as colonels, they would not go on to command formations at the one-, two-, and three-star levels; such jobs would be retained by the "single-service" officers (those who chose to remain in their service rather than to pursue careers in the Joint system). The national defense officers would, however, command larger formations at the four-star level; in the meantime, they would attend schools and fill the various joint staffs, learning the principles and drawing up the operational plans for joint and combined military operations.

The Georgetown study is less ambitious than Luttwak, but nonetheless recommends significant change. It would strengthen the role of the Chairman by making him, rather than the corporate Joint Chiefs of Staff, the principal military adviser to the national command authorities. It would give the Chairman a four-star deputy, who would also be the Director of the Joint Staff. The Joint Staff would work for the Chairman, not for the corporate Chiefs.

Joint staff officers would be freed from their current restrictions as to tenure on the Joint Staff. Joint duty would become a separate career field, and vigorous efforts would be made, through education and through intervention in the promotion system, to create and advance officers willing to spend considerable portions of their careers in joint assignments.

The Chairman would supervise and direct the work of the unified commanders. The component commanders would become deputy unified commanders, very much under the full control and authority of the unified commander, and no longer be representatives of their service.

The Chairman would be authorized to develop strategic and operational plans that draw on service informational inputs but that do not require service approval, although the services and the Chiefs would be kept well informed and able to comment and disagree if they choose. The Chairman would also prepare his own program and budget, and would have a staff to assist him in this endeavor, in order to reflect his own priorities and the priorities of the unified commanders.

These are significant changes to the current system. Will they overcome the deficiencies being complained of?

The Remedies Considered

There were, one will recall, three broad complaints raised against the Joint Chiefs of Staff system: that the Chiefs do not provide a coherent military strategy, nor are they able to make constructive recommendations for adjusting roles and missions because of interservice rivalry; for this same

reason, the Chiefs do not give useful advice on resource allocation; and also for this same reason, the planning and conduct of military operations is not done well in the current system where service interests have such a large voice. Let us examine each complaint against the proposed remedies.

Strategy, Roles and Missions. The search for coherent strategy is a long-standing quest. In some ways it resembles the earlier quest for the Northwest Passage: both have been pursued by men convinced of their existence, both have been pursued with vigor and enthusiasm, both have remained elusive.

We live in a dynamic world, and we are part of a noisy democracy. It is unreasonable to expect too much coherence.

Nevertheless, we are not without a sensible strategy: to deter war with the Soviet Union by posing unacceptable risks of military conflict at least at the points of greatest interest and danger; to do this in conjunction with our allies; to strengthen deterrence and to improve our defense posture by deploying forces forward in certain areas; to raise the nuclear threshold by maintaining large, capable conventional forces; to maintain maritime supremacy without which we could not prosecute any war; and to defend our other interests around the world to the extent our resources allow. Why is this not a reasonably coherent strategy? What new strategic outline will result from modifying the JCS organization in the ways proposed?

To be sure, describing our strategy in this way begs many questions. There is a level of thought and potential action below the level of strategy and above the level of tactics which the Russians call "operational art." It is the theater level of activity, in which a more precise relationship between means and end is organized. Here, in my opinion, reform is needed. We need to develop more sophisticated appreciations of missions, tasks, and force requirements at the theater level. This will involve rethinking service roles and missions. It will not produce, however, great new defense economies. There already exist reasonable ground rules with respect to roles and missions for our forces. The services do represent distinct functional areas, and do not in general have broadly overlapping mission areas. Indeed, if we think of the most demanding scenario, one involving war with the Soviet Union, we are force-poor, not force-rich. It is true, for example, that we have airplanes and pilots in all four services, but it is not clear that we would be more efficient or more successful if we put all airplanes in a single service. It *is* clear that we would not need fewer airplanes as a result—we have too few already. Again, what useful changes in roles and missions would result from modifying the JCS organization in the way recommended?

I am not suggesting we have our act together. I am not saying interservice rivalry is not a problem. I do see the need for real improvements in the way we do business, particularly at the level of operational art—the integration

and employment of multiple forces. I do say that creating a general staff is not obviously the way to do it.

Programs, Budgets and Resource Allocation. It is a well-known fact that service Chiefs who advocate in their respective budgets 17 divisions, 27 tactical fighter wings, or 15 aircraft carriers are unlikely, when wearing their JCS hats, to advocate less. Those who hope each year that they will, hope against impossible odds.

The program and budget process is, moreover, extraordinarily complex and time-consuming, involving many actors and many influences. Formally, OSD gives planning and budget guidance to the services, based on guidance received from the President and from the Office of Management and Budget (OMB). The services develop their proposals for review by OSD, the Joint Chiefs, the unified commanders, and OMB; and for review and approval by the Secretary of Defense, the President, and the Congress. In the process of preparing the budget and program, and even more in the process of review and approval, coalitions of interested parties are continually forming and dissolving in the hope of influencing decisions on specific issues at the various stages in the review cycle.

Into this melee of activity, it is proposed to insert another budget and program prepared by the Chairman, JCS. It is hard to see how the Chairman will gather the ability to do this task well—gathering and maintaining a staff of highly competent analysts in a system which encourages frequent rotation of personnel is not easy. OSD has an advantage in this regard. But even if such a staff is created, the data needed for analysis must come from the services, who are closer to the facts and who will have a superior understanding of them. It is hard to see that the Chairman has any natural advantages in competing with OSD and the services in the budget business.

It is also true that most Administrations have taken the view that determining the budget allocations—deciding how the money is to be spent—is a political responsibility. Why turn this responsibility from OSD to the Joint Staff? The Chairman is already overworked; why give him the task that is already the responsibility of OSD? The natural advantage of the Joint system (and its legal responsibility) is in the area of war planning and military operations. Rather than spend his time building competitive programs and budgets, which everyone else in town is already doing, the Chairman should spend his time improving our war planning and military operations capacity, which very few people in town are working on, and which is badly needed. Then, if the Chairman brings a warfighting perspective to the budget table, he will be able to speak convincingly and authoritatively; but for this he does not need a competitive POM, just good warfighting analysis and a sense of priorities.

War Planning and Military Operations. Here is the area of principal responsibility for the Chairman and the Joint system. Here also is the place we have come up short in recent years. There is convincing evidence that part of the reason for failure—it would be foolish for any man to speculate how much—is the result of service interests conflicting with effective accomplishment of the mission. Even if this is true, it is desirable to separate the services from intimate participation in the war planning process? Would the plans be better if the service Chiefs were excluded from considering them? Would military operations be more successful if they were designed, and perhaps commanded, by officers who spent most of their careers in joint duty, and who had not themselves commanded similar units? I have doubts.

It is a delicate balance between acting out of ignorance because you excluded important information, and not acting effectively through compromise with competing interests. In considering separating the service Chiefs from a prominent role in war planning deliberations, we lose valuable experience and judgment and at least one direct connection to the forces who must carry out military operations. In building a new class of joint officers, we may exchange expert but insufficiently broad perspectives for broad but insufficiently expert perspectives. I do not know the correct answer. I do see a danger.

Conclusion

The Joint system is not perfect. For those of us who have worked within it, and who have suffered its frustrations, it often seems very imperfect indeed. Yet in the longer sweep of history, it has not done too badly. It has, in many ways, performed as well as a democracy and a committee system allow.

Of course, democracies and committees are not efficient, and this fact frustrates those of us trying to do a job of work. General Jones has observed that: "Committees can serve a useful purpose in providing a wide range of advice to a chief executive or even in making some key policy decisions, but they are notoriously poor agents for running anything, let alone everything." The Joint Chiefs of Staff, however, are not meant to run *anything*, let alone everything. They were established and chartered precisely to give advice. The frustration arises when we expect the Joint Chiefs of Staff to be what they were never intended to be. That a camel is not a racehorse is not the fault of the camel. Flogging him will not make him into a racehorse either.

Nevertheless, it might help to cut off one hump and turn the camel into a dromedary. It would reduce his windage and make him usefully faster. To accomplish this, only modest surgery, rather than major reform, is needed. Thus, while retaining the JCS intact, with its present five members, it would be helpful to:

- instruct the Chairman, JCS to concentrate on improving our war planning and our capacity for joint and combined military operations;

- streamline the clearance process for staffing papers within the Joint Staff by requiring the service staffs to provide information to Joint Staff action officers but not require service approval of draft papers until a matter has reached the three-star (operations deputies) level;
- transfer to OSD the management responsibilities acquired by the Organization of the Joint Chiefs of Staff, in order to alleviate the Chairman's responsibilities and allow him to concentrate on making a military success of planning and operations.

These are modest proposals, but they offer the hope that, by focusing rather than expanding the charter of the JCS we can expect early improvement in the area of principal military deficiency.

In our system of government, with its underlying political realities, DoD reorganization seldom achieves its laudable objectives. To say the obvious, the Defense Establishment is huge, and hugeness has implications, one of which is that, however you reorganize, you must still win the hearts and minds of those involved in the defense business—in DoD, elsewhere in the Executive Branch, in the Congress—to be successful. The Defense Establishment, like a super-tanker, turns very slowly; but, unlike a tanker, DoD has many de facto captains, each controlling a portion of the rudder, and, thus, a great deal of cooperation is needed to set a new and better course.

What is needed, in my judgment, is less reorganization and more education; education for senior officials and senior military officers about ways to do our defense business more cooperatively and less competitively. Service parochialism is a serious impediment to an effectual Defense Establishment. It will not be cast out by fiat, but it can be lessened through education.

Service competition may be healthy at the small unit, junior officer level, but it is unhealthy at the senior officer level, and should not be tolerated from general and flag officers. A better education is needed for officers at the 0-5 level and above on the subjects of politics, strategy, operational art, joint and combined operations, the true strengths and weaknesses of various military instruments (land, sea, air) for achieving particular objectives, and ways to work together to achieve the nation's military objective, rather than ways to capture a larger share of the defense budget. This education will not result from reorganization of the JCS.

Ultimately, any reasonable organization consistent with the Constitution and our democratic values can be made to work provided the civilian leadership is willing to exercise its responsibility and authority for management and direction and the Joint Chiefs of Staff and unified commanders fulfill their obligations of achieving the most military effectiveness from the resources assigned them. Experienced, competent, rationally oriented staffs will help civilian and military leaders make good decisions. Choosing good leaders, and educating good staff, is the key. Major reorganization is a tangent.

Inside the JCS: Decisions in Crisis

Admiral J.L. Holloway III, US Navy (Retired)

One of the principal reasons for public support for a major overhaul of the JCS system, and the most compelling argument invoked by the advocates of defense reform, is the popular misconception that the Joint Chiefs of Staff have become so committed to the parochial affairs of their own services that the advice they provide is neither timely nor objective. These allegations give rise to a prevailing impression that in time of crisis or national peril, the JCS system will be paralyzed by the burden of service self-interest aud that clear, decisive, and prompt operational decisions will not be forthcoming. If this allegation were true, it would indeed be cause for the gravest public concern, and constitute adequate justification for a drastic reorganization of the Joint Chiefs of Staff.

Fortunately it is not true.

During my entire four-year experience as a member of the Joint Chiefs of Staff there was not one single occasion when the Chiefs failed to provide timely and objective operational advice as a consequence of their inability to reach a consensus on the proper course of military action. The basis for the misconception is probably the comment made by General Jones before the House Armed Services Committee on 12 April 1982, that "The corporate advice provided by the Joint Chiefs of Staff is not crisp, timely, very useful or very influential."

This statement needs to be carefully explained. The military advice of the Joint Chiefs of Staff takes two forms. First, there is time-sensitive advice generally related to military operations. The JCS react under these conditious immediately and with decisive authority. This operational advice, in my personal experience, has never been late or lacking in quality, and has generally received high marks by the Secretary of Defense and the National Security Council. On the other hand, military advice reflecting the deliberative planning process or long-range policy has not always been as precise, comprehensive, or as prompt as desired. There are reasons for this, but the important point is that the popular misconception—that the Chiefs

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Admiral Holloway retired as the twentieth Chief of Naval Operations in 1978, currently serves as the President of the Council of American Flag Ship Operators, and also serves as a consultant and board member to a number of business and professional organizations.

are unable to provide responsive, timely operational advice—is simply not true. Therefore, it cannot be the compelling reason for making major modifications in a JCS system that, in fact, is working well.

Unfortunately, proponents for a major restructuring of the national military command system have relied on information which often has been misinterpreted, misrepresented, or does not fully reflect current circumstances. While a number of former Defense officials and former members of the Joint Chiefs of Staff testified before the 97th and 98th Congresses in support of major structural changes, members of the current Administration, including the Secretary of Defense, the Service Secretaries and the members of the Joint Chiefs of Staff, were *unanimous* in their opinion that the present system is essentially sound and that further statutory changes are neither necessary nor desirable.

Nevertheless, the momentum of a public demand for reform in the Department of Defense has been slow to subside. The arguments have coalesced and the battlelines have been drawn. Suggestions for JCS reform have been put forth in a series of legislative proposals and some minor features were incorporated in the Nichols Bill. More recently, a major study effort at the Georgetown Center for Strategic and International Studies, "The CSIS Defense Organization Project," has proposed drastic alterations to the JCS system, changing the fundamental precepts upon which the current JCS concept was established. The CSIS project seeks to generate broad public support, with the end objective of landmark congressional legislation to reorganize extensively the Department of Defense and the Joint Chiefs of Staff.

One of the main purported advantages of the proposed reorganization is that it would streamline the decisionmaking process and provide quicker decisions. It is true that the decisionmaking process could be streamlined, but only at the expense of eliminating the deliberation of considerations and alternatives which ultimately lead to better decisions. With a streamlined process, decisions are arrived at with less discussion and no debate. This is not in the best national interest. No rational person could want a quick decision regardless of whether it be right or wrong. The proper philosophy should be to seek the right decision, and make that decision in time to be effective.

During my four years as a member of the JCS, the Chiefs were able to provide the best operational advice to the National Command Authorities in a timely manner. In fast-breaking crises, initial JCS recommendations were often based on the sketchiest of information and tended to be conservative. As additional intelligence became available, recommendations were continuously refined, and on occasion were substantially altered as a broader understanding of the situation unfolded.

On the other hand, when there is time, as there is in policy or programmatic matters, there should be exhaustive debate with all of the

Chiefs participating so that no potential alternative or solution goes unconsidered. That is the present system. It ensures that the frank and honest views of the four most experienced and competent military men in this nation are given the most careful consideration in the formulation of military advice. To suppress this debate solely for the purpose of "streamlining" the decisionmaking process would be irresponsible. Agreed, it would be less frustrating to avoid in-depth examinations of the issues by all of the Chiefs. It would obviously be less time-consuming to have decisions made by rhe Chairman alone. But the factors that enter into decisions on national security matters are generally so complex that no one man has the experience or the capacity to deal competently with them all.

The objective in organizing a national military command structure cannot be simply to create a mechanism for the elimination of controversy. When challenge and debate are required to arrive at the best decisions in a complex, changing, and imperfect world, perfect harmony is not possible. We must accept the reality of divergent views among our military experts and fashion a system in which those various approaches can be presented to the civilian authority in a matter which facilitates the best decision in the time frame allowed by the contingencies.

General Jones' comment on the timeliness and quality of the corporate advice provided by the Joint Chiefs of Staff was not entirely inaccurate.

It was my experience that the advice on planning, programming, or policy matters from the Joint Chiefs of Staff to the National Command Authorities was frequently prolix, often late, and too often not what the Secretary of Defense or the President wanted to hear. There were good and sound reasons for this. It must be kept in mind that the JCS are responsible for providing military advice. Often it relates to an issue that also involves foreign and domestic political and economic considerations. The military aspect would be only one of the inputs the President would consider. In these cases the Chiefs' position represented the military solution to a much broader problem. The JCS advice was being weighed by the President along with foreign policy and domestic political considerations. Consequently, there was good reason for the Chiefs' advice not always being included in the final position.

During much of my tenure as a member of the JCS, I served an Administration that had been elected on a platform of cutting defense. The JCS were frequently asked to concur in Administration positions that drastically reduced military spending. To support such policies, and at the same time fulfill their responsibilities to ensure that the United States retained a defense posture capable of meeting the threats to our security, placed the Chiefs in a very difficult position. It was particularly hard to endorse policies that proposed to cut military spending and yet would result in no reduction in military capability. The Chiefs, who felt strongly concerning their obligation to provide to the Secretary of Defense and the President their

best professional advice with total frankness, were more and more frequently in the position of providing advice that ran counter to the intentions of the President and policies of his Administration.

This is not to say that the Chiefs publicly differed with their Commander in Chief. The Joint Chiefs of Staff have clear-cut guidelines for expressing their opinions. They are perfectly free to oppose or support any proposals of the Department of Defense in their discussions with the Secretary or the President. But when the decision is made by the President or by the Secretary of Defense in the name of the President, the Chiefs are expected to support that decision. If a Chief finds he cannot support that decision from a sense of professional conviction or moral principle, he should resign.

It was my experience that the Chiefs often disagreed with decisions made in the White House but none of them felt that any individual decision by the President was so damaging to the security interests of the nation as to cause them to leave. But the fact remains that the Chiefs disagreed with the President with uncomfortable regularity. Frankly, they did not like to disagree with the judgment of their Commander in Chief, but they felt that their best support was their frankest professional military appraisal, to do with what he wished. In the end, the situation became so awkward that the Chiefs were quite often not asked for their input, or their advice was requested so far along in the process that the responses would be so late as to be after the fact. Consequently, in an effort to be tactful and as supportive of the President as possible, and still maintain the integrity of their professional views, the Chiefs' positions became increasingly labored, and usually late. It was seldom the kind of advice the President wanted to hear, and as a result the Chiefs were accused of giving "bad advice."

The CSIS study proposes three major modifications to the JCS system, all of which are designed to streamline the decisionmaking process by generally excluding all other sources of professional military advice other than the Chairman. These changes are:

- Strengthening of the position of Chairman by making him the principal military adviser to the National Command Authorities (the President and the Secretary of Defense and the National Security Council) and essentially eliminating the other members of the Joint Chiefs of Staff (the respective service heads) from their existing role of military advisers to the President;
- Creating a four-star Deputy Chairman of the Joint Chiefs of Staff who would function as Chairman whenever the principal was not available. This would permanently bar access of the service Chiefs to the Secretary of Defense and the President on operational matters; and
- Reorganizing the Joint Staff so that it works for the Chairman rather than for the Joint Chiefs as a corporate body.

These three provisions are completely contrary to the basic philosophy of our national military command structure.

The national military command structure must be fully consistent with our national ideals and democratic form of government. Systems employed by totalitarian regimes and military dictatorships will not be acceptable to the American people. The twin foundations of national policy governing the concepts of a national military command structure for the United States are: first, that it will produce the correct military decisions for the survival of the United States; and second, that it will preserve the democratic principles of civilian control.

The CSIS proposal both violates the safeguards for the assurance of civilian control, and substantially reduces the chances for arriving at the best military decisions. This is because the position of Chairman, JCS, becomes too powerful.

First, the Chairman alone assumes the role of principal military adviser to the President, the Secretary of Defense and the NSC, displacing the corporate body of the JCS (the Chairman and the four service Chiefs) from that function.

Second, a four-star deputy senior to the other members of the JCS is created. Although the proposal requires the deputy to be from a different service than the Chairman, a deputy by definition is responsible to reflect the views, policies, and decisions of the principal. The Chairman and his deputy become a single entity, always available to the Congress, the National Security Council, the Secretary of Defense, and the President, for the presentation of military advice. This effectively eliminates the opportunities for the other service Chiefs to deal directly with the NCA even in the absence of the regular Chairman.

Third, the Chairman assumes full authority over the Joint Staff, which presently supports the corporate body of the Joint Chiefs of Staff. The Joint Staff would be reorganized as an independent military staff, with the Chairman selecting its officers and taking a significant role in their subsequent promotions. This would create the classic general staff, comprised of officers specializing in headquarters-type duty, as opposed to an organization of officers rotating through the staff from field and operational assignments. Americans have traditionally opposed any military system that places greater emphasis on headquarters and staff assignments than duties in command, and associated with combat units in the field.

Finally, the function of the service Chiefs as the principal military advisers to the National Command Authorities, through their role as members of the JCS, would be virtually eliminated—there has been interposed a Deputy Chairman. The individual members of the JCS will no longer perform the duties of Acting Chairman and participate in discussions with the President and the National Security Council. Cutting off the communications between the members of the Joint Chiefs and the Joint Staff by making the latter

responsible only to the Chairman, denies the service Chiefs their professional input to the decisions and views of the Chairman as they now do through the Joint staff work process. Further, as the Chairman controls the staff, it will be responsive to the Chairman's predilections. Advocacy of alternative approaches will be lost. Reasoned debate for alternatives and options will be largely eliminated from the Joint Staff process.

As the power of the Chairman expands and the supporting staff is increasingly subordinated to reflect only the Chairman's views, the Secretary of Defense and the President become isolated from all military points of view but that of the Chairman. So civilian authority, instead of retaining command, in effect abrogates that authority to the Chairman of the JCS because the NCA has no alternative to the military advice the Chairman provides.

There is another reason why the service Chiefs should not be removed, even partially, from the function of principal military advisers to the National Command Authorities in their role as members of the JCS. To do so would separate authority and responsibility. Experience has demonstrated time and again, this is fatal to the success of military operations. The service Chiefs are responsible for organizing, equipping and training their forces. The Chairman is not.

It is through these responsibilities as well as from their professional lifetime of service experience, that the Chiefs are recognized as the single individuals with the most comprehensive appreciation of the capabilities and limitations of the military forces of their respective services. Because they are responsible for the readiness and performance of those units, they should, therefore, be involved with the chain of command or authority that directs the employment of those forces.

The Congress has long recognized that to separate responsibility and authority leads to an impossible system of accountability. It would result in a military establishment totally out of control. The views of the Congress on this point are very well expressed in the language accompanying the Defense Procurement Authorization of 1968: "The Joint Chiefs of Staff system is considered by most authorities to be the finest military decision-making body in the world because it brings together the views of the four separate services and combines the responsibility for planning with the responsibility for execution."

From the very beginning, the Congress has opposed a strengthening of the Chairman's role. The House Report 1765, 85th Congress, 2nd Session, on the DOD Reorganization Act of 1958 said: "Nothing in the proposed legislation or elsewhere in law, sets the Chairman apart from the corporate body of the Joint Chiefs of Staff or makes the Joint Staff his servant rather than the servant of the corporate body. The loyalty of the Joint Staff must be to the corporate body of the Joint Chiefs of Staff. The Joint Staff must not become

the personal preserve of the Chairman of the Joint Chiefs of Staff. Were this to happen, it would constitute a long, and probably final, step toward an overall Armed Forces general staff."

World War II was by far the greatest of any epoch in military history. The technology spawned by that monumental conflict—the atom bomb, the guided missile and the jet aircraft are but several examples—has left its indelible mark on the most basic concepts and philosophy of warfare. It is not surprising, therefore, that in the aftermath of World War II, the Military Establishment of the United States was drastically restructured to accommodate the enormous power and the global reach of the new weapons and delivery systems.

After extensive discussion and debate, with the experience of World War II freshly in mind, the National Security Act of 1947 was enacted. It retained the separate services but placed them under the coordination of a newly created Secretary of Defense, and established the Joint Chiefs of Staff. The Act specified that the Joint Chiefs of Staff would "act as principal military advisors to the President and the Secretary of Defense." The Act also listed certain specific duties to be performed by the JCS, including the preparation of strategic plans, providing for the strategic direction of the military forces, the preparation of joint logistic plans, the review of major materiel and personnel requirements of the military forces, and the establishment of unified commands in strategic areas. However, nothing was said about a chairman.

A year's experience under the 1947 Act resulted in the 1949 amendments, which created the position of Chairman. During the congressional debate on this legislation, considerable opposition surfaced, based upon deep concerns that the new Chairman would become too powerful. These apprehensions were reflected in the restrictive language that was included in the final legislation.

In 1953 President Eisenhower instituted another major change. Designed primarily to strengthen civilian control of the armed forces, it removed the Joint Chiefs of Staff from corporate responsibility for operations.

In 1958, during his second term, President Eisenhower proposed what was to be the final major reorganization of the national security system. It was the logical culmination of the unification process made necessary by the revolution in warfare brought on by the explosive growth in defense technology. Strategic planning was completely unified, combat forces were organized into unified commands, and the Joint Chiefs of Staff were again given operational responsibilities as the Secretary of Defense's military staff to assist in the direction of the unified and specified commands.

Again, in enacting the legislation of the Reorganization Act of 1958, the Congress demonstrated its concern over the potential for a chairman to

acquire excessive power. The legislative language limited the role of Chairman to that of a senior among equals—the Chairman of the four members of the Joint Chiefs of Staff, each with one vote.

The architects of this postwar transformation of the American Defense Establishment seemed to be prescient in their vision, as the new defense organization was able to absorb effectively the introduction on new weapons systems spun off by the postwar technology: ballistic missiles, nuclear-powered submarines, space satellites, and computers. As each of these technologies emerged as useful military systems, their application, utilization, and control were incorporated into the national military command structure with a minimum of disruption.

Since its inception, the JCS system has served us well—through the Korean War, Suez, the occupation of Lebanon, the Quemoy-Matsu affair, the invasion of the Dominican Republic, the Cuban missile crisis, and the war in Vietnam. Therefore, it seems anomalous that after one of the most benign periods in recent American military history—the Carter years—there should be such strong pressures for reform of the Joint Chiefs of Staff system.

The national military command structure or the JCS system should not be reorganized just for reform sake. We do have a system that is working. It has served us well in its same basic configuration through two major conflicts and three decades of cold war with the Soviet Union during which the United States has vigorously exercised its role of leadership of the Western World. To tinker with this machinery simply on the premise that we *might* improve it would be a most dangerous form of experimentation.

There are solutions to the criticisms leveled at the present system which are less drastic than the suggested legislation, and would not require a fundamental alteration of basic concepts. The main arguments for a four-star deputy are predicated on achieving greater continuity in the office of CJCS when the Chairman is to be absent from Washington. This potential problem seems to have been solved. Currently, each member of the JCS acts as Alternate Chairman for a three-month period on a rotational basis. The designated officer arranges his schedule during that period so that he will be in Washington and available to act as Chairman in the absence of the regularly appointed CJCS.

There will always be the need for some modification in JCS organization and a general staff dominated by a single Chief of Staff. Historically, the Congress has assiduously protected the principle of civilian authority and rejected any proposals that would encourage the development of a general staff kind of organization dominated by a single, powerful military man.

The National Security Act of 1947 says, "Sec.2. In enacting this legislation, it is the intent of Congress to provide a comprehensive program for the future security of the United States; . . . but not to establish a single

Chief of Staff over the armed forces nor an overall armed forces general staff."

The House Report 1765, 85th Congress 2nd Session, on the DoD Reorganization Act of 1958 said: "It has, parenthetically, been a concern of the committee, in considering the proposed legislation, lest a defense organization be ultimately created in which power is totally concentrated in the Secretary of Defense only so that it may be wielded and controlled more effectively by a military tier (Chairman of the Joint Chiefs of Staff and Joint Staff) immediately below him.

"For these and other reasons, Congress has historically rejected an armed forces general staff and single Chief of Staff. . . . In response to these fears . . . the original act limited the size of the Joint Staff to 100 officers; provided for its balanced membership among the services; made it responsible to the Joint Chiefs of Staff as a corporate body; and provided that the director be appointed by, and junior to, the Joint Chiefs of Staff."

If changes are made to the JCS system, those alterations should be for the purpose of correcting valid shortcomings of the system that, in fact, represent a threat to its ability to provide the best possible military advice to the Commander in Chief, and to implement the policies and the operational commands of the National Command Authorities to the operating forces in the field in a timely and effective manner.

The current reform proposals would satisfy neither of these criteria.

An Assessment of the JCS as an Advisory and Decisionmaking Institution

David K. Hall

For the first time since the late 1950s, the US Government is embroiled in a major debate over the proper organization of its highest military institutions. Since Generals Jones and Meyer released their articles critical of the Joint Chiefs of Staff (JCS) in early 1982, there has been a continuous series of congressional hearings, proposed bills, journal articles, think-tank reports and newspaper editorials about whether or not the current JCS apparatus provides the nation with the best possible military advice, and whether this apparatus is effective in executing the National Command Authorities' (NCA) decisions. The debate on this subject is certain to continue for several more years—given the legislation that has already been proposed in the 99th Congress, the amount of public attention which the issue has now attracted, and the reality of the hard strategic and financial choices which face the United States Government.

This author's assessment of the benefits, costs and risks of the past three years of debate about the Joint Chiefs of Staff is as follows:

On the *positive side* of the ledger, the controversy has accomplished two things:

First, it has provided additional motivation for the five members of the JCS who took office during 1982-1983 to review and revise their internal procedures and external relationships. It also provided them with helpful political protection against those elements within the Department of Defense (DoD) reluctant to change. This self-examination began in the summer of 1982 with the arrival of General John Vessey as Chairman of the JCS. It led to some 40 executive sessions of the Joint Chiefs devoted to the subject of JCS structure and procedures, and it resulted in a number of significant adjustments which are only now beginning to be fully felt.

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Second, this controversy over the quality of military advice and decisionmaking has also had the positive effect of triggering an investigation into the manner in which other national institutions impact on military decisions and the ways in which these other structures and procedures can be improved. Such recent assessments of defense decisionmaking as the Center for Strategic and International Studies' (CSIS) *Toward a More Effective Defense* and The Heritage Foundation's *Mandate for Leadership II* recommend changes in most of the elements of the defense structure: the Office of the Secretary of Defense, the service Secretaries, the service Chiefs, the Combatant Commanders (CinCs) and the Congress. Recognition that improving military advice and execution requires systemic change, and not action confined to the Joint Chiefs of Staff alone, was also found in the Senate and House Armed Services Committees' decision in October 1984 to ask every major element of the Military Establishment for formal comments on Defense Department organizational issues.

While widespread debate over the quality of JCS advice and decisionmaking has had these important benefits, it has also created several risks which need to be addressed. If these risks are not fully considered during the months of discussion which lie ahead, then the positive contributions which have flowed from this controversy will ultimately be outweighed by the costs imposed on the national security process.

There are three categories of risk:

1. The structural and procedural changes which are being proposed for the Joint Chiefs of Staff greatly exaggerate our ability to improve military policy through structural reorganization. They paint an unrealistic image of how national security decisions are actually made at the highest levels of our government and they raise unrealistic expectations about what can be accomplished through mechanistic tinkering.

2. If the authority of the Chairman of the Joint Chiefs is increased to the extent contemplated by some advocates of structural change, then the National Command Authorities—the President and the Secretary of Defense—could be isolated from the best military advice available within the professional armed forces and could become excessively dependent on a single source of military information.

3. Proposed changes in the Joint Chiefs of Staff could undermine the very important and very useful advances in military "jointness" which have occurred during the past three years. There is no proof that this current jointness will be possible under the changes proposed by the JCS's critics.

Since these are significant judgments on the risks of pursuing the frequently proposed changes in the JCS system, the remainder of this paper will be devoted to substantiating these views.

The Impact of Formal Organization on National Security Policymaking

Critics of the JCS system advocate changes in its formal structure and procedures on the assumption that these changes will improve the quality of our national security decisions. What are the odds that this intended effect will actually occur?

Some of our predictions about this must be drawn from prior research on the reorganization of governmental institutions, since we are speculating about a change in the Joint Chiefs of Staff which has yet to occur. And the consensus among scholars who have conducted empirical research on governmental reorganizations—whether at the federal or state levels—is quite clear: there is virtually no evidence that large-scale structural changes ever achieve the policy goals which drive these reorganizations. One specialist's review of the available evidence concluded: "It is a myth that reorganizing by itself will produce either real or lasting change. There is little evidence that it will, and a great deal that casts doubt on it. Reorganizing is threatening, is at times destructive and it is always costly."[1]

Another body of research relevant to assessing the utility of JCS reorganization is the highly respected work on organizational leadership and performance conducted by Dr. Fred Fiedler and his associates during the past three decades. Fiedler's research demonstrates that, of the three basic factors which impact on the effectiveness of an organization's *leadership*—namely, the formal authority of its leader, the nature of the organizational task and the quality of its leader-member relations—it is the quality of leader-member relations which is most important in determining unit performance, and it is the formal authority of the leader which is the least important in determining unit performance. These results underscore the view that formal authority in a situation—the factor with which JCS "reformers" are preoccupied—is least important in determining the effectiveness of an organization. And, insofar as any organizational changes in the JCS adversely affect the quality of the interpersonal relations among the Chairman and the other Chiefs, the "reformers" will have disrupted the most important predictor of the JCS's performance.[2]

Another way to document how little influence formal structure actually has on the decisionmaking process is to reflect on the many different ways in which our security institutions have been run without any significant changes in their official design:

- There have been no formal changes in the statutory powers of the Secretary of Defense since 1958, when Congress finally mandated that everything in the Department should operate under "the direction, authority and control of the Secretary of Defense." Despite this absence of formal change since 1958, few would disagree with the proposition that there have

been major differences in the actual power of succeeding secretaries and actual processes with which they conducted their duties. Caspar Weinberger has not run the Department the same way Robert McNamara did.

- There have been no statutory changes in the charter of the President's National Security Council nor in the formal authority of the National Security Council staff since passage of the National Security Act in 1947. Yet no one could deny that succeeding Presidents have used this Council and staff in very different ways, or that some Councils and staffs have been more successful than others.
- A similar comment can be made about the Arms Control and Disarmament Agency created by President Kennedy. While the legislation defining this organization's mission has remained unchanged, it has played a different role in strategic arms control policy and negotiations in each Administration.

The operation of the Joint Chiefs themselves helps to make the point that drawing the formal structure and reporting lines for an institution does not control its role in the national security process. One can compare, for instance, the role of the Chiefs during the Kennedy administration with that of the Chiefs in the current Reagan administration. Following the Bay of Pigs in April 1961, when President Kennedy's trust in the Chiefs tumbled, the President established his own Military Representative on the White House staff. From this location, General Maxwell Taylor assembled his own military staff, chaired some of the most important policymaking committees in the US Government and made direct advisory inputs to the Oval Office on such critical issues as Vietnam, Cuba, Berlin and the defense budget. All of this, of course, directly violated the spirit and probably the letter of Title 10 USC, which makes the Joint Chiefs of Staff the "principal military advisors to the President, the Secretary of Defense and the National Security Council." This example graphically illustrated just how tenuous were any statutes which formally mandated JCS power at the pinnacle of the US Government.[3]

The Reagan administration, on the other hand, illustrates the close working relationship which is possible between the President and the Joint Chiefs within the very same statutes which prevailed during the Kennedy administration. Since the summer of 1982, the full body of Chiefs has held ten private meetings with the President to discuss major policy issues. (These meetings are in addition to normally scheduled National Security Council meetings attended by the Chairman or Acting Chairman.) Unlike previous Administrations, where the agenda of the President's meetings with the Chiefs were intentionally confined to noncontroversial topics, the current quarterly meetings with the Chief Executive have addressed such critical questions as US strategic policy, the size and composition of the Defense budget and the crisis in Grenada.[4] It is known, for example, that the

policymaking meeting which prompted President Reagan's announcement of the Strategic Defense Initiative was his session with the Joint Chiefs of Staff on 11 February 1983 when alternatives to the MX missile were discussed in depth.[5]

One other important example can be cited to illustrate that formal definition of the JCS's role will not control the way military advice is formulated and then transmitted to the National Command Authorities. On 19 October 1984, with the signing of the FY 1985 Defense Authorization Bill, seven statutory changes were made in Title 10 USC as it relates to the Joint Chiefs of Staff. Since the passage of these seven changes, internal DoD studies have tried to define how the law should be interpreted in practice. These studies have concluded that there are several possible interpretations for each statutory change, and that the actual interpretation of the law will have to be left to the judgment of the Chairman and other senior officials.

To illustrate, consider the new provision in Title 10 USC which states that the Chairman of the Joint Chiefs of Staff now serves "as the spokesman for the commanders of the combatant commands on operational requirements." One interpretation of this new provision is that the Chairman will speak as the Washington-based representative for each CinC's position on operational requirements. However, each combatant commander retains the right to interact directly with the Secretary of Defense, the military services and Congress regarding his operational requirements. An alternative interpretation of this new authority is that the Chairman now has the final say on CinC operational priorities and resource requests. This, in turn, can be interpreted to mean that the Chairman is the sole line of communication between the CinCs, on the one hand, and the Secretary of Defense, the services and Congress on the other, and that the Chairman will become a much more active articulator and defender of these operational requirements before Congress.[6]

Members of the Joint Staff have concluded that there is legal support for varying interpretations of each of the other JCS-related changes contained in the FY 1985 Defense Authorization Bill. Which interpretations any future Chairman adopts will depend both upon his desires and those of the other key participants in the national security process. This is just another illustration of Dean Rusk's observation, soon after stepping down from eight years' service as Secretary of State, that "the real organization of government at higher echelons is not what you find in textbooks or organization charts. It is how confidence flows down from the President."[7]

The Quality of Advice to the National Command Authorities

One of the frequently heard criticisms of the current JCS system is that the advice which reaches the President, the Secretary of Defense and the

National Security Council through the current apparatus too often reflects the parochial interests and expertise of the four service Chiefs. It is for this reason that many of the proposed changes in the current system call for strengthening the advisory role of those military officers less directly identified with one of the military services. Among the proposed changes are to make the Chairman of the Joint Chiefs of Staff (rather than the Chiefs) the principal military adviser to the President, Defense Secretary and NSC; to make the Chairman a statutory member of (rather than an adviser to) the National Security Council; to have the Joint Staff report directly to the Chairman (rather than the corporate JCS); and to create a four-star Deputy to the Chairman who would represent the JCS in the Chairman's absence. The most extreme advocates of structural change, such as Congressman Ike Skelton (D-Mo) and publicist Edward Luttwak, would abolish the JCS altogether and replace it with a single Chief of Staff for military advice and operational execution.

While a cursory look at the statutory relationships among the Joint Chiefs, the President, the Secretary of Defense and the National Security Council might suggest that they can be improved, closer examination reveals that the current system strikes a very delicate and vital balance among the competing imperatives of adequate military expertise, sufficient integration of this advice for civilian leaders and continued assurance of civilian control over the armed forces. As one contemplates the alternatives to the current JCS system, one ultimately concludes that any major structural shift in the direction of a single Chief of Staff runs the risk of isolating the National Command Authorities from relevant military expertise and reduces their level of control over the Military Establishment.

One of the more bizarre and unfounded claims made by proponents of change in the JCS system is the assertion that the current apparatus has not allowed the Chairman to provide cross-service advice and "speak in his own right" vis-à-vis the President, Defense Secretary and NSC. Statutorily, it is quite clear that the Chairman has this authority. While Title 10 USC 142 obligates the Chairman to present fairly the views of the other Chiefs when serving as their official spokesman, Title 10 also calls upon the Chairman to inform the President and the Secretary of Defense of those issues on which the Joint Chiefs have not agreed. Since the Chairman is a member of the Joint Chiefs of Staff, this latter provision obviously empowers him to speak his own mind whenever his views happen to differ from those of his military colleagues.

At a more practical level, it is quite clear that succeeding Chairmen of the JCS have fully expressed their personal views on military issues to the National Command Authorities. Critics of the system seem to have forgotten that one of the complaints about the Joint Chiefs in the mid-1950s (during "the revolt of the colonels") was that Admiral Arthur Radford had too much

influence with President Eisenhower, not too little. The Army's Chiefs of Staff at the time, General Matthew Ridgway and General Maxwell Taylor, indicated that Eisenhower's massive retaliation strategy and his reduction in the Army's size represented an excessive dependency on the military advice of Chairman Radford. Radford often made the force choices and budget recommendations to Secretary of Defense Wilson which brought the service budgets into line with Eisenhower's stringent fiscal guidelines.[8]

Quite clearly the Reagan administration has looked to General John Vessey as a source of independent cross-service advice. As Secretary Weinberger said in congressional testimony in July 1983, "I believe that . . . I must have the Chairman's personal advice—not simply as head of a committee, but in his own right as the nation's senior-serving military officer."[9] That this concept has been reflected in the Chairman's behavior was made clear by Dr. David Chu, the Pentagon's Director of Program Analysis and Evaluation, when he testified before the Senate in 1983 about the operation of the Defense Resources Board which reviews all military department program requests:

Senator Sam Nunn. Are they [the Defense Resources Board] asking him [the Chairman JCS] to participate in his own individual view or corporate view?

Dr. Chu. He is being asked increasingly to offer his views, not in the sense he ignores anyone else's but he is being asked to offer his views.

He is being asked as Chairman frequently to head with another officer in the Defense Department some of the very specific reviews of problems that the Deputy Secretary identifies . . . .

Senator Nunn. You are asking him for his individual views?

Dr. Chu. Yes, sir.[10]

Finally, the individual who is most responsible for having launched the current reassessment of the JCS system—former Chairman General David Jones—made it quite clear in his February 1982 critique of the system that he had no difficulty in offering his personal opinion to the President or Secretary of Defense. Describing the advisory relationships which existed early in 1982, General Jones wrote: "The main contact with the President comes when I participate as the Joint Chiefs' representative in National Security Council meetings. Such meetings are scheduled frequently by President Reagan who has used the National Security Council forum more than any President since Eisenhower. I have the full opportunity at these meetings to express to the President the corporate view of the Chiefs as well as my personal views on any matters, regardless of whether the Chiefs have addressed them. I also have the opportunity to express such views below the Presidential level as a member of various interagency and Defense working groups such as the Military Manpower Task Force, the Defense Resources Board and the Armed Forces Policy Council."[11]

If critics of the current JCS system, such as General Jones, agree that the Chairman has had ample opportunity to articulate his personal, cross-service

views on major issues, what can we conclude about their desire to strengthen still further the advisory role of the Chairman vis-à-vis the other Chiefs of Staff? The only logical conclusion is that General Jones and other advocates of change would like to eliminate the requirement that the Chairman provide the President, Secretary of Defense and National Security Council with the views of the other Chiefs when these happen to diverge from the Chairman's personal view. They do not want the Chairman to have to compete for the confidence of the National Command Authorities.

Would cutting off the President, the Secretary of Defense and the National Security Couucil from disagreements among the Joint Chiefs be in the national interest? The question practically answers itself. All empirical and normative research on the uational security process during the past decade has come to the same general conclusion: the Chief Executive must do everything he can to prevent himself from being confined to a narrow set of value premises, policy options and intelligence assessments emerging from the bureaucracy. To prevent such intellectual insulation requires not only the Chief Executive's tolerance of a healthy amount of competition among his advisers but the actual encouragement of such analytical rivalry when it is not spontaneously forthcoming. This is the fundamental message to emerge from such highly regarded publications as Irving Janis' *Victims of Groupthink* and Alexander George's *Presidential Decisionmaking in Foreign Policy*.[12] Abandoning the current JCS system, in which the Chairman has an obligation to articulate any differences which exist among the Chiefs, flies directly in the face of these carefully documented conclusions.

Our best Presidents have, in fact, recognized that when vital security decisions are being made, they should get as many informed military views as possible. During the National Security Council sessions in the spring of 1954, when Dien Bien Phu was falling to Vietnamese rroops, Army Chief of Staff Ridgway went head-to-head with Secretary of State Dulles and Chairman Radford and helped convince Eisenhower that American military intervention would be an error. During the Lebanon and Taiwan Straits crises of 1958, Eisenhower consulted with the full body of Chiefs and not just the Chairman. During the spring of 1961, President Kennedy discovered the full body of Chiefs deeply divided over whether to intervene in Laos when he invited them to the National Security Council. During the Cuban missile crisis, Kennedy called in all five Chiefs. Prior to intervening in Grenada, President Reagan held a lengthy discussion with the full Joint Chiefs of Staff.[13] The bottom line is clear: effective Presidents have long recognized that the best professional military advice which they can obtain is represented in the experience and wisdom of the corporate body of Chiefs, not just a single military adviser.

Recent proposals for changing the structure of the military advisory process would be more persuasive if it were clear that prior military advice

had been fundamentally flawed. Fortunately, however, there is not much evidence that this has been the case. Some critics suggest that high-level military advice has not been timely. While this may have been true for some second-order issues, it clearly has not been true for important time-sensitive decisions requiring immediate action by the White House. It is well-known around Washington that the Pentagon has long provided faster and crisper advice in a crisis than any other element of the national security bureaucracy. President Reagan and Secretary Weinberger have gone on record as saying that they receive timely military advice.[14]

When one recognizes that criticisms of the JCS's "timeliness" refer to lesser-order issues or to those lacking in some action-forcing deadline, this criticism takes on a different hue. First, like all other important bodies in the US Government, the JCS has more issues than it can possibly handle. Some naturally fall to the bottom of the in-basket. Second, some issues are extremely involved and deserve a highly deliberative examination stretching over months and even years. In some instances the wisest decision is not to do anything. Third, the effectiveness of the joint planning process is being judged against a standard which no one dares apply to other institutions in Washington.

Everyone concedes that Congress, the White House and the State Department take years to address such thorny problems as terrorism, nuclear proliferation, technology transfer and the budget deficit. Why the JCS should be different than these other national institutions is not clear. Finally, and perhaps most importantly, in September 1984 Congress took the legal action required to rectify any *structural cause* of untimely military advice. One of the changes to Title 10 contained in the 1985 Defense Authorization Act provides that the Chairman will: "provide agenda for the meetings of the Joint Chiefs of Staff (including any subject for the agenda recommended by the Joint Chiefs of Staff), assist them in carrying on their business as promptly as practicable and determine when issues under consideration shall be decided."[15]

The most plausible interpretation of this new provision is that the Chairman now has full statutory power to decide when a determination of the Joint Chiefs of Staff has been reached, both in calling an end to JCS discussions or in prolonging these decisions, even after a JCS vote. Given this legal control over the moment when JCS advice moves forward to the Defense Secretary and the President, it seems logical now to conclude that any future complaints about the timeliness of military advice can be laid at the door of the Chairman of the Joint Chiefs.

When one turns from the issue of timing and asks whether the JCS system has provided Presidents and Secretaries of Defense with sound military advice, it is hard to demonstrate that this has not been the case. (Such an appraisal of the quality of advice should not be confused with whether civilian

leaders have *liked* the advice they have received.) Post-World War II history is strewn with examples where the military advice presented to the civilian leadership of the country now appears, in retrospect, to have been quite prudent. The Army's Chiefs of Staff consistently opposed military responses which risked a major land war in Asia, whether the episode was Dien Bien Phu (1954), Laos (1961) or North Korea (1969). The Joint Chiefs have consistently counseled against deep military involvement in countries where a civil war is underway, whether the situation has been the Congo (1965), El Salvador (1981) or Lebanon (1982). The Chiefs have consistently supported carefully defined and manageable applications of military power, such as in Cuba (1962), the Dominican Republic (1965) and Grenada (1983). The quality of military advice to civilians on the big security issues before the Government—the issues on which the fate of the nation turns—tends to confirm the wisdom of the current organizational structure.[16]

Advances in "Jointness" in the Current JCS System

A recurrent theme in the criticism of the current advisory system is that only the Chairman and the combatant commanders have the cross-service perspective necessary for unbiased inputs into the planning and resource allocation process. The service Chiefs are said to have an inherent role conflict between their joint responsibilities and their service responsibilities which prevents them from acting in the national interest. The answer to this problem is described as strengthening the formal authority of the Chairman and the CinCs and diminishing the authority of the service Chiefs in the planning and resource allocation process.

There is one basic danger in reducing the current role of the service Chiefs in the defense planning and resource allocation process. It would back out of the system the only actors who must now, because of their combined responsibilities, conduct global military planning within the felt limits and pressures of finite manpower, weapons and supplies. While the Chairman has a global perspective on the military threat, he has no day-to-day responsibility for squaring US strategy with the actual organizing, training and equipping of the armed forces. And while the Combatant Commanders have a cross-service perspective on operations in their geographic or functional area, they have a bias toward immediate capabilities at the expense of longer-term projects and they have a narrow view of what region or function is critical to national defense. Given the inherent limitations of all three perspectives—whether that of the Chairman, the service Chiefs or the CinCs—the objective of the joint system should be to maintain a balance of power among these three actors, not to give one an advantage over the others.

One of the paradoxes of the position taken by the advocates of major change is that their suggestions could actually widen, not narrow, the

"strategy-force mismatch" which concerns military planners. As the defense structure now exists the Joint Chiefs, who agree in "The Tank" on warfighting plans, can help translate these decisions into meaningful programs and operations by subsequently donning their other hats as the senior officers in their respective military services. They can directly insure that the recruiting, organizing, equipping and training of the armed forces support the national and military strategy. Should the service Chiefs be excluded from military planning and simply be handed military strategy by a powerful Chairman and Joint Staff, the chances for miscommunication, bureaucratic deadlock and service parochialism rise dramatically. Effectively intergrating military strategy and force structure under such a system would ultimately require stripping the military departments of their current budgeting and administrative responsibilities. An effort to do so would impose costs far in excess of any likely gains over the current "dual hatting" which helps integrate force employment with force structure.

It is the paramount need to reinforce the "jointness" of the Chiefs which makes the concept of a Deputy Chairman for the Joint Chiefs of Staff a bad idea. The current rotational designation of each service Chief as Acting Chairman for a three-month period insures that each member of the JCS sees the world through the Chairman's eyes and becomes conversant with those issues which might arise with the President, the Secretary of Defense, the National Security Council and the NSC staff. The Chiefs of the services have commented on how this responsibility has altered their perspectives on international issues. Even those who have advocated the concept of a Deputy Chairman agree that this new rotational procedure has increased JCS continuity, expertise and collegiality.[17]

One of the most perplexing aspects of current talk about service "parochialism" is the way critics have ignored major strides taken during the past three years to increase the level of joint planning, joint operations and joint resource allocation among the four services. Not surprisingly, those wedded to the proposition that only structural surgery can bring about "jointness" are disinclined to offer a list of such recent accomplishments by the military services. Therefore, a partial list of these recent steps in "jointness" is offered here:

Joint Doctrine Pilot Program. In October 1982, four months after he became Chairman, General Vessey initiated a Joint Doctrine Pilot Program for the purpose of identifying areas of overlapping warfighting doctrine, identifying the gaps and seams in existing doctrine, and initiating projects which would begin to fill these gaps and seams. After consulting with the Combatant Commanders, the Joint Staff identified four areas for the development of new warfighting doctrine:

- Follow-on-Forces Attack

- Theater Counter Air
- Tactical Air Support for Maritime Operations
- Strategic Air Support fot Maritime Operations

Despite the absence of new funding or additional manpower for these efforts, a number of positive outcomes have already begun to flow from the Joint Doctrine Pilot Program. It has stimulated an active interest in the development of joint doctrine at the highest levels of each military service. It has spawned worldwide consultation and coordination on doctrinal questions which is unique in American military planning. It has led the Navy to designate LantCom as its executive agent for interfacing with the other services and CinCs on issues of warfighting concepts, techniques, tactics and procedures. And it has begun to produce some new doctrinal products. The final document for Theater Counter Air should be in the hands of the Combatant Commanders by the end of 1985. First drafts of the doctrine for Follow-on-Forces Attack are now being distributed for comment.[18]

In sum, while members of the Joint and service staffs concede that there are still many very tough issues to be resolved, such as the precise authority of area-wide commanders relative to service components, there is general agreement that all of the services have made some significant compromises and that all of the service Chiefs want this project to succeed.

Navy-Air Force Memoranda of Agreement (MOA). In September 1982, at the same time General Vessey was initiating the Joint Doctrine Pilot Program within JCS, the Chief of Naval Operations and the Air Force Chief of Staff were initialing two Memoranda of Agreement designed to coordinate the operational activities of the two services in ten functional areas. Among those areas affected were antiair warfare, antisurface warfare, indications and warning, surveillance and targeting, command/control and communications, aerial minelaying and aerial refueling. These memoranda were signed because of recognition that the two services needed to increase their interoperability, joint training and mutual support if they were to maximize their warfighting effectiveness.

Unlike some earlier interservice agreements which have had little operational impact, the 1982 Navy-Air Force MOAs have significantly increased the operational "jointness" of the US armed forces. B-52 bombers have been fitted for delivery of sea mines and delivery of the Navy-developed Harpoon missile. The Air Force has allocated a fixed percentage of its tanker assets for refueling Navy aircraft. LantCom and PaCom require Navy pilots to be qualified to refuel from Air Force tankers before task forces and battle groups deploy. Joint doctrine is being written to improve the interface between such systems as Air Force AWACS and Navy E-2s. The exchange of Navy and Air Force pilots has been institutionalized at various training commands. The number of military exercises employing joint Navy-Air

Force assets has reached an unprecedented level. During 1984, USN-USAF systems jointly played in 65 of 111 JCS-directed or controlled exercises.

These initiatives have occurred because of continuing interest at the top of the two services. Several more functional Memoranda of Agreement have been signed since October 1982 on such subjects as B-52 delivery of sea mines, Air Force refueling support and B-52 delivery of Harpoon. Since January 1983 a Navy-Air Force MOA Steering Group of seven flag officers has met quarterly to review progress in implementing the various MOAs and to oversee the actions of ten working committees which were established at the staff level. Those familiar with these efforts are genuinely enthusiastic over the quantum improvement in USN-USAF cooperation in the last three years.[19]

The Chairman's Role in Resource Allocation/Strategic Plans and Resource Analysis Agency. Cross-service resource allocation is a function which the Joint Chiefs of Staff are said to be unable to conduct effectively because of their service-specific responsibilities. There is undoubtedly some truth to the observation that service Chiefs have been extremely reluctant to forgo various programs, but the Chiefs have countered that, this so-called "parochialism" was nothing more than a response to budget ceilings which were totally unrealistic in light of the number of US international commitments and the growing nature of the external military threat. Under such conditions, no service Chief could agree to cut his vital programs without sacrificing his professional judgment.[20]

Whatever the merits of this debate over the reasons for service behavior, it is somewhat irrelevant to the question of whether today's JCS system is adequate to provide the Pentagon's civilian leaders with resource allocation advice. Past history is of decreasing utility in answering this question because of three important changes made during the Reagan administration:

- Appointment of the Chairman of the Joint Chiefs of Staff to full membership on the Defense Resources Board which reviews the budget submissions of the Military Departments and Defense Agencies;
- The active use of the Chairman as an independent source of cross-service advice on service budgets and ongoing systems projects; and
- The creation of the Strategic Plans and Resource Analysis Agency (SPRAA) within the Organization of the Joint Chiefs of Staff (OJCS) to assist the Chairman and the other Chiefs in their resource allocation responsibilities.

As was observed in the previously cited colloquy between Senator Sam Nunn and Dr. David Chu, the Chairman of the Joint Chiefs now plays the same role in the Defense Department's resource allocation process that he has historically played at the White House. That is, he represents the views of the other Chiefs when he knows what these are but he also offers his own independent judgment whenever he wishes to do so. In the resource allocation

process, this function is being performed not only at the Defense Resources Board, chaired by the Deputy Secretary of Defense, but also through direct exchanges with the Secretary of Defense. The Chairman discusses resource questions with the Secretary both in his daily meetings with the Secretary and at the Secretary's Performance Reviews of major defense programs to which the Chairman is personally invited.[21]

Assisting the Chairman in this role as resource adviser is the new OJCS staff element of SPRAA. The Strategic Plans and Resource Analysis Agency was created in early 1984, and is now nearing its full complement of 28 officers, 9 civilians and 9 secretarial support personnel. Critics of the JCS system suggest that because SPRAA's formal charter describes it as assisting the *corporate* Joint Chiefs of Staff that it "lacks the ability to bring an independent cross-service perspective to bear" on planning and resource questions.[22] This criticism ignores, however, the equally important statement in SPRAA's charter that it "analytically and administratively supports the Chairman, Joint Chiefs of Staff, in his role as a member of the Defense Resources Board (DRB) and Defense System Acquisition Review Council (DSARC)."[23] Furthermore, those members of SPRAA who support the Chairman in his responsibilities at the DRB, DSARC and Secretary's Performance Reviews, clearly perceive themselves as working for the Chairman. The interchangeability between the Chairman and SPRAA is such that the two-star Director of SPRAA currently attends all DSARC meetings in place of the Chairman.

CinCs' Role in the Resource Allocation Process. The Reagan administration's major enhancement of the combatant commanders' participation in the DoD resource allocation process is another reason why past criticism of the JCS is tangential to current reality. Beginning in 1981, the Defense Resources Board began bringing each CinC to Washington twice a year to brief the members of the DRB. Their views were factored into preparation of the Defense Guidance in the winter and into the review of the defense program submissions during the summer. In some programmatic areas—such as airlift and sealift—the operational priorities of the CinCs had immediate impact on the shape of the defense budget.

The influence of the CinCs in the resource allocation process was further strengthened in November 1984 when the Deputy Secretary of Defense issued a memorandum directing that:

- Each CinC prepare a list of his prioritized needs, to be submitted directly to the Secretary of Defense, Deputy Secretary of Defense and the Chairman of the Joint Chiefs, at the beginning of the defense program cycle;
- Each CinC increase his interaction with the service components under his control, to ensure that program requests by these components reflect the CinCs' warfighting priorities;

- Military departments prepare a separate annex to their program submissions which indicates how they have satisfied the CinCs' prioritized requirements and the rationale for not meeting any of these stated needs; and
- Each CinC independently identify program issues for discussion at the DRB summer review rather than requiring CinCs to depend on the sponsorship of issues by full members of the DRB, as was the previous case.[24]

Obviously, it is too early to gauge the full impact of these recent procedural changes on the defense resource allocation process. But what they indicate is that the Defense Department has already taken major steps to increase the "jointness" of this process. The system is itself evolving toward the ideal balance of authority among the three perspectives of the Chairman, the service Chiefs, and the commanders of the unified and specified commands.

Joint Requirements and Management Board (JRMB). One of the important successes of increased "jointness" about which there has been almost no public discussion is the JCS-sponsored Joint Requirements and Management Board (JRMB), chartered in March 1984. This Board consists of the Vice Chief of each of the four services and the Director of the Joint Staff. It has been assigned the task of increasing and improving the joint development of weapons systems, or in the words of the JRMB's charter, "to provide for early linkup with the front end of the acquisition process in order to review potential system new starts for determination of joint program feasibility."[25] This is one of the resource allocation functions which critics say the current JCS system can never accomplish since it impinges directly on those military requirements and specific programs in which the services have a vested interest.

Has the JRMB accomplished anything in its first year of operation? To the surprise of many it has already achieved several things. In the area of Remotely Piloted Vehicles and tactical cruise missiles, 17 original service programs have been consolidated into 7 joint programs which, upon eventual completion, will have saved the Defense Department $4 billion in acquisition costs. In the increasingly important area of combat identification systems for beyond visual range engagements, the JRMB has pushed for joint acquisition and validation of the Mark XV IFF program. This will ensure interoperability not only among the four services but will also enhance interoperability with Nato allies. Requirement reviews are underway in a number of other areas—electronic warfare, C3, and tactical military deception—where security classification prevents public discussion of actual accomplishments.

More has been achieved than increasing military effectiveness and efficiency. A joint program review process has been institutionalized which defies the predictions of many. The Vice Chiefs who sit on the Board have created an atmosphere of mutual trust and confidence critical to continued success. When necessary, they have rejected service staff positions and opted

for the larger interest. On 1 April of this year, after a year of operation, the Board successfully navigated the transition from Army chairmanship to Navy chairmanship without any of the dire consequences predicted by skeptics of the process. The Board has consistently and effectively relied on SPRAA as the principal staff resource for its administration.[26]

Army-Air Force Memorandum of Agreement. In yet another illustration of interservice cooperation in the resource allocation area, the Army and Air Force Chiefs of Staff announced in May 1984 the signing of a Memorandum of Agreement (MOA) designed to improve coordination of the two services' missions, budget priorities and weapons acquisition programs. This MOA covered 31 specific areas of operational interface between the Army and Air Force, and it triggered the interservice transfer of several functions and the cancellation of several ongoing programs. At the joint press conference at which the Agreement was unveiled, Air Force Chief of Staff General Charles Gabriel said that the instructions given to the team which drew up the MOA were as follows: "Roles and missions are not the most important thing. The most important thing is how we can best do [our] job better . . . . Just take a clean sheet of paper and forget about what Service does what mission today . . . . What's the smartest approach; what's the most affordable approach?"[27]

All of the leaders responsible for the Army-Air Force MOA recognized at the time that this was only part of a larger, dynamic process in which services are slowly moving to coordinate their long-range planning. As a result of a subsequent memorandum exchanged among the Army, Air Force and Navy in October 1984, the Navy has now identified 11 of the original 31 items in the Army-Air Force MOA in which it has a particular interest. Points of contact have been established to begin Navy participation in these projects. Among the areas of particular Navy concern are munitions RDT&E, manned tactical reconnaissance systems, and combat search and rescue.[28]

The overall conclusions to be drawn from these recent advances in cross-service planning, programming and operations are, that claims of inevitable service "parochialism" are more germane to the past than the present, and that critics of the JCS system seem to be consciously ignoring considerable data on recent achievements. Those involved in these interservice enterprises frequently make one point, however. They believe the key to their success has been the collegial style of the Chairman and the other Chiefs of Staff, who have collectively supported these initiatives both inside and outside the Pentagon. In a planning and resource system as complex and decentralized as the American Government, any attempt to impose a similar level of cooperation through fiat would certainly fail. The current situation has demonstrated that there is no substitute for having the right people with the right style in the right places.

Conclusions

The data presented in this article support the following conclusions. External scrutiny of the Joint Chiefs of Staff by public and private entities *has* helped improve the procedures employed within the existing structure. It has encouraged an unusual amount of internal review by the Chiefs themselves. It has reinforced the goal of joint planning, programming and operations. And it has provided useful political support to those in the Pentagon wishing to increase "jointness."

But to believe that the improved performance of the current JCS system can be "institutionalized" and reduced to statutory print is a mirage. All the available research on governmental reorganizations, all of the controlled experiments on organizational leadership and performance, and all that we know about the actual operation of national security institutions at the highest level of the US Government suggest otherwise. The quality of military advice and military decisions made in the Pentagon will continue to turn on technical expertise and interpersonal relations, not formal authority and organizational charts.

The point to be recognized is that any Congressional effort to increase significantly the power of the Chairman of the Joint Chiefs of Staff beyond what he already enjoys *risks* excessive NCA dependency on a single source of military advice, and *risks* undermining the effective collegiality and jointness now present in the system. Given the totally uncertain and unlikely performance benefits to be gained from any formal reorganization of the Joint Chiefs of Staff, these risks are far too high a price to pay.

Notes

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Satellites for the Navy: Shielded by Arms Control?

George Bunn

The Navy relies increasingly on satellites. According to its 1985 Report to Congress, the Navy depends "today upon space-based systems to perform vital command and control, communications, navigation, environmental and surveillance functions. The Navy is by far the largest tactical user of space-based systems."

The shift toward satellites is described in the July-August 1984 issue of *Naval War College Review* in an excellent article called "Satellites at Sea: Space and Naval Warfare" by Louise Hodgden. Pointing out that Soviet-US naval competition is likely to be for control of sealanes much closer to the Soviet Union than to the United States, she concludes: "Soviet forces can operate linked to home bases by short lines of communication, but the United States must operate at the end of long lines of communication and supply. An ASAT [antisatellite] exchange that removed or degraded the space-based support systems of both sides would only emphasize this asymmetry and make the balance of forces even more unfavorable to the United States. Relative military advantages accrue to the US Navy with continued access to its satellites. Therefore, the best interests of the Navy may lie not in a race for space weapons, but in negotiations designed to ensure the continued viability of its other, more important space systems."

The negotiations to which this quotation refers would seek to limit American and Soviet ASAT weapon development through an arms control treaty. But in a March 1984 report to Congress on ASAT arms control, President Reagan concluded that "no arrangements or agreements beyond those already governing military activities in outer space have been found to date that are judged to be in the overall interest of the United States and its allies."[1] And his Science Adviser, George A. Keyworth II, called for a delay in any ASAT negotiations so that future research and development on the Strategic Defense Initiative (SDI or "Star Wars") would "not be blocked by a previous patchwork of obligations."[2]

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small, two-stage rocket and a miniature homing vehicle, both launched from an F-15 aircraft. Its first space tests were reportedly successful in targeting the rocket at a simulated target in space.[12] Unlike the fixed-base Soviet ASAT, it can be launched anywhere in the world where the aircraft can be flown. Its homing vehicle interceptor does not go into orbit but pursues its target and damages or destroys the target by direct impact. As with the Soviet ASAT, it would require another stage to attack targets above low-earth orbit; but Soviet ocean reconnaissance satellites designed to locate US Navy surface vessels are within its present range. In fact, the Soviet Union has more satellites in low-earth orbit (and in elliptical orbit with low perigee) than does the United States.[13] And since the American miniature homing vehicle is much smaller than the Soviet ASAT interceptor, it could be boosted to higher altitudes with less thrust should that become desirable. Both countries are doing research on the possible use of laser beams from the ground or from space to damage satellites in orbit.[14]

A new treaty against satellite interference might prohibit *first use* of these ASAT weapons against a rival state's satellites, but would not deal with the possession of ASATs for self-defense. If the Soviet Union attacked American satellites, the United States would then have available a weapon with which to retaliate against Soviet satellites. Thus, such an ASAT limitation treaty would not prevent a retaliatory response to a violation by another state. It would instead codify with more precision what is now accepted by most states as international law, while permitting effective self-defense.

Banning ASAT Testing or Deployment in Space. A larger step toward preventing a space arms race would be a treaty limiting *testing* or *deployment* of ASATs. Possible testing limitations were also considered in the 1978-79 American-Soviet negotiations, but no agreement was reached.[15]

The 1983 Soviet draft ASAT treaty would prohibit testing of both "space-based weapons" for destroying objects in space and "new" antisatellite systems.[16] A first reading of this language suggests that the Soviets could continue testing their ASAT because it is neither "new" nor "space-based." Based on the same language, the Soviets would apparently ban testing of the American ASAT as "new" even though it is not "space-based." Probably ground-based laser systems being researched by both sides would be called "new" and therefore prohibited.

The Soviet draft does not limit its ban on testing to space, where verificatiou is likely to be easier than on land. But a "counter draft" has been offered by an unofficial American group including Nobel Physics Laureate Hans Bethe, IBM Fellow Richard L. Garwin, former Deputy CNO for Research and Development Admiral Noel Gayler, USN (Ret.), former State Department Legal Adviser Leonard C. Meeker, former CIA Deputy Director Herbert Scoville, and other experts gathered together by the Union

of Concerned Scientists. Their counterdraft would ban all further tests "in space or against space objects" (that is, testing *in* space or *from* the ground, sea or air "against" objects in space). The weapons which could not be tested would be those for destroying, damaging, or rendering satellites inoperable, or for changing their flight trajectory. The restriction to tests "in space or against space objects" was made in part to improve chances of detecting cheating; monitoring tests in space is likely to be easier than on the ground. At the same time, the draft would not attempt to permit American ASAT tests while denying those of the Soviet Union. In essence, it would be a "no-new-types" treaty leaving the Soviet Union and the United States with their existing ground-based ASATs effective only in low-earth orbit.[17]

In addition to limiting testing, both of these drafts propose agreement not to deploy ASATs in space. Again, however, there are differences in defining the ASATs and deployments which are to be limited.[18] In any event, the deployment provisions are probably much less important than those dealing with testing.

There are relevant limitations on testing and deployment in existing treaties. *First*, the Limited Test Ban Treaty prohibits nuclear explosions in space. Such an explosion could destroy or damage satellites, and has been considered for an ASAT weapon.

Second, in the Outer Space Treaty, parties agreed "not to place in orbit around the Earth any objects carrying nuclear weapons or any other kind of weapons of mass destruction. . .or station such weapons in outer space in any other manner." "Space mines" containing nuclear weapons in orbit near a rival's satellites would be included in this language. So would an x-ray laser pumped by a nuclear explosive device which was stationed in space. Both are possible ASATs.[19]

Third, the ABM Treaty prohibits field testing of strategic ABM systems which are sea-based, air-based, space-based or mobile land-based. A potential ABM system will likely have an ASAT capability because satellites in space are generally easier to shoot down than ballistic missiles. Satellites are likely to be more fragile than missiles or reentry vehicles, and they remain in space for weeks, months or years rather than minutes. Yet, some ASAT weapons could also have ABM capability.

ASAT systems and their components are not prohibited, as such, by the ABM Treaty. Testing of ASAT interceptor missiles or launchers or ASAT radars is prohibited only "in an ABM mode." Similarly, an ASAT or its components may not be given the capability "to counter strategic ballistic missiles in flight trajectory." But testing of ASATs against satellites instead of missiles is not prohibited.[20] Neither Soviet ASATs (as tested since 1968) nor US ASATs (as tested in 1984) could counter a strategic ballistic missile except if—in time of crisis—they happened to be in place near where the missile would be passing. But the technology that is necessary to intercept a satellite

can also be applicable to missile interception.[21] And, the ABM Treaty prohibition on field tests of space-based, air-based or sea-based ABM systems or components applies whether the kill mechanism is impact, high explosives, pellets, nuclear weapons, lasers or high-energy particle beams.[22]

Fourth, the ABM Treaty would prevent deployment of an ASAT on the ground, at sea, in the air or in space only if it could "counter strategic ballistic missiles or their elements in flight trajectory . . . ."[23]

The rub for both sides in any new ASAT Treaty might well be a ban on testing. Tests of new sea-based, air-based or space-based weapons technology against satellites in space could provide very useful information in developing ballistic missile defenses. A state planning to abrogate the ABM Treaty, in order to test ballistic missile defenses (BMD) against missiles, could delay doing so until its potential BMD device was first tested against satellites. As long as the device was only tested against satellites, the opposition would likely not know what its capability against ballistic missiles was. Upon completion of successful tests against satellites, the side doing the testing could break out of the ABM Treaty and be ahead—assuming the other side had not followed the same course. Since the ABM Treaty does not prohibit ASAT testing in space unless the ASAT or its components can "counter strategic ballistic missiles or their elements in flight trajectory . . . ," are "components" which contribute to such capability or are tested "in an ABM mode," ASAT testing in space against satellites could be conducted without violating the ABM Treaty.

The overlap between ASAT and ballistic missile defense technology is striking.[24] Miniature homing vehicles such as that used in the American ASAT are also being considered for possible use in midcourse interception of missiles and even for their boost-phase interception.[25] A current view is that this vehicle is "the most fully developed potential BMD weapon" of the new technologies being studied by the United States.[26]

Space laser technology, according to Secretary of Defense Weinberger "could perform a variety of missions, such as antisatellite or ballistic missile defense."[27] The Soviet Union is experimenting with land-based lasers with potential ASAT capability and space-based lasers with potential ASAT and BMD capability.[28] Dr. Keyworth, the President's Science Adviser, has advocated an American demonstration of a ground-based ASAT laser reflected against a large mirror in geosynchronous orbit as a first step toward a space-based BMD system: "It may not necessarily be the best way for the ASAT mission, but a geosynchronous antisatellite capability is important to test the technology to destroy missiles."[29] A proposed American space-object radar tracking system called Talon Gold can be used for tracking both satellites and ballistic missiles.[30] These technologies could well be tested

against satellites without appearing to violate the ABM Treaty—until their capability as part of a space-based BMD system became evident.

A new ban on ASAT space testing could thus limit early field testing of space-based, air-based or sea-based ballistic missile defense technologies, testing which might otherwise be permissible only by withdrawal from the ABM Treaty. It could add significantly to the "patchwork" of treaties limiting the development of a ballistic missile defense. By the same token, it could plug a growing loophole in the ABM Treaty. While the Limited Test Ban and Outer Space Treaties preclude testing or deployment in space of ASATs using nuclear explosions, the new high-energy technologies (excepting x-ray lasers) do not rely upon nuclear weapons. For these, the ABM Treaty is the significant limitation. An ASAT test ban which plugged an ABM Treaty loophole could thus have significance for BMD development as well as ASAT development.

Verification of ASAT Limitations

One of the problems involved with any ASAT limitation treaty is defining what kinds of weapons have "ASAT capability." The President's March 1984 report to Congress says this phrase "relates to all systems capable of damaging, destroying or otherwise interrupting the functioning of satellites." Besides lasers, and the existing American and Soviet ASATs, there are many devices having some such capability:

- Maneuvering spacecraft such as the American Space Shuttle or the Soviet Progrez which serves the Soviet Soyuz space platform. These can capture or impact a satellite.
- Electronic jamming countermeasures which can blind a satellite's sensors.
- Directed energy particle beams which have sufficient power to damage satellites.
- "Space mines" stationed near a rival's satellites awaiting a possible "D-day" when they would be exploded by signal from Earth.[31]

Assume that all of these devices except the American Space Shuttle and Soviet Progrez-Soyuz spacecraft are regarded as ASATs. Assume that an ASAT Treaty bans only interference with satellites in space, deployment of ASATs in space and testing of ASATs in space or against objects in space. The most important and most difficult verification task will then probably concern the ban on testing.

Verifying a noninterference ban—at least determining whether American satellites have been damaged or destroyed by hostile action—seems possible.[32] Additional sensors can be added to our satellites to deal with problem cases.[33] For the moment, only the Soviet Union has sufficient space capability or motive to take hostile action against our satellites. In any event, a ban on

interference does not go far beyond existing international law, including the ABM Treaty. We already have the problem of detecting violations of that law, whether or not we sign a new noninterference ban.

In the case of a ban on deployment of ASATs in space, some monitoring is also possible. The North American Defense Command has the ability to detect objects one foot in diameter at 23,000 miles in space, though it sometimes cannot identify what their functions are because it cannot see inside them.[34] Yet we live today with an Outer Space Treaty ban on stationing nuclear weapons in space.

If neither the Americans nor the Soviets have to destroy their existing ASATs, the need to be sure that a low-altitude Soviet satellite has no explosive inside may not be that important because a retaliatory response to an ASAT attack would still be possible. And the new treaty would not require us to know how many Soviet ASATs exist on the ground because each side would be permitted to keep its existing ASATs (and build more of the same type).

The most important verification problem would probably deal with the most significant limitation: an ASAT test ban. The President's 31 March 1984 report to Congress on ASAT arms control said: "The fact that ASAT capabilities are inherent in some systems developed for other missions or are amenable to undetected or surreptitious development makes it impossible to verify compliance with *a truly comprehensive* testing limitation that would eliminate tests of all methods of countering satellites. Test bans for *a more limited class* of ASAT systems may be verifiable . . . ." (Emphasis added.)

As indicated above, the Bethe-Garwin group proposed a ban on ASAT tests only "in space or against space objects" rather than attempting to prohibit all relevant tests everywhere. They defined an ASAT in much the same way as the President's report does, except that they took pains to exclude devices such as the American Space Shuttle and Soviet Soyuz space platforms. These are not "weapons for" attacking satellites. They listed the following verification tasks for their proposed "no-new-types" ASAT Treaty (including the noninterference, no-deployment and no-testing limitations described above): "The U.S. would have to confirm that the existing Soviet ASAT interceptor was not being tested in space; that no new ASAT weapons were being devised and tested in space or against space targets, including such new exotic ASATs as ground- or air-based lasers that could be aimed at low-orbit satellites; that weapons originally designed and deployed for other missions were not being tested in an ASAT mode and that non-weapon space vehicles and programs were not posing significant ASAT threats."[35]

After a lengthy discussion of these tasks and how they could be carried out, the group concluded that there were no obvious reasons why the treaty could not be adequately verified: "There may be some areas of uncertainty, but not

so great as to permit the Soviets to pose a significant, unanticipated threat to US security if we take prudent steps toward improving intelligence capabilities and diversifying and protecting vital satellite functions."[36]

The United States already monitors space testing to verify Soviet compliance with the ABM Treaty's prohibition on field testing of ABM systems which are "sea-based, air-based, space-based or mobile land-based." It also monitors Soviet missile tests for both verification and intelligence purposes. It has followed field testing of the Soviet ASAT since 1968. What is proposed would add to existing monitoring responsibilities—but not radically.[37]

ASAT National Security Threat With and Without a Treaty

The President's 31 March 1984 report to Congress on ASAT arms control concluded that no new treaty arrangements have been found to date which were in the overall interest of the United States and its allies. But it described a continuing search for "selected limits on specific types of space systems or activities in space" which might be in our interests. It raised numerous difficulties including particularly the problems of defining what ASAT capabilities to limit, and of verifying whatever limits are chosen. Both these difficulties are discussed above. Then it listed other specific national security considerations.

High on this list was the Navy's concern about Soviet surveillance satellites: "These include ocean reconnaissance satellites which use radar and electronics intelligence in efforts to provide targeting data to Soviet weapon platforms which can quickly attack U.S. and Allied surface fleets . . . . A *comprehensive* ASAT ban would afford a sanctuary to existing Soviet satellites designed to target U.S. naval and land conventional forces. The absence of a U.S. ASAT capability to prevent Soviet targeting aided by satellites could be seen by the Soviets as a substantial factor in their ability to attack U.S. and allied forces and might offset Soviet concerns about the effectiveness of U.S. and allied naval warfare capabilities." (Emphasis added.)[38]

As the report makes clear, these are among the fundamental reasons the United States seeks an ASAT. According to President Reagan's July 1982 National Space Policy: "The primary purposes of a United States ASAT capability are to deter threats to space systems of the United States and its Allies and, within such limits imposed by international law, to deny any adversary the use of space-based systems that provide support to hostile military forces."

The treaty proposed by the Bethe-Garwin group would leave both sides with the low-orbit ASAT capability they had when it went into effect. Both could continue to deploy their existing nonlaser ASATs. Assuming the US

ASAT had by then the ability to damage or destroy Soviet ocean reconnaissance satellites (they are within its intended range), the deterrence difficulty perceived in the President's 31 March 1984 report should be much reduced. And the United States could then respond in kind to a Soviet satellite attack. Moreover, existing capability to jam or spoof Soviet reconnaissance satellites by electronic means may be considerable. At the same time, the United States could continue to enhance the survivability of its own satellites against electronic jamming, laser beams, etc.[39]

What may be realistic as an arms control measure is a no-new-types sort of treaty such as the Bethe-Garwin group proposes. It would leave the Soviet Union and the United States each with an ASAT effective at low-earth orbits, assuming US testing produced such capability by the time a treaty became effective or testing at relatively low altitudes was permitted to continue. Early warning, C^3, NAVSTAR, MILSTAR and nuclear-explosion-detection satellites at high altitudes would then be immune from attack—if the treaty worked. The testing ban would limit development of ASAT weapons with greater capability, including lasers and other technologies which might damage or destroy satellites in high orbits.

Without any treaty, both sides will surely compete for better and better ASATs and, of course, for countermeasures. Unless the United States is confident that it can remain ahead indefinitely, an unrestrained ASAT competition offers little advantage—except that we (and the Soviets) can test some potential BMD technologies in space against satellites without abrogating the ABM Treaty first.

The post-World War II competition with the Soviet Union offers little comfort for either side that it can remain ahead of the other for very long. Early Soviet space advantages revealed in 1957 by the first long-range missile test and the first satellite were soon countered by the United States. American advantages through the invention of nuclear weapons, early deployment of major sublaunched ballistic missile and ICBM systems, and first development of MIRVs, were soon countered by the Soviets.

With a "no-new-types" treaty, US satellites in high orbits would still not be entirely safe. No verification system can be totally "rascal proof," to use the late Senator Jackson's term. And some development is possible without testing in space or against space objects.[40] Neither side would be limited in the number of ASATs using existing technology which it built. But a treaty would slow development and permit greater time to detect and counter advances made by the Soviets.[41]

Conclusion

For many, the most persuasive argument against a no-new-types treaty is that it would prohibit those ASAT tests which could contribute significantly

to development of a strategic defense against ballistic missiles.[42] There are at least two ways, however, in which an ASAT arms control treaty might meet this argument. The first would be simply to strengthen the existing law prohibiting interference by one state with the satellites of another, rather than attempting any ban on tests or on deployment. In addition to codifying noninterference further, as attempted in the 1978-79 ASAT negotiations, specific "rules of the road" for space could be considered. Following the model of the U.S.-Soviet Incidents at Sea Agreement, a noninterference treaty could include, for example, "prohibition of close high-speed passes or passes in geosynchronous orbit by satellites or spacecraft near the satellites of the other superpower. These actions could give rise to fears of imminent destruction of satellites by ASAT weapons as a prelude to a surprise attack. Close passes will obviously appear particularly threatening in the absence of an ASAT ban."[43]

A second method would be to make an ASAT test ban applicable only above an agreed altitude, say 2,500 kilometers. The idea would be to permit continued testing at altitudes where tests have already been conducted by one side or the other, but no higher. This would permit field tests by both sides of their existing ASATs, neither of which has apparently been tested above 2,500 kilometers.[44] But it would prohibit testing of ASATs against satellites in high, geosynchronous orbits.

Both US and Soviet existing ASATs might be made effective against satellites in high orbits by the addition of another rocket stage. Lasers might also. A high-altitude test ban would prohibit testing of such ASATs at the altitude for which they were designed, reducing confidence in their effectiveness at high altitude and making their deployment and use less likely. It would, of course, permit testing of advanced-technology laser ASATs at low altitudes. Unlike current direct-impact ASATs, this might be sufficient to indicate the probable effectiveness of the laser ASAT against satellites in geosynchronous orbits.[45] If so, a high-altitude test ban might have less long-term value in protecting geosynchronous satellites than a ban on tests at all altitudes in space.

Assuming, however, this was not the case, how would a high-altitude ban affect the navies of the United States and Soviet Union? As indicated in the President's March 1984 report on ASATs, the Soviets' radar and electronic ocean reconnaissance satellites used for targeting US surface vessels are the US Navy's most important concern about an ASAT treaty.[46] These satellites orbit at low altitudes where they would be vulnerable to an effective US ASAT if a war were waged at sea with the Soviets. A ban on ASAT tests at high altitudes would permit the United States to complete testing of a low-altitude ASAT to deal with this threat. (By the same token, the Soviets could test an advanced technology satellite to deal with American ocean reconnaissance satellites which are also in low orbit.)

The United States is increasingly placing heavy reliance on high-altitude, geosynchronous or semisynchronous satellites. Probably of greatest importance to the Navy are the newer C^3, navigation, weather, and early warning satellites which are or soon will be in geosynchronous or semisynchronous orbits.[47] These would have greater protection from Soviet attack with a high-altitude test ban than without, though they might not be invulnerable from some sorts of attack in the future—for example by ground-based lasers or nuclear explosions at very high altitudes—even in the absence of high-altitude testing.

By the same token, however, a high-altitude test ban treaty would not limit SDI research any more than the ABM Treaty already does. As a Pentagon scientific witness on SDI has made clear: "The SDI research program would not be affected by limits on high altitude ASAT systems."[48]

Assuming that verification of a high-altitude test ban was effective, the Soviets would be subject to the same limits as the United States. While a smaller proportion of Soviet satellites uses high orbits than is the case for the United States, the Soviet Union has recently tested communications, early warning and meteorological satellites in such orbits.[49] On balance, a treaty affording greater protection to high-altitude space assets might be attractive to both sides. Such a treaty "would allow both sides to keep and test their current low-orbit antisatellite weapons, but it would forbid the development and testing of all weapons which could reach satellites in geosynchronous orbits. In such a situation, satellites which are important to conventional military operations [e.g., ocean reconnaissance satellites] would be at risk, but those that are crucial to the strategic forces would still be secure [e.g., C^3, missile-launch early warning, advanced navigation for ballistic missile submarines]."[50]

In the US-Soviet arms control talks begun in Geneva in 1985, ASATs are again on the table. The Soviets proposed, among other things, a moratorium on research, testing and deployment of "space-strike arms." Their principal objective appeared to be to stop the US SDI research program, but their proposal covered ASAT systems.[51] US criticism, according to Paul H. Nitze, Special Adviser to the President and Secretary of State on Arms Control, included the following: "Even were we to find a way to ban the declared [existing] U.S. and Soviet ASAT systems, most satellites would still be vulnerable to attack, especially by nuclear weapons. The existing Soviet Galosh ABM interceptors deployed around Moscow are capable of attacking low-orbiting satellites, which pose much easier targets than do ballistic missile warheads."[52]

Quantitatively, most satellites on both sides are not in geosynchronous orbit. But, as indicated above, the key new US navigation, C^3 and early-warning satellites are or soon will be. Because of their long distance away from Earth, they are likely to be easier to protect from a variety of possible

threats, with or without a high-altitude test ban. As Nitze states, however, they would not be completely invulnerable. Either the United States or the USSR might be able to use nuclear-armed interceptors as high-altitude ASATs. With a nuclear explosion as the kill mechanism, accuracy and high-altitude space testing might well be less important. But the use of such weapons would also have serious disadvantages: "It would breach the nuclear threshold at a critical moment, and it would generate an electromagnetic pulse that could disrupt one's own communications system."[53]

In my view, nuclear attacks on high-altitude satellites are unlikely, at least short of a major nuclear exchange. Nonnuclear ASATs are a more likely threat in a smaller battle. A ban on ASAT tests at high altitude would inhibit development of nonnuclear ASATs capable of attacking satellites in geosynchronous orbit. Both sides could likely be better off as a result.

Notes

1. US President, *Report to the Congress on U.S. Policy on ASAT Arms Control*, 31 March 1984.

2. *Strategic Defense and ASAT Weapons*, Hearings before the Senate Committee on Foreign Relations, 25 April 1984, p. 12.

3. This and later treaties quoted in this article (except for the UN Charter) can be found in US Arms Control and Disarmament Agency, *Arms Control and Disarmament Agreements*, 5th ed. 1982.

4. Arts. 2(4) and 51.

5. See, e.g., N.M. Matte, *Space Activities and Emerging International Law* (Montreal: McGill University, CRASL, 1984), pp. 249-274, 402-419; G. Bunn, "Legal Context of Arms Control Verification," D. Hafemeister and K. Tsipis, eds., *Technical Means of Verification of Arms Control Treaties* (to be published in 1985); A. Chayes, "An Inquiry into the Workings of Arms Control Agreements," *Harvard Law Review*, 1972. v. 85, pp. 905, 952; Carnegie Panel on U.S. Security and the Future of Arms Control, *Final Report, Challenges for U.S. National Security*, 1983, pp. 41-42; UN Secretary General, *Study on the Implications of Establishing an International Satellite Agency*, UN Doc. A/AC. 206/14, 6 August 1981, p. 64; I.A. Vlasic, "Disarmament Decade, Outerspace and International Law," *McGill Law Journal*, 1981, v. 26, pp. 135, 167-180.

6. Bunn; Carnegie Panel.

7. W. Slocombe, "Approaches to an ASAT Treaty" B. Jasani, ed., *Space Weapons—The Arms Control Dilemma* (Philadelphia, Pa.: Taylor & Francis, 1984), pp. 145, 149; see also testimony of Amb. R.W. Buchheim in *Arms Control and Militarization of Space*, Hearings before the Subcommittee on Arms Control, Oceans, International Operations and Environment of the Senate Committee on Foreign Relations, 20 September 1982, pp. 44-45; R.L. Garwin, K. Gottfried and D.L. Hafner, "Antisatellite Weapons," *Scientific American*, June 1984, pp. 45, 52-53.

8. See, e.g., Soviet draft *Treaty on the Prohibition of the Use of Force in Outer Space and From Space Against Earth* submitted to the UN Secretary General, 19 August 1983.

9. US Dept. of Defense, *Soviet Military Power*, 2d ed. (Washington: US Govt. Print. Off., 1983), p. 67; N.L. Johnson, *The Soviet Year in Space: 1983* (Huntsville, Ala.: Teledyne Brown Engineering), p. 37; Garwin, Gottfried and Hafner, pp. 47-49.

10. Garwin, Gottfried and Hafner, p. 49.

11. *Ibid.*, pp. 46, 49; Louise Hodgden, "Satellites at Sea: Space and Naval Warfare," *Naval War College Review*, July-August 1984, pp. 31-43; C.S. Gray, "The Military Uses of Space," *Survival*, September-October 1983, pp. 194, 196-198; H.A. Bethe, R.L. Garwin et al., *Anti Satellite Weapons: Arms Control or Arms Race?* (Cambridge, Mass.: Union of Concerned Scientists, June 1983), p. 43. Much of this last piece is also printed in *Controlling Space Weapons*, Hearings before the Subcommittee on Arms Control, Oceans, International Operations and Environment of the Senate Committee on Foreign Relations, 14 April and 18 May 1983, pp. 115-129.

12. C.A. Robinson, Jr., "U.S. Spurs Strategic Weapon Advances," *Aviation Week & Space Technology*, 12 March 1984, pp. 23, 41; Garwin, Gottfried, and Hafner, p. 50.

13. Bethe, Garwin et al., pp. 42-43.

14. US Dept. of Defense, pp. 67-68; Johnson, pp. 37-38; *Controlling Space Weapons*, pp. 2, 100; Garwin, Gottfried and Hafner, p. 50.

15. Slocombe, pp. 149-150; US President, p. 2; cf. Testimony of Amb. Buchheim; D.L. Hafner, "Averting a Brobdingnagian Skeet Shoot," *International Security*, Winter 1980/81, pp. 41, 53-56.

16. See Soviet draft.

17. See Bethe, Garwin et al., pp. 115-129; D.L. Hafner, "Outer Space Arms Control: Unverified Practices, Unnatural Acts?" *Survival*, November-December 1983; Garwin, Gottfried and Hafner.

18. The Soviet draft would appear to prohibit deployment anywhere of "space-based weapons for the destruction" of space objects and require destruction of "any antisatellite systems." The Bethe-Garwin group's draft deals with weapons which can damage or interrupt the functioning of space objects as well as destroy them; it would ban deployment of such ASATs only in space. These differences have a significant impact on the possibilities for verification.

19. Hafner, "Averting a Brobdingnagian Skeet Shoot," p. 44; R.L. Garwin and J. Pike, "Space Weapons, History and Current Debate," *Bulletin of the Atomic Scientists*, May 1984, pp. 2S, 8S; A.B. Carter, *Directed Energy Missile Defense in Space* (Washington: US Govt. Print. Off., 1984), pp. 47-48.

20. ABM Treaty Art. VI (a); Letter of 10 June 1972 from Secretary of State Rogers forwarding the ABM Treaty to the President for transmittal to the Senate, *Communication from President Nixon*, House Doc. no. 311, 92d Cong., 1st Sess., 1972, p. 10, reprinted in *Controlling Space Weapons*, pp. 64-68; US President, *FY 1984 Arms Control Impact Statements* submitted to Congress, April 1983, pp. 131-134, 265-267; G. Schneiter, "The ABM Treaty Today," A.B. Carter and D.N. Schwartz, eds., *Ballistic Missile Defense* (Washington, DC: Brookings Institution, 1984), pp. 221, 227-230; T.K. Longstreth, J.E. Pike and J.B. Rhinelander, *The Impact of U.S. and Soviet Ballistic Missile Defense Programs on the ABM Treaty* (Washington, DC: National Campaign to Save the ABM Treaty, 1985), pp. 9, 33-34, 75-76; US Dept. of Defense, *Report to the Congress on the Strategic Defense Initiative*, 1985, pp. B-5, B-8.

21. Gray, pp. 198-199; Carter, pp. 47-48; Garwin, Gottfried, and Hafner, p. 50; H.A. Bethe et al., *Space-Based Missile Defense* (Cambridge, Mass: Union of Concerned Scientists, March 1984), pp. 73, 84-85; Longstreth, Pike and Rhinelander, pp. 33-34.

22. US President, *FY 1984 Arms Control Impact Statement;* Schneiter, pp. 227-228; and see note 20 generally.

23. Schneiter, pp. 223-224; M.L. Smith, "Legal Implications of a Space-Based Ballistic Missile Defense," *California Western International Law Journal*, 1985, v. 15, pp. 52, 68.

24. See authorities cited in note 21 above; D. Kerr, "Implications of Anti-Satellite Weapons for ABM Issues," B. Jasani, ed., p. 107.

25. Garwin, Gottfried and Hafner, p. 52; Bethe, Garwin et al., p. 18; Bethe, et al., pp. 30-31, 34, 57, 68; Carter, pp. 32-38.

26. Bethe et al., p. 68; see also D. Graham, *High Frontier—A New National Strategy* (Washington, DC: High Frontier, April 1982).

27. Secretary of Defense Weinberger, *FY 85 Annual Report to Congress* (Washington: US Govt. Print. Off., February 1984), p. 263; see also Garwin, Gottfried and Hafner, p. 50; C. Robinson, Jr., "Shuttle May Aid in Space Weapons Test," *Aviation Week & Space Technology*, 31 October 1983, pp. 74, 76-78.

28. Dept. of Defense, pp. 67-68; Testimony of Deputy Secretary of Defense Ikle in *Controlling Space Weapons*, p. 100.

29. C. Robinson, Jr., "Beam Weapon Advances Emerge," *Aviation Week & Space Technology*, 18 July 1983, p. 21.

30. Secretary of Defense Weinberger, *FY 1984 Annual Report to Congress* (Washington: US Govt. Print. Off., 1983), p. 272; Bethe et al., pp. 75, 84-85; Robinson, pp. 76-78; Weinberger, *FY 85 Annual Report to Congress*, p. 263.

31. US President, *Report to the Congress on U.S. Policy on ASAT Arms Control*, p. 6.

32. Bethe, Garwin et al., pp. 23-28; Hafner, "Averting a Brobdingnagian Skeet Shoot," p. 58; but cf. US President, *Report to the Congress on U.S. Policy on ASAT Arms Control*, p. 14.

33. Hafner, "Averting a Brobdingnagian Skeet Shoot," p. 58.

34. *Ibid.*, p. 57; Bethe, Garwin et al., p. 24; Testimony of ACDA Director Adelman in *Controlling Space Weapons*, p. 80.

35. Bethe, Garwin et al., p. 24.

36. *Ibid.*, p. 28; see also R.L. Garwin, "ASAT Treaty Verification," in Hafemeister and Tsipis, eds.; M.S. Smith, *Antisatellites (Killer Satellites)*, Library of Congress Congressional Research Service Issue Brief No. IB1123, 22 August 1983; Hafner, "Averting a Brobdignagian Skeet Shoot," p. 58; Hafner, "Outer Space Arms Control: Unverified Practices, Unnatural Acts?" pp. 245-247; responses to additional questions of Senate Foreign Relations Committee to Garwin, Gayler and Gottfried in *Controlling Space Weapons*, pp. 163-165; *Congressional Record*, v. 130, no. 69, 23 May 1984, p. H 4728.

37. Garwin, Gottfried and Hafner, pp. 53, 55.

38. US President, *Report to Congress on U.S. Policy on ASAT Arms Control*, p. 7.
39. Bethe, Garwin et al., pp. 21-22.
40. See Testimony on Deputy Secretary of Defense F.C. Ikle in *Controlling Space Weapons*, p. 109.
41. Garwin, Gottfried and Hafner, p. 55.
42. See text at notes 2 and 23-30.
43. S.M. Lynn-Jones, "A Quiet Success for Arms Control: Preventing Incidents at Sea," *International Security*, Spring 1985, pp. 154, 183.
44. Garwin, Gottfried, and Hafner, pp. 45, 49, 67, 50.
45. John Tirman, ed., *The Fallacy of Star Wars* (New York: Vintage Books, 1984), pp. 242-243, 259.
46. See text at note 38 above; Garwin, Gottfried, and Hafner, pp. 51-52.
47. Hodgden, pp. 32-34, 38-39, 43; Garwin, Gottfried and Hafner, pp. 47-49, 51-52; Jasani, Tab. 1 and App. 1.
48. Department of Defense Authorization for Appropriations for Fiscal Year 1985, *Hearings Before the Committee on Armed Services*, 98th Cong., 2d Sess., Pt. 7, 12 April 1984, p. 3564.
49. Jasani, App. 1.
50. Garwin, Gottfried and Hafner, p. 52.
51. P.H. Nitze, "Arms Control: The First Round in Geneva," an address before the National Press Club, US Dept. of State, Bureau of Public Affairs, Current Policy No. 698, 1 May 1985. pp. 2-3.
52. *Ibid.*
53. Garwin, Gottfried and Hafner, p. 47.

What Wargaming is and is Not

Peter P. Perla
Lieutenant Commander Raymond T. Barrett, US Navy

The term wargaming has been defined in many ways. In its broadest application, it is used to describe any type of warfare modeling, including simulation, campaign and systems analysis, and military exercises. A more restricted and more useful definition is that wargaming is any type of warfare model or simulation, not involving actual military forces, in which the flow of events is affected by decisions made during the course of those events by "players" representing the opposing sides. This definition includes not only the training and research games conducted at the Naval War College but also encompasses a much wider variety, from the Global War Game series with its hundreds of participants to small one- or two-person manual or tabletop games and their microcomputer derivatives.

What wargaming is not is often even less obvious than what it is. Firsr and foremost, wargaming is not analysis in the usual sense of rigorous, quantitative, dissection of a problem. Nor is wargaming real, despite the similarities of gaming language and the gaming experience to many aspects of actual operations. A war game is not duplicatable—one cannot refight a game changing only the random numbers. In essence wargaming is an exercise in human interaction, and the interplay of human decisions and the outcomes of those decisions makes it impossible for two games to be the same. As a result of such factors, war games are not universally applicable to defense problems; the less important human decisions and the more important physical or technical parameters, the less relevant is wargaming.

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Lieutenant Commander Barrett is a graduate of the US Naval Academy. He has served with the Office of the Joint Chiefs of Staff and has been a member of the Operational Studies Group assigned to the Center for Naval Analyses for the past three years. He has authored several articles for the Naval Aviation Safety Magazine, *MECH* and the Naval Institute *Proceedings*.

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The Elements of a War Game

A good war game must be structured to help human players make decisions, and to allow them to learn about the effects of those decisions. There are six key elements in such a structure:

- Objectives
- Scenario
- Data base
- Models
- Rules, procedures, umpires
- Players.

A war game must have a clearly defined and clearly stated set of objectives. In specifying objectives, game sponsors, designers, and analysts must clearly identify how and in what ways the game can provide the type of information needed to achieve those objectives. The objectives should be as specific as possible, to allow the game design to focus on those elements critical to the collection of such information. The definition of objectives should be the principal "driver" of a war game's entire structure.

The scenario sets the stage for the game, placing players in the situation with which they must deal. The scenario can have a significant, if not overwhelming, effect on the decisions players are able to make. As a result, the game designer must carefully determine how the scenario may affect the factors he is most interested in exploring. Detailed scenario descriptions should ensure that players understand these factors and how they arose so that they are able to comprehend how the underlying assumptions may affect their scope for decisionmaking.

The data base contains the information players may use to help them make decisions. Typically, this information includes forces available, some measure of their capabilities, physical or environmental conditions, and other technical facts. Because of its importance to decisionmaking, the data base must clearly and concisely present the information players would reasonably have available to them in an actual situation, and in a manner readily accessible for their use during play.

The fourth element of a war game is a set of models, usually mathematical expressions, which translate data and decisions into game events. Models must be flexible enough to deal with unforeseen player decisions. They should be designed to allow the data base to change without requiring major changes to the models themselves. Their mechanisms should accurately reflect those factors most important to the decisionmaking levels represented by the players. As much as practicable, the question of whether a model will depend on random numbers should be driven by the underlying process. Just as real battles are affected by chance, game battles should sometimes reflect the role of luck in executing any operation, and report on those effects.

In addition to models, a game must have a set of rules and procedures—typically monitored in large games by a team of umpires—to define what players can and cannot do and why. These procedures help to sequence game events, allowing for accurate chains of cause and effect. Game procedures are also responsible for ensuring that players receive the appropriate quantity and quality of information during play, and introducing error and delay to simulate the "fog of war."

Finally, and most importantly, a war game must have players, whose decisions affect and, in turn, are affected by the flow of events. A game is most effective when the players are cast in operational roles and are given the information and responsibility required to make the decisions appropriate to those roles. Because learning from a game requires an understanding of why players make decisions, thorough player understanding of game objectives and preparation for their roles is essential to useful game play.

Levels of Play

There are many ways of describing the different levels of game play. The most useful taxonomy combines the idea of geographic scope and level of warfare. For the purpose of our discussions, we will describe three broad classes that are pertinent to gaming—Global/Strategic, Theater/Operational, and Local/Tactical.

Global/Strategic. In Global/Strategic games, the primary decisionmakers represent opposing National Command Authorities, or NCAs. Typically the goals of such games are to improve the perspective of the participants, test strategies, and identify important issues at the global level. These games have usually focused attention on prehostilities and transition politics and force deployments, D-day engagements, and escalation or war termination questions. Their primary output is qualitative, consisting typically of game narratives with some interpretations of events, and little numerical data. Games at this scale usually require the commitment of indefinite and large numbers of people and time, and are seldom, if ever, repeated under identical conditions.

Theater/Operational. The primary decisionmakers in Theater/Operational games are typically cast as Commanders in Chief (CinCs) of the unified or specified commands in a given region. Some games actually combine multiple theaters to achieve a pseudoglobal scope. However, because decisions are made at theater level, these games are closer to the operational rather than strategic scale.

Theater/Operational games are usually designed to explore specific issues and identify strategic, operational and tactical problems in the theater. Often

they point out areas in need of further study. Such games focus on the force levels and employment options necessary or feasible for carrying out specific military missions. Although the output of these games is similar in nature to that of Global/Strategic games, there is a tendency to run follow-on games and to generate numerical data.

Local/Tactical. The primary decisionmakers in this final category are generally battle group commanders or below. As is the case with the Global/Strategic games, a primary purpose of the lowest level games is to give its participants an improved perspective or add to the perspective of its participants. Also Local/Tactical games are useful to compare various tactics and forces. Even more than the other types of games, identifying topics for further analysis is an important goal of Local/Tactical games.

Typically, these low-level games focus attention on force levels and tactical deployments, weapon and sensor performance and interrelationships among various warfare areas. The outputs of these games usually have a greater balance of qualitative and quantitative results than is the case with the others. The number of iterations of a Local/Tactical game varies, but does tend to be higher than either of the other two categories.

The accompanying Table compares the three categories of games defined here.

Other Characteristics of War Games

In addition to the level of decisionmaker at which the game is played, war games may be characterized by:

- The number of players or "sides,"
- Instrumentality,
- Information limits, and
- Format.

Mosr war games are two-sided, one player or team representing friendly forces and the other the opposition. Often a third, nonplayer team (control), handles matters outside the scope of the player decision levels and carries out umpire functions. Although the two-sided game is far and away the most frequent type, multisided games, with three or more independent active player teams, can be useful for many applications, especially political-military games. One-player games, in which control actually assumes direction of the opposition as well as its usual functions, are frequently employed for training purposes.

In addition to players and umpires, games need some sort of tools to keep track of and display data, force movements, and interactions. In many cases, such tools consist largely of maps and charts, books of data, and orders of battle. Such strictly manual games were once the primary mode of

TABLE
LEVELS OF WAR GAMES

	Global/Strategic	**Theater/Operational**	**Local/Tactical**
Primary decisionmaker	National Command Authorities	Commanders in Chief	Battle Group or lower
Goals	Give participants a better perspective, test a strategy, identify key issues.	Explore specific issues. Identify strategic, operational and logistical problems in theater. Identify areas for further study.	Give participants a better perspective. Compare various tactics and forces. Identify critical factors and areas for further study.
Focus on	Prehostilities and transition politics and force deployments, the D-day shootout, escalation and war termination.	Necessary or feasible force levels and employment options for accomplishing specific military missions.	Force levels and tactical deployments, weapon and sensor performance and interrelationships among warfare areas.
Primary output	Qualitative. Narratives and interpretations with little numerical data. Typically only a single game run.	Qualitative. Narratives and interpretations but with some numerical data for more support. Typically a small number of games run.	Balance of qualitative and quantitative results. Number of iterations may vary, but tends to be higher than others.

wargaming, but are now being complemented by computers. Computer-assisted games use machines ranging from personal computers to large mainframes to assist in monitoring force positions and movement, weapons capabilities and other critical, data-intensive items. Extrapolating beyond such computer-assisted games are the developments being pursued at places such as the Rand Strategy Assessment Center in which the human decisionmaker is being replaced by computers built around artificial intelligence and expert system concepts. Computer-controlled games of this type are difficult to categorize as true war games, and may develop into a new, but related, tool.

Another typical distinction is between "open" and "closed" war games. An open war game allows all players essentially free access to all available information (other than the other side's plans). Typically such games use a single situation map on which forces from both sides are, for the most part, openly displayed, and force capabilities freely accessed. A closed system introduces limits on information available to players, better simulating the "fog of war." Closed games almost always require some sort of computer assistance unless they are very small in size or scope.

Finally, a war game's format may be characterized as either seminar games or system games. In a seminar game (typically an open game), opposing players discuss the sequence of moves and countermoves they are likely to make in a given situation, arriving at a mutually reasonable assessment of what interactions are likely to occur. The control team assesses the results of those interactions and reports back to the players. The process is repeated for each of the "moves" in the game. Usually seminar games use moves of various lengths of real time (time steps) and so tend to resolve different periods of the war at different levels of detail. A system game, which is often a closed one, substitutes a system of highly detailed rules and procedures for the discussion process. Players make their decisions independently and the system runs them against each other to determine the interactions. The Naval Warfare Gaming System, when used in its entirety, is an example of what such system games are like.

The Use of Wargaming

War games of all types and all levels are best used to investigate processes, not calculate outcomes. To define the results of war games only in terms of what happened, not why, in terms of "lessons learned" not "issues raised," is to lose sight of what a game really is and where its main benefits can be found. War games can help explore questions of strategy, human behavior and warfighting trends. They are of little use in providing rigorous, quantitative measures to "objectively" prove or disprove technical or tactical theories. Instead they can often provide the kernel of new theories which can be tested with other analytical tools.

Wargaming is most productive when used as an organizational and exploratory tool, or as an explanatory device. It seems especially appropriate for exploring the dynamic character of warfare. The design of the game (organizing) and the play and subsequent analysis of the game (exploring) form a loop in which the questions and issues arising from one play can reshape or reorganize the game system itself to make it a more accurate representation of reality.

As an organizational tool, wargaming can help designers and participants tie their thoughts together, and give them a more operational focus. Designing a game is an ongoing process, requiring comprehensive and coherent study and modeling of the interplay of different types of forces, carrying out different kinds of missions, for different sorts of reasons. The designer begins by estimating the types of interactions that may occur under various circumstances, and the key factors that might determine their outcome. Through playing and testing, the designer learns how well his models work and how players may intetact as they develop different solutions to the problems posed by the game. Through this design and development process, the game designer translates quantitative and qualitative tactical analyses into intelligible and practical procedures which allow the players to concentrate on making decisions, not on remembering rules. Through such a process, the designer and other participants can sometimes better see how their understanding of separate elements of combat operations are linked together.

As an exploratory tool, wargaming can give analysts and decisionmakers new insights, leading to further investigation of the sources of their beliefs. It forces participants to look at "reality" from a different perspective, and can lead to fundamental changes in how they see that reality. If the initial design of a game incorporates certain critical factors into its models and procedures, the play of the game and the questions and issues it raises can lead to the discovery of other factors whose importance may have been previously unsuspected or undervalued.

By explicitly allowing human decisions—made under the press of time and on the basis of imperfect or incomplete information—to influence the course of events and by incorporating randomness and luck, wargaming comes closer than any other form of intellectual exercise to illustrating the dynamics of warfare. By helping its designers, its players, and the consumers of its briefings and written reports to see the impact of these "unquantifiable" factors in concrete terms, a game also helps to illuminate the sources of that dynamism. Gaming provides an opportunity for deeper understanding of the realities of warfare, even if it cannot improve the accuracy of estimates of exchange ratios.

Finally, as an explanatory device, war games can be very effective at communicating analytical insights to appropriate decisionmakers. Games

have the facility to illustrate analytical findings and their underlying rationale in clear and memorable ways. In addition, decisionmakers involved in such games can provide new insights which can be explored in subsequent analyses. In this sense, wargaming is part of a continuous system of examining and raising new issues.

A war game can be very effective at building a consensus on the importance of key ideas or factors in the minds of those who participate in it. However, the power of a war game to communicate and convince is a potential source of danger. War games attempt to create the illusion of reality and where this has been done very successfully, the game can be a powerful aud sometimes insidious influence, especially on those who have limited operational experience. There is always a possibility that intentional or unintentional advocacy of particular ideas or programs may falsely color the events and decisions made in a game; this can lead to self-fulfilling prophecies. The designer of a game has great power to inform or to manipulate. It is up to the players of the game to question the designer's motives and intentions by ensuring that the methodology is appropriately linked to the game's objectives.

Wargaming and Analysis

On the surface, wargaming has much in common with systems or campaign analysis. In all these approaches, scenarios and data bases underlie and structure the research, mathematical models simulate some aspects of reality, and some sorts of rules, procedures, or umpires assure the logical flow of events.

The true value of wargaming lies in its unique ability to illuminate the impact of the human factor in warfare. The nature of the differences between wargaming and systems or campaign analysis rests primarily in three areas, the distinctions between:

- Knowledge and information,
- Decision and calculation,
- Time and event.

While systems or campaign analysis is a technique for processing information, wargaming is a tool for exploring knowledge, the human interpretation of information. Campaign analyses use information about physical processes to calculate the outcome of physical events (typically in terms of attrition). War games focus on the decisions players make, how they are made, and the effects thar they have. While in analysis time is just another variable defining an event, in wargaming time should be the critical factor in the decisions which cause an event to occur.

Campaign analyses usually preordain a sequence of events (often just a string of engagements) and calculate the "expected outcome" of those events

based on "hard" information about forces and capabilities. If one side is badly beaten, analysts go back through the sequence to determine what changes could result in a more balanced outcome. The old sequence is discarded and replaced by the new. This iterative procedure goes on until the analysts are satisfied that both sides are employing their forces "optimally." Results, usually expressed as or based on expected attrition, are then calculated and reported.

War games, on the other hand, afford the players a large measure of control over events through their decisions. Decisions are not based on clear and complete understanding of all the facts, but on how players view those facts through a cloudy and possibly incomplete frame of reference, often distorted by the pressure of time limitations; in other words, the "fog of war." In most cases, a decision once made may not be recalled. Although the immediate results of decisions are often defined by mathematical models similar to those used in campaign analyses, their true impact ripples through all the subsequent game decisions and events. What and how much is lost in war game engagements and campaigns are far less meaningful than how and why those engagements occurred as they did.

The end result of a classical campaign analysis can look very much like the single play of a war game. But it is a play in which all decisions are premade, poor decisions are self-correcting, uncertainty eliminated, and chance averaged away. That such analysis has difficulty capturing the dynamic elements of warfare or illuminating new facets of reality not already incorporated into its models should not be surprising. Campaign analysis can provide little insight into why and how a brilliant hunch, or incredible blunder, a bold gamble, or paralyzing indecision can destroy carefully crafted plans or turn ad hoc operations into decisive victories. There are no Chancellorsvilles in campaign analysis.

War games, by their very nature, seek to explore precisely those questions campaign analyses ignore, to discover "what we don't know we don't know." However, to accomplish this we must sacrifice the features that allow a campaign analysis to vary parameter values over a wide spectrum. A war game is not a mathematical experiment whose initial conditions can be recreated precisely and varied at will. The fundamental initial conditions of a game, that is, the state of its players' knowledge base, changes with experience of the game and with replacement of individual players.

In the end, systems or campaign analyses too often become viewed as "black boxes" whose main outputs are ultimately attrition results. The main output of a game should not be the *outcome* of the play, but rather interpretations of the *processes* by which that outcome occurs. If structured with that goal in mind, war games are appropriate and effective tools for exploring decision processes.

RESEARCH IN THE NAVAL HISTORICAL COLLECTION

Gifts and Acquisitions

Evelyn M. Cherpak

During the last year the Naval Historical Collection has acquired a number of manuscript collections that offer exciting research possibilities for scholars of naval history. The papers of Roy Campbell Smith, a naval officer whose career spanned the last two decades of the nineteenth century and the first quarter of the twentieth, is one such collection. The Smith papers were presented to the Naval War College in two separate lots: the first accession was donated in 1941 by his son, Commander Roy C. Smith, Jr., and consists primarily of Navy Department orders, while the second, comprising the bulk of the collection, was presented through the Naval War College Foundation in 1983 by Mrs. William T. Sampson Smith, his youngest son's widow and second wife. Both donors felt that the War College's Historical Collection was the appropriate depository, given Smith's career connections with the institution and the Newport Naval Torpedo Station over the years.

The papers consist of twenty-four boxes which are divided into four major series: correspondence, speeches and writings, subject files and miscellany. Some of the more significant materials are Smith's personal correspondence with his wife, Margaret, covering a forty-year period from 1888 to 1928; official naval orders and letters of commendation, 1876-1929; family correspondence regarding the commission of Smith's father as a United States Army surgeon in 1847-1848; speeches and writings, 1864-1931, containing his

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articles on military and naval topics published in the US Naval Institute *Proceedings*, the *North American Review* and other journals of the period; and files on US Navy personnel and promotion policies, the naval station at Guam which he commanded, and the Aztec Club of 1847 and the Society of Cincinnati—patriotic organizations to which he belonged. Photographs, newspaper clippings, tourist literature, journals, books, and family and estate papers complete the collection. A published manuscript register, compiled by this author, provides detailed box and folder listings to the collection contents. Taken together, the materials provide insights into the professional life and personal concerns of a career officer who represented an older, more romantic and less technologically complex navy.

Although Smith never attained flag rank, his naval career was marked by ship and shore assignments that took him all over the world and involved him in history-making events. Immediately after graduation from the US Naval Academy in 1878, he cruised to the west coast of South America where he witnessed events of the War of the Pacific between Chile and the combined forces of Peru and Bolivia. Other cruises to the southern Western Hemisphere followed in USS *Boston* and USS *Bennington* in the early eighteen nineties.

Smith's Newport connection began in 1887 when he was assigned to the Torpedo Station as a student. He returned in 1892 to command the USS *Stiletto* and USS *Cushing*, the Navy's first torpedo boats. His subsequent four years there launched his career as an author, for he developed an interest in the Navy's torpedo boat policy and wrote the 1897 Naval Institute *Proceedings* prize winning essay on this topic. He continued writing on naval and military topics for the remainder of his career.

From 1908 to 1910, he was a staff member at the Naval War College, where he drafted reports on Navy personnel and promotion policies. He also served, concurrently, on the Swift Board which studied and reported on the reorganization of the Navy Department. Retiring in 1921, Smith returned to the college for a four-year period beginning in 1925, where he was a member of the Policy and Command, Policy and Plans, and Intelligence Departments.

Between assignments at the Naval Torpedo Station and the Naval War College, he served in the USS *Indiana* during the Spanish-American War, where he participated in the decisive Battle of Santiago Bay. From 1903-1906, he was US Naval Attaché in Paris, France, and St. Petersburg, Russia. His reminiscences of the Imperial Court are fascinating and include news of the birth of Tsarevich Alexis in 1904 and events of the Russo-Japanese War of 1904-1905.

In 1912, Smith was named commanding officer of the battleship USS *Arkansas*, which he commissioned in Philadelphia on 12 September. The *Arkansas* ventured into Central American waters that year, taking President William Howard Taft and his party to inspect the unfinished Panama Canal.

The next year the *Arkansas* was in Mexican waters where she participated in the occupation of Vera Cruz.

Smith's post as governor of Guam and commanding officer of its naval station from 1916-1918 proved to be one of his most professionally rewarding assignments. During his tenure he instituted many noteworthy reforms, including universal military training, sanitation measures and incentives for agriculture. After two years, 1919-1921, as Supervisor of New York Harbor, he retired from the Navy and returned to civilian life. Smith spent his remaining years in Summerville, South Carolina, and Cooperstown, New York, where he maintained an interest in community affairs, genealogy, and patriotic organizations.

Other manuscript acquisitions of recent note include five rare documents relating to the life and career of Rear Admiral Alfred Thayer Mahan. Mahan was the Naval War College's second president, serving from 1886 to 1889, and again in 1892-1893. He also won renown as a naval historian for his many publications on seapower and naval strategy, including the epoch-shaping *The Influence of Seapower on History*. The items, purchased by the Naval War College Foundation and donated to the college, are: Mahan's 1856 commission as an acting midshipman, his lieutenant's commission signed by President Abraham Lincoln in 1862, his commission as rear admiral signed by President William Howard Taft in 1911, a holograph notebook on naval warfare and an 1863 letter from US Naval Academy Superintendent George Blake ordering him to duty in the practice ship USS *Macedonian*.

Two cruise journals of Commodore John B. Marchand, USN, purchased jointly by the Naval War College Foundation and the Jones family, descendents of Marchand, were recently acquired by the Naval Historical Collection. They were presented in memory of Katherine Marchand Nelson del Valle, granddaughter of Marchand. The journals recount then Lieutenant Marchand's voyage in the USS *Constitution*, one of the Navy's first frigates, to the east coast of South America and the Far East in 1843 and a cruise to the east and west coasts of South America in the USS *Ohio* in 1847-1848.

Although a small collection, the papers of Captain Archibald Douglas, USN, a Naval War College student and staff member during the nineteen thirties and forties, contain valuable career and college related materials, including his lectures and staff presentations on aviation, the aircraft carrier and the war in the Pacific and naval warfare. One interesting aspect of the collection is a file on the USS *Saratoga* (CV-3), which Douglas commanded from June 1940 to April 1942. Among other things, it includes reports on the ship's torpedoing by the Japanese in January 1942, when it was on patrol 600 miles west of Oahu.

Finally, a volume entitled *Victory at Sea* containing Admiral Sims' World

War I articles was presented to the Naval War College Foundation by Dr. Llewellyn N. Wiley of San Antonio, Texas. His father, Dr. Edwin Wiley, Naval War College Librarian, 1915-1922, bound the volume himself and collected the signatures of naval officers who were students and staff members at the college during the period 1920-1921. The articles eventually were expanded and appeared in book form under the same title in 1920. The book was awarded the Pulitzer Prize in American history that same year. Accompanying this volume is a holograph thank-you letter from Rear Admiral Albert Niblack to Edwin Wiley, dated 24 August 1917.

The Naval Historical Collection, a division of the Naval War College Library and the college depository for archives and manuscripts, is located on the first floor of Mahan Hall. The collections, which focus on the history of the institution, naval warfare studies and the Navy in Narragansett Bay, are open to scholars and interested researchers Monday-Friday, 8:00 a.m.-4:30 p.m., except holidays. Collection guides and manuscript registers may be obtained by writing the Curator, Naval Historical Collection, Naval War College, Newport, RI 02841-5010 or by calling (401)841-2435 (Autovon 948-2435).

IN MY VIEW . . .

Ian Oliver

A Distorted View on the Indian Ocean

Sir,

Doctor Howard M. Hansen's article, published in the January-February issue under the title "Superpower Interests and Naval Missions in the Indian Ocean" surprises me, first as a naval officer, secondly as a Frenchman, and finally as a European.

To begin with, the level of the naval forces of the two superpowers remains in pure abstraction, with numbers provided neither for a given time nor in their evolution through the years. An example of what is needed is the estimated presence in March 1985.

	SSN	CV	Cruiser	Destroyer	Frigate	Amphibious	Logistic	Scientific	Land Base
USA	1	1	3	5	2	--	6	2	Diego Garcia
USSR	3	-	1	3	-	2	8	7 (1 SIGINT)	--

Also present at the same time in rhe Indian Ocean were:

France	1 (diesel)	-	-	1	5	1	3	-	Djibouti La Réunion
United Kingdom	-	-	-	1	1	-	1	-	

The French Navy has been permanently present for the last ten years at a level rarely inferior to this one. My predecessor in the Naval Command College, Commander Gérard Aublet is presently the Commanding Officer of the frigate *Amiral Charner*, a ship permanently deployed in the Indian Ocean. This presence is self explanatory, for France is a riparian country there and is interested in the continuation of stability in this area of the world.

- The island of La Réunion is a French regional district (département) and her 600,000 inhabitants enjoy the same rights and the same duties as the inhabitants of Metropolitan France. One of the former Prime Ministers, Michel Debré, is a congressman elected by this island and another former Prime Minister, Raymond Barre, was born on the island to a family which moved there long ago.

- The people of the island of Mayotte wished to remain with France when the Comoro archipelago got its independence in 1975.
- The islands of Kerguelen, Saint Paul, Amsterdam and Crozet in the southern latitudes of the ocean are French territories in which scientific missions are permanently or temporarily installed.
- The Republic of Djibouti signed defense agreements with France when she gained her independence in 1976.
- Indirectly, France's naval interests are revealed by warships built in French shipyards and bearing the flag of such riparian nations as Pakistan and Saudi Arabia.

All these facts are acknowledged in one of the books quoted by Doctor Hansen: "The French case is somewhat unique because of the long history of France's activity in the Indian Ocean and its continued maintenance of both troops and dependent territories in the area." (*The Indian Ocean in Global Politics*, by Larry W. Bowman and Ian Clark, edited in 1981 by the authors, page 3.)

The naval officers I have met in the War College and throughout the USA who are interested in the Indian Ocean are perfectly aware of the significance of the French Navy's presence and of the excellent and constant cooperation established with the US Navy in this area.

Without any doubt, this cooperation is run quietly and is not widely published. This makes its very existence known only by the parties directly involved. I will point out two examples, withholding the names of officers candidly speaking in informal discussions.

- An officer previously assigned in the State Department told me how highly the State Department appreciated the deployment of a French anti-mine squadron to Djibouti in 1980-81 when the threat to the Strait of Hormuz was at its peak.
- A flag officer who recently had command in the Indian Ocean told me of the very close and personal relations he has built with his French counterpart.

But the French Navy is not the only Western navy present in this ocean.

- The British—who, by the way, are leasing Diego Garcia to the USA and are oil exporters—have since 1977 deployed two surface ships and a support ship in the vicinity of the Persian Gulf. About every two years a Royal Navy squadron, composed of 5 to 6 surface combatants and generally one SSN, is deployed for a six month's cruise in the Indian Ocean.
- Periodically the Federal Republic of Germany deploys ships to the area.
- About one half the time an Australian ship is in company with the US squadron.
- During the summer of 1984, France, along with the USA, Great Britain and Italy, was one of the main participants in sweeping mines out of the Red Sea. France sent four mine hunters and two support ships.

Meanwhile, even though it is still very important, the position of the Middle East as a source of energy supply has decreased in the last ten years.

1976: 37.5 percent (22 million barrels per day)[1]

1983: 21.6 percent (12 million barrels per day) of the world production of crude oil originates from the area.

A geographic diversification has occurred with the North Sea now providing a substantial part of European consumption (38 percent). There is also a diversification in type of energy. In France, nuclear energy is now providing 22 percent of the total

consumption of energy (59 percent of electricity), decreasing dependence on oil from 66 to 45 percent in ten years and increasing the rate of home produced energy from 25 to 37 percent. Even if those figures are still expressing some vulnerability for France, their evolution over recent years points out the tangible results of a steadfast policy. The USA is now only dependent on oil coming from the Gulf for 5 percent of their supply but, on a totally interdependent market, the number of barrels per day shipped to this country (680 thousand) is still significant in comparison with the quantity shipped to France (1,200 thousand).

Adding naval presence and energy policy, the statement that since "strategic materials, especially oil, originating from the Indian Ocean are more vital to the United States' allies than to the United States itself, it would be appropriate for these states to assume a greater responsibility for protecting access to them," followed by statements of "lack of willingness" and "lack of capacity" should be backed up not only by quotations from other scholars but also by facts with some differentiations between the Western states.

In this conclusion, Doctor Hansen acknowledged the existence of "perceptions, interests and objectives of littoral states" which react upon the interests of the two superpowers. However, his article aggregates indifferently all the other actors in the area. This simplification of complex factors is of no help for the prescription of viable strategy options for the United States in the Indian Ocean.

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[1]All data on energy comes from the Energy Information Administration in Washington, DC, document DOE/EIA-0219(83).

SDI and *Et al*

Sir:

"SDI and the Objectives of Arms Control," by Fought and Bierman (*Naval War College Review*, May-June 1985) presents some interesting thoughts on its subject for consideration by both advocates and opponents of the SDI. Curiously, however, the authors seem to discredit themselves by committing the very transgression which they take the pains to define. At the end of their first paragraph, they tell us that "Intellectual honesty demands we go beyond casting aspersion, from either direction, and examine whether and how these programs might be integrated to achieve our overall national security objectives." With this to set the tone, I was quite unprepared for the end of their statement, where I read that some parties are motivated by ". . .

the glamour of publicly ridiculing the current Administration . . .," are members of ". . . the current version of the 'Flat Earth Society' . . ." and are "rock throwers" to boot! From their context, it is difficult, if not impossible to interpret these as anything other than aspersions, cast at opponents of the SDI. Either a double standard is being applied, or Fought and Bierman are being rather careless about what they write.

I can certainly agree that some of what has appeared in the open literature on the SDI deserves to be called sophomoric. One of the reasons for this, I suspect, is that in the current fixation on innovative strategic thought based on conceptions of rapidly emerging technologies, there is a marked tendency to forget the fact that military systems, when actually used for their intended purposes, must cope with the harsh realities of tactical conflict—even sometimes with a competent enemy.

If the United States were to deploy a space-based layer of defense against Soviet ballistic missiles, I suspect (as do Richard Garwin and others) that the primary problem would soon be found to be that of defense of such a layer against a diversity of possible forms of antisatellite attack, both earth-based and space-based. This poses the obvious difficulty that an attacker can specialize in selected modes of attack, whereas the general purpose defender, by definition, cannot specialize his resources for defense. Thus, something like a principle of functional concenrration is operative; our fighting spacecraft would need to be much more versatile than an enemy's. In addition, there is a problem derived from rhe fundamental physics of earth-orbital mechanics which tends to favor the system attacker. The defender must have enough units in orbit to provide military strength whenever and wherever he might be attacked, while the attacker can choose his time and place to concenrrate forces, and poke a hole in the defending system. Once established, such a hole requires significant time to repair. Thus, the classical principle of concentration of forces is operative; we would have to have, in toto, many more fighting spacecraft than an enemy, to be sure of having sufficient defensive power whenever and wherever needed.

I assert that stripped to its essentials, the noriou that space-based, general defensive systems are feasible is tantamount to acceptance of two assumptions. The first is that the United States can establish and maintain technological-military superiority over the Soviets in virtually all conceivable classes of system-defensive threats. The second is that we can overcome the time-honored principle of concentration of forces in tactical conflict, an effect which would stress the demands on our technology yet more!

The nearest analogue to a space-based defensive system against ballistic missiles to be found in concepts of naval warfare would seem to be close blockade by surface warships. History suggests that the evolution of technology is the very factor which has made such a strategy obsolete. Why should we expect some different effect to prevail in space warfare?

I do not for a moment doubt the desirability of the SDI's ultimate objective, or the sincerity of those who advocate it. I share the advocates' desire to liberate humanity from the vise of offense-dominated nuclear deterrence. I do doubt that "they" are giving due consideration to the fundamental nature of the problem they are trying to solve. Perhaps we might gain a better perspective on the problem by reading Commander Gravatt's interesting paper, which appeared in the same issue of the *Naval War College Review* as the Fought and Bierman statement (see "Elements for Conventional War—Land, Sea, Air and Space"). Commander Gravatt's paper begins

with the significant words, "Conventional war in one medium or environment is not much different from that in another. The tools vary but the work is the same." If we can stop thinking about the SDI in strictly strategic terms for a moment, we might better appreciate the applicability of Gravatt's words to the problems of the space-based portions of the SDI concepts.

Fought and Bierman suggest that the SDI ". . . may offer the only hope to unravel the intellectual inconsistencies which currently confound the objectives of arms control or of national security in general." This is a rather diffuse statement for those who are not members of the "intellectual community" to digest, and I would therefore like to suggest a more comprehensible line of reasoning, as in what follows.

The objective of the SDI, even if it is ever to be attained, is many years in the offing, as all will admit. There is the danger that we could be paying the SDI too much attention, when we should be considering more immediate eventualities. The Soviets, as we all know, have been working to develop antisatellite capabilities for some years. Fortunately for us, their efforts have so far achieved only mediocre success. What if the Soviets were to achieve a substantial breakthrough in antisatellite capability, and the United States were not prepared to respond in timely fashion? Given the time now required to develop new military capabilities, we might then face a lengthy period of Soviet offense-dominated control of space. Given the apparent reliance of our own various military forces on space-based assets, at least in part, such a situation could be detrimental to our sense of national security in general.

I suggest that the pursuit of the SDI is not the only way, or even the most important way that we should be studying the possible evolution of national military capabilities from rapidly emerging technologies. I further suggest that offense-dominated deterrence is the most likely thing to be required of us next in space, and that we had better be prepared for it, since it is much preferable to offense-dominated Soviet control of space.

As to such topics as political and military interactions bearing on national security, America's first great thinker on such matters, Alfred Thayer Mahan, made a most uncharacteristically straightforward statement. In commenting on the effectiveness of the Monroe Doctrine, he wrote that, "Armament alone can sustain, and to be bloodless, it must be sufficient 'that the opposed be ware of thee.'" While we would presumably not wish to be guilty of being the first to begin to project substantial military capability into space, we had better not be far behind the Soviets if they elect to do so. We cannot expect to prevent any such thing by negotiations, unless the negotiations are backed by an imminent sustaining base of capability in space armament. Offensive capabilities in space are a technologically easier thing to achieve than defensive capabilities. If the Soviets take this easier step and we do not, the question of whether we might later wish to deploy space-based SDI elements could become quite irrelevant.

Certainly we must pursue the objective of the SDI in some degree, to guard against a possible Soviet breakthrough in the subject of ballistic missile defense. But the subject seems to have been inflated out of all proportion to its importance in relation to everything else. The SDI has been described as a new vision of the

future. It is certainly that. But visions ultimately must be discarded if unsupported by more corporeal things. Whatever may be said about the sophomoric comment which has appeared since, it is obvious that the SDI's announcement was preceded by much less thought than has followed it. The quality of thought in each category is what we are arguing about.

The SDI may be a vision which can be brought to reality. On the other hand, it may be an example of the tragic fact that military theoreticians are guilty of ignoring and letting our political leaders ignore even what little we know of the fundamentals of military conflict.

Theodore C. Taylor
Pacific Palisades, California

Intelligence, Intelligence

Sir,

Reading Rear Admiral Colwell's article on "Intelligence and the Okinawa Battle" reinforces my appreciation of intelligence in general and Reinhard Gehlen's memoirs in particular. Written fifteen years ago, it is an instruction of unparalleled perspicacity in the intelligence literature.

From 1956 to his retirement in 1968, General Gehlen was Chief of the Federal German Republic's *Bundesnachrichtendienst-BND,* i.e., the Federal Intelligence Service, and a Lieutenant General (Reserves) in the *Bundeswehr.* From 1946 to 1956, Gehlen headed the BND's precursor organization.

Gehlen's memoirs are lucid and provocative without being staged or presented as any kind of an exposé. From Gehlen one does not get the highly dramatized, intricately plotted, nearly unbelievable reconstruction of, for example, what became of Martin Bormann. But rather a couple of paragraphs which explain, from the inside, that Bormann was captured and interned by the Soviet Army and died in captivity inside the USSR—a fate seemingly not unlike that of Raoul Wallenberg, a man who may be regarded as the antithesis of Bormann.

What makes Gehlen's memoirs worth reading again and again were his two great and principal skills: the management of intelligence collection, evaluation and reporting resources, and expertise in Soviet affairs. Today, it is little remembered that Reinhard Gehlen was one of the few great Sovietologists of the twentieth century. From 1942 to 1945, as a Wehrmacht Colonel and Brigadier General, Gehlen was chief of the German General Staff's *Fremde Heere Ost* (Foreign Armies East), and General Staff's own dedicated intelligence office for understanding the Soviet Armed Forces. In chapter two "Stalingrad and the Citadel," for example, General Gehlen details how Foreign Armies East calculated the strength of the Soviet Army in World War II. Reading this chapter puts the recent General Westmoreland vs. CBS and Sam Adams issues in bold perspective, showing the importance of enemy order-of-battle analyses and its

sometimes devasting impact on the command and management of battles and wars. Gehlen's sources for those calculations were captured Soviet documents and POW interrogations, plus two sources who heard Stalin say in March 1942. "I have to meet the needs of a six-million-man army."

From his World War II experience, General Gehlen cites many examples of Soviet military policies, strategies, doctrines and objectives which need to be reexamined in light of issues and activities of the late 1980s. One such is a quotation from a 1943 Soviet representation to an unnamed Western nation's military mission in Moscow, i.e., a Soviet ally: "The principal Russian strategic objective is not one of regaining lost territory or pushing back to the west; rather, the Russian war leadership intends to crush the German army's striking power." Over forty years later, that intention remains the central theme of the combat operations for which the Soviet Armed Forces train and fight. Even now, Marshal of the Soviet Union N.V. Ogarkov, former chief of the Soviet General Staff and now the architect and likely High Commander of a renewed Soviet European Theater of War, reflects on the Soviet objective in World War II as having consisted of turning "the country into a monolithic fighting camp," of destroying German "man-power and equipment" and of "wearing down the enemy's crack divisions." General Gehlen knew well with what utter seriousness the Soviets devote themselves to the study and waging of war and how Soviet military might would be aimed at disarming and destroying the fighting, war-waging means and methods of its enemies, rather than at "political solutions." His memoirs continue to advise the West that we cannot afford to misrepresent or to miscalculate this factor.

Gehlen's evaluation of the American course in the Vietnam War will not make pleasant reading. Ten years before Colonel Harry G. Summers' *On Strategy,* reminded us that we do not practice explicit strategic thought in the United States, Gehlen observed this impoverishment in the Vietnam War. In turn, what one can draw from reading Gehlen on the Soviet military mind is that the Soviets do not suffer from the same malady and that the Soviet concentration on military strategy is inspired and necessitated as a defensive response to the German, not the American, expertise in and devotion to strategic thought.

Gehlen speaks clearly and sharply in his memoirs. Reading them is an experience much like taking instructions from a precise professor whom one knows to be a leading authority in his field. Gehlen says, "The essence of [an] . . . intelligence service, apart from an all-embracing knowledge, is the ability to follow and project historical trends into the future." This is a statement of strong impact because far too many intelligence specialists behave as if it mattered more what the enemy has done than what he will do, and why he will do it. ". . . intelligence on political and to a certain extent military affairs is largely a matter of prediction. That something may occur does not necessarily mean it will . . . [but] the value of a prediction is [not] to be judged solely on the basis of whether that prediction comes true."

General Gehlen correctly identifies the core of the contemporary intelligence dilemma as "the modern controversy over effectiveness versus accountability." No later book makes this case probably better than Thomas Powers' *The Man Who Kept Secrets: Richard Helms and the CIA.* As Powers says, these "are not neutral subjects." The Powers book, a unique study of great insight on its own merits, confirms the essential correctness and precison of Gehlen's and the BND's penetrations of

matters Soviet. Powers points out that CIA's perceptions of the USSR have been greatly aided and complemented by those of the BND. This has not extended, however, to the United States and its allies taking proper or necessarily any significant cognizance of the USSR's dependencies on its own sea lines of communication (SLOC)—in preference to a predilection to interfere with Western SLOCS—particularly the main 12,000 nm Soviet SLOC which connects the European USSR with the Asian USSR via the Suez Canal or Cape of Good Hope routes and the Indian Ocean. This dependency, also to be seen as an opportunity, has profound implications for maritime strategies, naval power projections, naval building programs and foreign policy. It explains, in substantial part, the Soviet Navy's long-term presence, in squadron strengths, in the Mediterranean and Arabian seas as well as Soviet military presences in Syria, Ethiopia, Mozambique, and Vietnam. General Gehlen explicitly recognizes this Soviet dependency, and, as late as 1978, the BND continued to study and report on the "Soviet Southern Sea Route." A careful, empirical "German mind" like Gehlen's would not be expected to expend organizational resources on frivolous or trivial subjects. Fifteen years ago General Gehlen predicted that "the Soviet Union will . . . establish strong points in the Mediterranean, in the Arab world and in the Indian Ocean." Gehlen called for "closer collaboration between Nato . . . and . . . the diminutive but politically and militarily virile Israel" to strengthen Nato's southeastern corner. The year 1984 saw the first combined naval exercises of the United States and the Israeli Navies.

Thus, the crisp, clear incisive memoirs of General Reinhard Gehlen need to be resurrected and reexamined, not only as they affect the maritime and naval strategies of the United States and Nato but as they reflect, in a broader sense, Soviet motives and designs as rendered for decision makers' uses on the bases of the qualities and the necessities of intelligence and prediction themselves.

James T. Westwood
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Middle East Security

Sir:

I am writing concerning James Kurth's article "American Perceptions of the Israeli-Palestinian Conflict and the Iranian-Iraqi War: The Need for a New Look," published in the January-February 1985 issue. Prof. John Spanier has dealt ably with the Iraqi section of Prof. Kurth's article, in his "Commentary" printed following the piece. But he did not address the equally serious conclusions of that section of the article dealing with the Palestine issue, and the implications for the United States of a policy of supporting the annexation of occupied Arab lands to Israel, which is in effect the recommendation of the article.

Even if one were to accept the distorted picture of regional politics painted by Prof. Kurth—the idea that there are no nation-states in the Middle East is questionable in the extreme, and in any case applies in some measure to most other regions of the world, including some areas of Europe, where the nation-building process has been slow and difficult. His proposals would spell disaster for US policy in the region. Prof. Kurth is presumably aware of the religious importance of Jerusalem, location of the third holiest site in Islam, for Muslims. He cannot but be aware of the current role played by radical Islamic trends in the region. Nevertheless, he seems to ignore the likely fallout for the United States from a policy of condoning the Israeli annexation of Jerusalem.

Equally grave, he brushes aside the realities which are accepted by virtually every other serious observer, even those unhappy with what they see: that Palestinian nationalism is a potent force both inside the occupied Palestinian territories and in the Palestinian diaspora; that Israeli efforts to destroy it or pretend it doesn't exist have proven futile; and that it plays a major role in inter-Arab politics irrespective of the rise or decline in the fortunes of the P.L.O.

As a result of all of this, Prof. Kurth manages to conjure up a set of proposals for US policy guaranteed to infuriate Palestinians, Arabs and Muslims alike, to undermine regimes in the region which are aligned with this country, and to give opponents of the United States ammunition on a silver platter.

It would be hard to concoct worse policy advice than this from the point of view of the United States and its national interests. The only possible beneficiaries of such a foolish course of action would be that minority of Israelis symbolized and currently led by Ariel Sharon, who have spoken openly of dismantling the existing nation-states of the Arab world, shattering them into religious and ethnic mini-states among which Israel would tower as a giant. Such thinking is directed in the first instance at Jordan (which Sharon, supported by Prof. Kurth, would turn into a "Palestinian" state), Syria, and Iraq, of which Prof. Kurth notes: "An undefeated postwar Iraq could become a serious threat to Israel's security."

It is this exaggerated and misplaced concern for Israel's security, rather than a sober assessment of the security interests of the United States—not to speak of those of the Arab peoples—which seems to be at the root of Prof. Kurth's proposed "new look." A new look is indeed needed, but in a very different direction than that suggested by this article.

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PROFESSIONAL READING

"Nuclear winter adds one more possibility to the spectrum of unknown consequences of global war . . . it may also add an extra margin of uncertainty into all of our calculations, and thereby strengthen that part of deterrence which relies on uncertainty in the outcome of war to guarantee the peace."

Peter D. Zimmerman

Committee on the Atmospheric Effects of Nuclear Explosions, National Research Council. *The Effects on the Atmosphere of a Major Nuclear Exchange.* Washington, D.C.: National Academy Press, 1985. 208pp. $14.50

The idea of "nuclear winter" first caught the public's attention in 1983 because of an article published in *Parade Magazine*, a Sunday supplement. An unusual vehicle for scientists to communicate, the *Parade* article added extra urgency to their message that any major nuclear conflict would cause a devastating drop in global temperatures lasting for many weeks. The *Parade* article, by Carl Sagan, claimed that its conclusions were backed up by a scientific paper which had been circulating privately for many months and which had not been refuted by experts in the fields of atmospheric physics and chemistry. Sagan's article, as well as the longer "TTAPS" paper,[1] so-called from the initials of its authors, contended that even a war in which only a total of 100 megatons of nuclear explosives were used could produce a disastrous temperature drop.

[1]R.P. Turco, et al., "Global Atmospheric Consequences of Nuclear War, Interim Report," R&D Associates, Marina del Rey, Calif., 1983.

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The antinuclear movement quickly adopted the 100-Mt scenario and took the TTAPS paper and its legitimate scientific predecessor[2] by Paul Crutzen and John Birks to heart. The notion that northern hemisphere, perhaps even global, civilization could be wiped out by even a trivial fraction of the available nuclear arsenals added additional fears where none were needed. In short order most physicists and chemists found themselves being asked "do you believe in nuclear winter," as if belief were appropriate in a situation where the physical assumptions and reasoning could be tested. The National Academy of Science was asked to examine the nuclear winter hypothesis and to report to policymakers and to the nation. In late 1984 a formal report was issued.

The problem is, of course, an enormously complicated one, with no simple answers or results. To begin with, the National Academy's study panel adopted a "baseline scenario" in order to have a concrete example to work from. A war in which 6,500 Mt, about half of the present world arsenal, was detonated, was chosen to be representative of a truly major global war. Most of the nuclear yield was expended to maximize blast damage to structures; 1,500 Mt was to be detonated at ground level.

Some conclusions emerge readily from the National Academy study and from other efforts as well. Given a large enough nuclear war, a war in which cities were attacked and burned; given that the war occurred during the summer months in the northern hemisphere; and given that existing models of large-scale fires and the injection of smoke into the upper atmosphere are realistic, then a significant drop in most northern hemisphere temperatures, lasting for a few weeks or longer, is probable. Serious effects might occur for other sets of assumptions, for smaller nuclear exchanges or for exchanges which avoid cities for the most part, and for cases where the actual fuel loading (the mass of combustible material per square centimeter) is significantly less than the $4g/cm^2$ assumed by the National Academy panel. But reasonable changes in the scenario might also greatly *reduce* the magnitude of the atmospheric effects. The nuclear winter results are far from "robust" as the assumptions are varied over plausible ranges. For example, the season at which the war occurs is critical. During the winter the main heat source for the northern hemisphere is actually the stored energy in the oceans. A drop in sunlight would have relatively little effect on the severity of the winter, as well as a small effect on the growth of vegetation in the spring.

The Report itself tells us that some reviewers cautioned that "at present the only scientifically valid conclusion would be that it is not at this time possible to calculate the atmospheric effects of nuclear war."[3] I concur. While the National Academy of Sciences' report illustrates many of the variables, and

[2]P.J. Crutzen and J.W. Birks, "The atmosphere after a nuclear war: Twilight at noon," *Ambio 11*, 1982, pp. 114-125.

[3]National Academy Study, p. 5.

discusses them at length in terms which are significant for specialized scientists rather than for policymakers or the public, its baseline case is representative of a very large war, and many of its assumptions tend to be those which might produce severe effects. One problem with the study, from a technical point of view, is that it does not take up a wide enough range of excnrsions from the baseline. In particular, it does not include possible conflicts in which the nuclear exchange might be much smaller (such as the TTAPS 100-Mt case, although the large temperature drop found by the TTAPS group in that scenario seems to me to have been produced by concatenating unreasonable assumptions).

The first papers to explore nuclear winter, the TTAPS study, and the Crutzen and Birks article, used "one-dimensional" models in which the smoke from the conflict was distributed uniformly over the whole northern hemisphere, the absorption of sunlight was computed, and that translated into a temperature drop. More complex "two-dimensional" models permit the inclusion of nonuniform distribution of the air pollution and also effecrs of warming from large bodies of water on the littoral regions of the hemisphere. A full "three-dimensional" model takes into account some of the stratification of the atmosphere.

Computer simulation, however, is by nature limited; an example will show why. All clouds are patchy. Smoke clouds from large-scale fires such as those occurring annually in the Amazon basin as part of the program of land clearing are, as well as those from large forest fires observed from space, always have clear areas where sunlight reaches the ground. It matters very little if a smoke cloud absorbs 99 percent or 99.99 percent of the sunlight falling on it, but the smaller areas where the cloud absorbs only 50 percent (or less) of the light can produce distinct areas of local warming, spreading as the cloud moves. The local warm spots adjacent to the cold areas where the cloud is fully opaque will generate powerful turbulence which cannot be handled by global circulation models (GCMs) of a size which can fit into modern computers. This is just one example of a case where even with good estimates of smoke injection, rainout, fuel loading and all the other variables, our understanding cannot exceed a fairly primitive level.

Can more complex computations alone tell us more? Possibly so, but they will not answer some of the most important problems. As Freeman Dyson has pointed out, a science which cannot yet tell us if next winter will be mild or severe, probably should not be relied upon in a terribly perturbed situation where most of its usual assumptions have been radically altered.[4]

The National Academy report raises more questions than it answers, in the finest tradition of careful scientific inquiry. The work reported is carefully presented. It is even clearly presented for the knowledgeable atmospheric

[4]Freeman Dyson, *Weapons and Hope* (New York: Harper and Row, 1984), p. 21.

scientist, although a bit opaque for the rest of us. It concludes that severe cooling of the atmosphere will occur after a large enough nuclear war, adding misery and horror to what all agree will be a catastrophic period, unmatched in history.

The report suggests an appropriate course of research, thankfully extending well beyond most of what is planned and funded. Most of the nuclear winter research money is now going into refining computer modeling of the atmosphere; the garbage in-gospel out syndrome will be perpetuated. Much more important work remains to be done on the study of the dynamics of large-scale fires, on analysis of what burns in a city and what is likely to be ignited following a nuclear attack. For example, bomb light precedes the shock wave so, the high winds tend to blow out many fires started by the thermal radiation. It may be no coincidence that the blasted-out and burned-out areas of Hiroshima are very nearly congruent and coincident.

Much more research effort must be directed to experiments on large fires. This does not mean the deliberate setting of blazes to mimic nuclear fire storms; it does mean being ready to study targets of opportunity from forest fires to the Amazon clear-cut procedures. The resources have not yet been committed to allow prompt acquisition of data from satellites, rapidly deployed aircraft and, where possible, by sending in atmospheric scientists to the fire site. Furthermore, the historical record of the Hamburg and Dresden fire storms has been completely neglected in most of the research which has crossed my desk. Indeed, the Germans recognized that the fire storms were unusual events and went to great length to document as much as was humanly possible. These reports are available; their neglect is inexcusable.

But, finally, we are left asking if there are any policy implications to be drawn from the possibility of nuclear winter occurring—or not occurring—as a result of any specific conflict. It is improbable that meteorology and climatology will ever advance to the point where targeting staffs and Presidents can factor probable climatic effects into the SIOP with even slight confidence. It is clear that there is no sharp threshold of nuclear destruction above which the climate alters, and below which little happens. Nuclear winter adds one more possibility to the spectrum of unknown consequences of global war—it is a terrible addition, but is it a quantum addition to the better-understood consequences of fire, blast, radiation and famine? It may be at the outer limits of the assumptions which have gone into the models. More importantly it may also add an extra margin of uncertainty into all of our calculations, and thereby strengthen that part of deterrence which relies on uncertainty in the outcome of war to guarantee the peace.

Andrew, Christopher and Dilks, David, eds. *The Missing Dimension, Governments and Intelligence Communities in the Twentieth Century*. Chicago, Ill.: University of Illinois Press, 1984. 300pp. $27.95

One can scarcely pick up the newspapers these days without reading of the real or supposed activities of intelligence agencies both here and abroad, or learning about the latest book by a former intelligence officer filled with revelations of heroics or misdeeds. But intelligence with breakfast is only a relatively recent phenomenon. For most of this century even the existence of such organizations was unknown to the general public and even to the rest of the governments in whose bureaucracies they were buried and disguised. Thus scholars have been unaware of the impact intelligence has had on the events they have analyzed. It is this "missing dimension" that the editors of this work have set out to explore. To be sure, there always have been spies. What the editors are concerned with is the development of full-time governmental organizations charged with the secret collection of information and its analysis.

The witty and knowledgeable introduction and the 11 essays that follow, rehearse the obvious as well as the arcane aspects of intelligence and policy during this century. Any collection of essays is bound to be uneven in quality, and this one is no exception. By and large, however, the essays provide interesting—even fascinating—and useful discussions of the development of intelligence and its influence on policy.

A number of the essays stress that early in the century governments did not know how to use and handle a steady source of information provided by new organizations. The result was that intelligence was often misunderstood, misused, and sometimes badly compromised. For their part, the fledgling intelligence services ofttimes provided sloppy, inaccurate intelligence and devoted their energies to squabbling with bureaucratic rivals. Nonetheless, intelligence had a growing impact on foreign policy and in some cases, sadly, on domestic affairs as well.

All 11 essays are worth reading. One, however, has a particular immediacy for the present, and is useful in dealing with the others. Wesley Wark's study of British military intelligence on Nazi Germany prior to WW II shows the profound impact military estimates can have on national policy.

During the 1930s, the three service intelligence organizations analyzed military developments in Germany, while the Industrial Intelligence Centre (IIC) focused on her war-making potential. It should come as no surprise that these four organizations operated independently and rarely consulted or coordinated. Some amalgamation of reporting was done at the level of the Chiefs of Staff, but there was no real integration of analysis.

RAF intelligence appreciations of the Luftwaffe went from one extreme to the other. Unfortunately, the period of deepest pessimism with its overestimates of casualties per ton of bomb, and of the size, sortie rate, and bomb-carrying capacity of the German Air

Force spanned the period of the Munich crisis. Optimism followed in 1939 as British aircraft production began to gain on the Germans.

War Office estimates went through similar gyrations. Until after Munich, the War Office "seems to have been held spellbound by the rapid expansion of the German Army and the modernity of its equipment." In 1939 the War Office began questioning the sustainability of the German Army and wondered if all those divisions were merely a facade.

Naval intelligence estimates were the worst. They were marked by ignorance and wishful thinking, compounded by reliance on the Anglo-German Naval Agreement of 1935 which limited the German Navy to 35 percent of British naval power. After the agreement, the intelligence effort declined as reliance was placed on official German pronouncements. By the time Hitler denounced the agreement in April 1939, the Admiralty had been misled on the size of capital ships, on the extent of the submarine force, and on German naval intentions. The Admiralty believed, for example, that Germany was building a fleet primarily for operations in the Baltic and that unrestricted submarine warfare was the least likely prospect.

Economic intelligence on Germany's warmaking potential was generally on the mark. Nevertheless, the IIC was carried away by its interpretation of the control a totalitarian state can exercise over its economy, and explained away or discounted German economic shortcomings.

The political ramifications of these estimates of Nazi military strength were enormous. "Exaggeration of the German rearmament achievement, a feature of intelligence reporting for most of the 1930s, was an important element in the pursuit of appeasement. Equally, the first signs that the arms race gap was being closed, during 1939, helped to foster that unreal atmosphere of confidence which was the background to the fateful British guarantees to the states of Central and Eastern Europe."

ART BEGELMAN
Naval War College

Phillips, David Atlee. *Careers in Secret Operations: How to be a Federal Intelligence Officer.* Frederick, Md.: University Publications of America, 1984. 93pp. $15

For 25 years, until his retirement in 1975, David Atlee Phillips was a career intelligence officer with the Central Intelligence Agency. Among his reasons for leaving government service at that time was his determination to defend the intelligence agencies from what he felt was the unrelenting criticism that they were being subjected to. That some of the "criticisms of the seamy side of our intelligence agencies' behavior were deserved" he had no doubt; but some of the accusations, he believed, were extreme, deliberately obfuscated, and had the potential of crippling the US intelligence establishment. For these reasons, as Phillips stated in the Introduction of his most recent book, *Careers in Secret Operations: How to be a*

Federal Intelligence Officer, he wanted to "be free to speak up for the Silent Services." Furthermore, as he wrote, "One of my principal concerns was that young people contemplating a career in government might hesitate to be associated with the CIA, FBI, or the other intelligence services."

The essential purpose of the book is to inform and to convince young people to consider a career in intelligence. To inform them as fully as possible, Mr. Phillips starts off his discussion on a career in intelligence by listing the questions most frequently asked him during his many appearances on college campuses or while he talked on behalf of the Association for Former Intelligence Officers. Among these questions were: "I've been into drugs. Will I be hired? Can I beat the lie detector? If I work undercover, can I ever become an Ambassador?" To this last question Phillips responded that in two instances former CIA directors, William Colby and Richard Helms, had received ambassadorial appointments. Helms may not have been a good example for Phillips to cite; Helms had served in several of the most responsible positions in the agency, but had not been posted in an undercover assignment. To the obviously ambitious young people who had asked this question Mr. Phillips might have replied that a one million dollar political contribution would probably be an easier route to an ambassadorship.

Other frequently asked questions related to the danger in serving in an overseas assignment, its effect on family life, and the kinds of education and experience which would be most helpful for attaining an intelligence position. Mr. Phillips provided eminently practical and realistic responses to these questions.

Much of the book offers helpful guidance for anyone seeking a position in an intelligence agency: how, where, and when to apply for a job with the CIA, the FBI, or for all of the other agencies which comprise the intelligence community. Many of these departments or agencies are not usually recognized by the public as being part of the intelligence community: the National Security Agency, the Defense Intelligence Agency, the Department of the Treasury (with three components engaged in intelligence work), the Drug Enforcement Administration, and the Department of State (Bureau of Intelligence and Research, which in one instance Phillips refers to as the Bureau of Analysis and Research).

Phillips devotes as much of the book to the CIA as to the other agencies combined, but this is understandable since he spent his entire governmental career with the agency. Included in the first chapter on the CIA is a brief description of the four CIA directorates—Intelligence, Administration, Science and Technology, and Operations. The work of some of the major offices and components within the four directorates is described. Among those components which are extensively discussed are the Office of Economic Research, the Office of

Political Analysis, and the Office of Strategic Research, all of which are in the Directorate of Intelligence. (Since this Directorate has recently been reorganized, the functions of the offices remain but the names have been changed. However, this presents a truth to those interested in government as a career—reorganization is a permanent feature of life in the Federal Government.)

In this chapter on the CIA the kind of work that is being done within the agency is effectively summarized, and the reader is able readily to learn what the responsibilities of an intelligence officer are, what educational background would be most useful to have, and where this type of work seems to be heading. What results from this discussion, and from the book overall, is the realization that there is need in the intelligence community for economists (of many varieties), political scientists, geographers, historians, military specialists, librarians and information/computer specialists, geologists, cartographers, demographers, foreign language specialists, scientists of every persuasion, and on and on. Additionally, there are business administrators, personnel managers, psychologists, those trained in the law, typists, stenographers, etc.

In a second chapter on the CIA there is a discussion of the Directorate of Operations, what Phillips calls "The Secret CIA." The concentration in this chapter is on clandestine work, and here Phillips draws on his experiences gained while he served overseas for the agency. Some examples of what kind of activities represent operational assignments are given, and Phillips includes some interesting anecdotes in this section.

Following the section on the CIA there are brief chapters on the other intelligence agencies. What is covered are the functions of each, the educational qualifications which would be most helpful in getting a job, and the procedures to follow for submitting a job application and where the applications may be sent.

In less than 100 pages, Phillips has tried to include as much on what a career in intelligence would be like as one possibly can: retirement benefits, the language of the intelligence world, the ethics and morality of secret operations, and a suggested bibliography for further reading. What Dave Phillips has written in *Careers in Secret Operations* is a useful primer for how to apply for a position in the several intelligence agencies, what a career in intelligence means, and a taste of what the profession of an intelligence officer is likely to be. Phillips reveals that a 1983 survey conducted by *The Washington Post* of many thousands of government employees indicated job satisfaction for CIA careerists (and presumably for intelligence professionals overall) was at the highest levels for federal workers. The dedication Dave Phillips continues to have for the intelligence profession is evidenced by this observation and in all of his comments made in this book.

HENRY M. SCHREIBER
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May, Ernest R., ed. *Knowing One's Enemies; Intelligence Assessment Before the Two World Wars.* Princeton: Princeton University Press, 1985. 561pp. $29.50

In early 1756 the British Government wrote off intelligence reports of an impending French seaborne invasion of Minorca, then a principal British naval base, as the product either of factional intrigues at the court of Louis XV or of a French disinformation campaign. But the French fleet sailed, the British failed to relieve their besieged garrison, and for the loss of Minorca Admiral Sir John Byng, the British task force commander, was made the government's scapegoat and shot to death by a squad of marines on the quarterdeck of HMS *Monarque.*

The loss of Minorca represented both a failure in intelligence appraisal—the gathering and analysis of data, in Ernest R. May's terms, and in assessment—making decisions partly by the use of such data. But historians have noted the intelligence dimension of this important episode in the Seven Years War only in passing. And so they have done in their studies of most wars.

Knowing One's Enemies; Intelligence Assessment Before the Two World Wars is an impressive attempt to begin casting scholarly light on the most shadowy of the arts and sciences of warfare. Most of this collection, its editor suggests, could not have been written as recently as a decade ago. But Western intelligence scandals of the 1970s forced governments to release tightly held documents; more important, historians who earlier would not have understood the significance of secret files laid open under their noses began educating themselves about the arcane business of intelligence.

Like most collections of articles, this one is uneven in quality; but unlike many others, all of them are worth reading, and a few of them are superb. Given the historical era with which they are concerned, they concentrate almost exclusively on *Humint* and have very little to say about *Sigint*, which is now regarded as being more efficient and having greater value than the former.

The First and Second World Wars are hardly neglected subjects, but in these essays much new wine is poured from old bottles. For example, no reader should miss Paul Kennedy's "Great Britain before 1914." The British intelligence failure, he suggests was largely a failure of imagination. Well-prepared for a short war, the British failed correctly to assess virtually every aspect of the war that actually took place. At the tactical level they were reasonably ready, but they did not anticipate the grand-strategical aspects of a war involving all the great powers. "Because the actual conditions of the military and naval conflict had not been foreseen," Kennedy concludes, "there had been anticipated neither of the manpower demands which a prolonged struggle with Germany would produce nor of the economic and industrial impacts of those changed strategic conditions—no anticipation, in other words, that the conflict

. . . would entail a massive loss of life and resources and a revolutionary alteration of the practices and assumptions of the peacetime Edwardian political economy."

If the British failed to imagine what they were getting into, the Austrians failed to execute reasonably well-laid plans. Norman Stone's piece on Austria-Hungary suggests that intelligence contributed little to the disaster that befell the Central European monarchy in the shape of the Great War. The military leadership had good sources of information and understood the information it received. But when plans went awry, intelligence was not enough.

Readers will go first to the subjects that interest them most among the 16 chapters that make up this book, but everyone interested in the historical dimension of contemporary national security policy should consult John Erickson's "Threat Identification and Strategic Appraisal by the Soviet Union, 1930-41," which makes remarkably skillful use of fragmentary and unyielding evidence. Black-humor buffs will appreciate one episode Erickson recounts. When in May 1941 Marshal Georgii Zhukov reminded Joseph Stalin of the alarming strength Soviet military intelligence had established for German forces along the Soviet frontier, Stalin merely replied "You can't believe everything in intelligence reports."

An especially welcome feature of *Knowing One's Enemies* is May's masterful summing up of its contents and the lessons to be drawn from it. They are not, in the main, happy ones.

First, he suggests, the type of organization appeared to have little bearing on the quality of intelligence assessment; continuity counted for more than form (or, if it ain't broke, don't fix it). Second, all intelligence agencies were better at making short-run predictions than long-run projections; they were best, surprisingly enough, at providing military warning. Third, governments were very poor at seeing things from the standpoint of another government, *viz* mistaken American assessments of the intentions of the Japanese. Fourth, governments failed to ponder the ostensibly foolish question, "Who is the potential enemy?" One of many examples is the difficulty Imperial Germany put itself in by its inability to decide whether or not England was the chief foe. And fifth, and perhaps most important, "widely accepted presumptions were often quite wrong. Though they rested on flimsy foundations, they were extraordinarily resistant even to question, let alone to serious challenge. Every case . . . shows analysts or decision-makers gripped by beliefs which turned out to be baseless."

Precisely because they are so disquieting, the conclusions to be drawn from this book make it essential reading not only for students of the period in question but for anyone interested in policy and strategy today.

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Santa Barbara

Cockburn, Andrew. *The Threat: Inside the Soviet Military Machine.* New York: Random House, 1983. 338pp. $16.95

Andrew Cockburn has managed an unusual feat. He has written a book about the Soviet military that probably enrages policymakers in both the US Department of Defense and the Soviet Ministry of Defense. Cockburn's central thesis is that Soviet military capability is vastly overrated in the West. He takes great pains to discredit not only the Soviet military establishment, but also those Free World analysts who suggest that the Soviets are a first-class offensive threat.

The Threat is the outgrowth of an earlier project Cockburn produced for The Public Broadcasting System (PBS) entitled "The Red Army." The PBS film (originally aired 6 May 1981) received such favorable attention that Random House commissioned the more detailed treatment that became the book.

Cockburn's credentials and personal background are almost as interesting as his narrative. He is an Anglo-Irish aristocrat, raised in Ireland and educated in Scotland and England. He has written for a number of British publications including *The Economist* and *Defense Week*. His specialty is military affairs, particularly weapons systems development. Cockburn comes by his literary and military interests through birth. His father was a popular novelist. A more distant forebear was the same Admiral Sir George Cockburn who put Washington to the torch during the War of 1812.

Cockburn's analysis of the Soviet "military machine," though thoroughly documented, is based mainly on anecdotal sources which focus on the poor quality of Soviet equipment, training and troop reliability. Cockburn's strength lies in the diligence with which he exploited his various sources and the wit with which he spins their tales.

His main failing is one of style, not substance. The tone of the narrative is unnecessarily condescending. This stylistic overkill is distracting and diminishes the impact of facts which speak for themselves. Throughout, it is clear that this book was written by a journalist with a point of view.

Most commercial threat literature falls into one of four, often overlapping, categories: rational actor analysis, requirements/mission analysis, bureaucratic politics analysis, and military-industrial complex analysis.

Rational actor models attempt to link cost-effective responses to objective threats. Mission analysis is similar to the rational actor approach except the origins of threat perceptions are expanded to include history, geography, tradition, and organizations. Bureaucratic analysis emphasizes the competition among military services and military-industrial interests. The military-industrial complex approach tends to emphasize the role of cooperation and collusion among military, political and industrial interests.

Cockburn's explanations of Soviet arms behavior incorporates elements

of both the bureaucratic competition and the military-industrial collusion schools of thought. Unfortunately, these explanations, or any expositions of Soviet motives, are ironically similar to the arguments of the threat inflators. They are alike to the extent that they all make that giant leap from military capability to motives. The "why" of the Soviet "military machine" could not be extrapolated from even a perfect understanding of capabilities (or lack of them). These are separate questions that require very different evidence.

In all fairness, Cockburn is neither better nor worse than his "inflation" colleagues when he strays into the thicket of explanations. Yet, he is at his best when he stays with his lucid exposure of the flaccid side of Soviet power. Here Cockburn makes a valuable contribution to the literature of threat. Most previous contributions to this genre focus only on the more obvious lore of comparative strengths. Cockburn does a credible job of plumbing the murkier and less savory depths of weakness.

His arguments for the dark side might have been stronger still had Cockburn taken the trouble to distinguish between weaknesses and vulnerabilities. Russophobics might be titillated to know that Soviet soldiers drink too much or that many Slavic officers are bigots. The impact of these or related sociological problems on military performance is at best uncertain. Further, neither these nor similar revelations are likely to be exploited by the West. Weaknesses may be embarrassing but they are not necessarily vulnerabilities. And when they are not, they only add color, not weight, to comparative threat arguments.

On balance, Cockburn's preoccupation with the lurid side of the Soviet military is always amusing and only occasionally irrelevant. If nothing else, the seamier side of conventional wisdom makes good reading.

G. MURPHY DONOVAN
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Wolfe, Robert, ed. *Americans as Proconsuls: United States Military Government in Germany and Japan, 1944-1952*. Carbondale and Edwardsville: Southern Illinois University Press, 1984. 563pp. $27.50

This collection of essays emanating from a symposium convened at the Smithsonian Institution is a mixture of personal reminiscence and historical analysis, which contributes both to the book's strength and to its weakness. The weakness, of course, as is true for so many such edited compilations, is that the chapters are uneven at times not only substantively but also in the definition of their content. The strength, which outweighs the weakness, is that the authors are for the most part authoritative, partly because time is taking its toll on the availability of some of the key players of this unique period of American history.

To grasp the significance of our becoming an occupying Power and, although our predilection toward

interventionism in Asia stands as a sharp contrast, we can only be reminded of the reluctance of the United States to intervene in wars in Europe at all. To grant virtually supreme governing authority over Japan to a single individual (even though acting on behalf of his government) was also historically significant.

The retrospective view is that for both Germany and Japan, our efforts at rehabilitating populations and governments that had "gone wrong," proved remarkably successful. Therefore, it is useful to recall that at the outset of these enterprises, success was by no means guaranteed. It took the intermixture of unusual personal, political, military, and economic leadership with the overwhelming power that the United States had at its disposal over its defeated enemies to draw success out of potential failure. An example of the general uncertainty, if not confusion, of the times is given by Ambassador Jacob Beam in his reminiscence concerning Germany:

"When the surrender finally came, the terms which we had drawn up and had been approved at Yalta had somehow been forgotten. I think the United States Army's excuse was that it was a Combined Chiefs of Staff document which had been communicated without specific authorization of the United States Joint Chiefs of Staff. The resultant 'short surrender terms' were actually improvised by Winston Churchill and General Eisenhower late at night. On May 7, they scared up a Russian general to sign these terms. Thereafter, that signatory, General Souslaparov, disappeared completely. Following the surrender, the terms which we drafted in London were finally proclaimed and became the basis for our legal actions in Germany."

For the historian of this important period in our national history, as well as the general informed public, this combination of personal recollections by persons—who either played a direct role at the time or had access to the papers and documents of those who did—will prove interesting reading.

ROBERT S. JORDAN
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Johnson, Ural Alexis with McAllister, Jef Olivarius. *The Right Hand of Power.* Englewood Cliffs, NJ: Prentice-Hall, 1984. 634pp. $24.95

Ural Alexis Johnson was one of the most successful American Foreign Service Officers in the post-World War II era. His memoirs recount his odyssey from birth in Falun, Kansas, in 1908 (the unusual first name was his mother's way of hoping that the world would hold more for him than the Great Plains) through apprentice assignments in Tokyo, Seoul, Tientsin and Rio to the ambassadorships at Prague, Bangkok and Tokyo, as well as posts as Under Secretary for Political Affairs and chief US negotiator for SALT. In East Asian affairs, particularly, much of US diplomatic history is encapsulated and expli-

cated in these memoirs. Some reputations suffer—Eisenhower is not the decisive leader recent books show him to be. Bedell Smith is given recognition for the first-rate job he did at the State Department following his admirable career as a soldier.

Needless to say, these memoirs are invaluable for the record of foreign policy after 1945. Johnson says he is not "a teacher or reformer" and, hence, he is merely telling how these things looked to him. The problem is that the reader misses discussion of policy. There is more than a reminder of those 19th and early 20th century almost proconsular British ambassadors who wanted nothing to do with policymaking; like Bismarck, they thought diplomatic history was what one clerk said to the other. Tell them what was to be done and they would do it; flattery, bribery, threats, patient exposition, good food, even better wine and perhaps a little blackmail; these were their bag. All that business about power balances, strategic interests, GNP and trade could be worked out by those "chappies back in the office who swot up such matters."

The real loss is that the undoubted expertise of these men tends to fall out of the equation. Johnson's preface states that his job was "getting things done." No one can fault him for this but it is equally importaut that the right thing get done. Johnson's experience told him, for example, that the China "card" was a fallacy, that the Haiphong miniug would not affect the NVA in the South, that the Pentagon's "we have them and they don't" attitude was fatal for SALT, but he went along trying mainly (and often quite successfully) for damage limitation. The problem may be institutional: should career officers fill ambassadorships and second and third-level policy jobs? Would a president, a secretary of state or a national security adviser take more account of a cold and frank recital of objections to a proposed policy if that advice were coming from an experienced officer who was not expecting preferment from the administration? Johnson's modest recital may obscure the times he did do this. There certainly can be no doubt that his low-key, self-effacing memoirs show that he deserved well of the Republic. And, no one will be able to write a history of US foreign policy in the era of its greatest influence without first checking with *The Right Hand of Power.*

J.K. HOLLOWAY
Naval War College

Kennan, George F. *The Fateful Alliance: France, Russia, and the Coming of the First World War.* New York: Pantheon, 1984. 300pp. $19.95

Dean Acheson used to say that whenever he read a paper by George Kennan he would first set it aside for a day or two before making any decisions. Keenly insightful, Acheson was all too aware that the power of Kennan's argumentation was so great that it made any concern about correctness irrelevant. The brooding introspection and scholarly hauteur of the State Department's first director

of policy planning, however, soon taxed even the patience of this most intellectual of postwar cabinet officers. Acheson and others recognized that Kennan's gifts would be far better applied in the university than in that peculiar sort of bureaucratic infighting without which no great foreign office, it would seem, can exist.

Since leaving a quarter century of diplomacy in the early fifties for Princeton, Kennan has produced some 15 books on the Soviet Union, the nuclear issue, and diplomatic history. His widely acclaimed memoirs, some of today's historians now recognize, are deeply flawed. It is not always the case that the most articulate actor is also the most influential. If those two volumes were inordinately self-serving even for that dangerous genre, Kennan has now more than compensated the historical community by offering two other volumes which superbly chronicle Europe's slide into the First World War. *The Fateful Alliance* completes the story begun in *The Decline of Bismarck's European Order* by explaining the creation of the Franco-Russian concordant, an agreement destined to play an important part in determining the alignment of forces in the coming war.

The step-by-step analysis of the diplomatic maneuverings between Paris and Petersburg during 1890-94 is presented with uncanny lucidity. The eventual agreement recognized that if Germany and its allies in the Triple Alliance should even mobilize partially, France and Russia would swing immediately into hostile action. And if one were attacked, then the other would respond in such a manner as to force the Germans to fight a two-front war. This story could easily have been a dry historical narration. But readers are gripped by the timeless fashion in which Kennan relates the origins of the documents that constituted the written and contractual expression of this alliance. How could the nations be so oblivious to political objectives while seeing military actions as sufficient to all purposes? Such things as the different spirit and ideals of the two government systems certainly did not come into play. Instead, only a tiny body of expertise and judgment was used to commit the fate of Europe for 20 years to come.

The darkening cloud under which these formulations occur is, of course, that of the Great War—imagined in its inevitability as a limited conflict which might redress the various events of the 1870s and 1880s, among them the Franco-Prussian War, the Russo-Turkish War, and the domination of European diplomacy by Bismarck. Although the alliance was already backward-looking by the time that it was formalized, for the military establishments it was one directed very much toward the future. It was a future that assumed the overwhelming probability of war, and thereby assured its occurrence.

Much of the elegance of Kennan's writing—whether in the archives, his memoirs, or in these histories—comes from his skill for capturing the private stirrings and ambitions of key personalities. The portraits that he draws of Giers, the Russian foreign minister, and of Charles de Freycinet, the

French minister of war, among many others, make for epic tragedy. Knowing what inspired the alliance and led to its conclusion, Kennan relates, can tell us much about the pitfalls waiting for statesmen who try to look far into the future while trying to meet imagined contingencies through solely military devices. His own mastery in understanding the infighting at the Quai D'Orsay and at the foreign office building at the Singers' Bridge—as well as his feel for the national passions which drove policy—are ultimately ironic in light of his own failures in a not dissimilar environment a half century later.

The book is intensely personal throughout, a characteristic of all of Kennan's writings and certainly the greatest source of their strength. So it is no surprise when the lessons for today, which even the greatest historians always feel compelled to make explicit, scold us for the same love of the intricate, the oversubtle, and the allusive that crippled the political reactions of the late Victorians. The consequences of nationalism and the way that it dovetails with the hopes and anxieties of soldiers pledged with planning victory in essentially purposeless wars, we are told, are predictable. And modern technology will this time not permit even the semblance of prewar civilization to survive.

Tendentious warnings of the apocalypse—no matter whether the subject is nineteenth-century diplomacy, Marshall Plan financing, or current superpower relations—is the price that one has to pay for reading Kennan. Acheson knew that it was usually worth it. And one can easily agree in this case.

DEREK LEEBAERT, Deputy Director
The Eisenhower Institute
The Smithsonian Institution

Hagan, Kenneth J., ed. *In Peace and War: Interpretations of American Naval History, 1775-1984*, 2nd ed. Westport, Conn.: Greenwood Press, 1984. 395pp. $29.95

Anthologies invariably suffer from unevenness, in spite of their editors' best efforts to standardize breadth and depth of content, length of bibliography, and writing style. That Professor Hagan of the US Naval Academy history department was generally successful in this 1978 book is borne out by this second edition, with one chapter added as an update. The only serious discontinuity within the work is a divided approach between the authors; some write to cover the Navy's overall activities as if this were a textbook, while others are selective in order to fulfill the stated interpretative theme of the work. So *In Peace and War* is too uneven for use as a survey course textbook but superlative as a supplementary or seminar reader.

Especially admirable is the brevity of each chapter, no doubt forced upon the authors and which led all but one of them to write clearly and concisely and usually with a minimum of footnotes. The exception is Geoffrey Smith's chapter on the pre-Civil War bureau-run Navy. It is verbose, redundant of material in the previous chapter, overloaded with

quotations of other historians, and burdened with expendable social history at the expense of more important matters like the activities of the Navy's several overseas squadrons. Also, some of Smith's points are arguable, notably his assertion that the age of seadogs had waned just because the last War of 1812 veterans faded away. In fact, seadogs of the era flourished—to name but a few, Foote, McDougal, Rowan, Walke, Wilkes and Winslow; how about Semmes?

James Bradford's treatment of the Revolutionary Navy is sound, save for its virtual neglect of the French victory at Virginia Capes which assured US independence. Linda Maloney's discussion of the War of 1812 is especially fresh (though her slang is not), showing realistic choices facing the Navy's commanders. Having two separate chapters on the Union and Confederate Navies was a good idea, but unfortunately neither are very interpretative, the first disjointed and containing errors of fact, the second dealing only with Southern naval diplomacy.

The essay on the post-Civil War Navy by Lance C. Buhl is one of the best, stressing the Navy's acceptance of its continentalist role, while the chapters taking the story up to World War II carefully weave together the interplay of political, economic and diplomatic forces with naval policy. The description of the German surface fleet in World War I as a "fleet-in-being" is imprecise though a common misuse of the term. (Admiral Torrington coined the phrase to mean a fleet that ultimately takes the offensive, while Mahan labeled fleets like Germany's—but especially Russia's—as "fortress fleets.") The role of electronics to the treaty navy is new in the general literature, thanks to author Philip T. Rosen, though he errs in assigning America's pre-World War II submarines to commerce raiding roles. Before Pearl Harbor, their prime targets were warships.

"The Navy Plans for War, 1937-1941" by John Major is a model of good interpretative historical writing, using important primary as well as secondary sources to show the revolution that created the truly global US Navy and, incidentally, to give high marks to CNO Admiral Harold R. Stark. Robert W. Love's treatment of World War II is a tight first-rate overview of wartime naval policy, administration and strategy which could have been subtitled, inevitably, "The Ernie King Story." Dean C. Allard's chapter on the postwar Navy is perhaps too short and makes a serious omission in neglecting the role of Admiral Forrest Sherman. Though somewhat redundant, the essay by Floyd Kennedy on the Eisenhower years is especially well-balanced, including the oft-neglected P6M Seamaster strategic flying boat/bomber and reminding us of the first Lebanon crisis. Kennedy also authored the very up-to-date final chapter, which traces the Navy's change from its assigned role of commerce protection under Jimmy Carter to the current expansion under Ronald Reagan.

So anti-Carter and pro-John Lehman is author Kennedy that this reviewer has to wonder why Naval Reservist Lehman had a better sense of strategy than Naval Academy regular Carter. Even more disturbing is Lawrence J. Korb's essay on "The Erosion of American Preeminence, 1962-1978," disturbing in its almost total neglect of the Vietnam War in the interest of gauging virtually all the US Navy's missions in terms of Russian naval strength. Korb is so preoccupied with ship counts and statistics that he writes downright weak history, judging the Vietnam experience—a valuable one for the Navy operationally—in light of the interruptions it caused to shipbuilding programs! The only poor essay in this otherwise meaty collection, it deserves to be replaced in the next edition.

The book's chapter bibliographies are generally good, though that on World War II should not be half as long as the one on the American Revolution. The illustrations, while satisfactory, are not necessary or helpful in a book of interpretative readings; charts illustrative of the text would have been more useful.

CLARK G. REYNOLDS
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Breemer, Jan S. *U.S. Naval Developments.* Annapolis, Md.: Nautical and Aviation Publishing Company of America, 1983. 288pp. $19.95

As the introduction of this book points out, there is a gap in the literature on the US Navy between basic reference books that catalog ship and aircraft characteristics and those that analyze the history, missions and organization. This short volume, split almost equally between these two tasks, goes a long way in trying to fill that void.

Undoubtedly, the most interesting parts of the book are the six chapters of analysis. In Chapter One, "Shaping the U.S. Navy," Jan S. Breemer lists such various items from threat to the three "unions" in the Navy (i.e., air, surface, and submarine) to technology innovations. Chapter Two on the "Evolution of Navy Strategies and Forces," is essentially a brief history from World War II. Chapter Three covers the "Organization: Administration, Operations, Forces, and Missions" but also includes such sections as "Big Guns: How Useful?" "Designing and Buying Warships" is the topic of Chapter Four with Chapter Five on "Matching Up Ships with People." Finally, Chapter Six on "Today's Issues for Tomorrow" concentrates on three topics: large versus small carriers, naval war or nuclear war, and Navy-Air Force collaboration. All tolled, a wide range of issues.

The second half of the book is taken up with familiar weapon system characteristics: Ships and Submarines; Aircraft and Helicopters; Weapons and Weapons Launchers; and Electronic and Acoustic Equipment.

There are, of course, a few mistakes. The figure on Cost Trends for Major U.S. Navy Warships has the axis mislabeled, which causes a little confusion at first. The author states

that CincPac also wears the CincPacFlt hat whereas it is CincLant and CincLantFlt who is dual-hatted. The appendixes show some old pictures and the three *Barbel*-class submarines are listed as SSNs although the description does say correctly that they are diesel. In the appendixes only the lead ship of each class is named. While it might be justifiable not to name all destroyers or frigates, names of all capital ships should be listed. More important is a complete lack of dates. Anyone truly wanting to know about ships wants to know their commissioning dates.

But, there is another problem with this book: it lacks focus. Breemer cannot seem to decide who his audience is and thus while the book is probably too sophisticated for a layman or even a national security expert unfamiliar with Navy problems, he offers opinions that might cause him to lose the confidence of a naval expert. For example, while he correctly explains the three Navy unions as among the factors that shape the Navy, he goes on to state, that making nuclear submariner Admiral Watkins the CNO "seemed tantamount to having the Pope run the White House!" Many naval experts would also question whether the three issues in his final chapter are really the main issues today. Probably they are not. Mainly, his problem is trying to cover too much in too little space. However, he does seem to at least touch most main issues and he offers some very interesting charts and tables.

DR. JAMES L. GEORGE
Center for Naval Analyses

Friedman, Norman. *U.S. Cruisers, an Illustrated Design History*. Annapolis, Md.: Naval Institute Press, 1984. 492pp. $46.95

Norman Friedman has aptly demonstrated that there have long been strong and lengthy debates on what kinds of ships we should build, in this case cruisers. His treatment of the sometimes seemingly endless back and forth between operator and designer is instructive and sometimes a little amusing. It demonstrates clearly that those are not entirely correct who would hark back to yesterday as a time when ship design iterations were far fewer and less lengthy than they are today. Perhaps they were fewer because now we have computer synthesis models, but the old process was no less lengthy.

The operator customer will always want and should get the most he can for each dollar invested, and this requires the sometimes extensive process of give and take. The constraints vary, the width of the Panama Canal, the depth of water over drydock sills, treaty limitations, cost caps, or whatever; plus the naval architect is always required to explore the space within these limits to produce the "best ship" possible.

Considering how long it takes to design and build a complex warship today, we often tend to reflect on how much longer it takes today than years ago. Yet it is interesting to note that the cruisers built during the war had their design origins prior to the war.

Congressional delays for shipbuilding programs in the 1930s occurred

for obvious fiscal reasons. However, the constraints imposed by treaty limitations led to inferior ships and adherence to these limitations continued when the potential enemy, the Japanese, had long since violated them. Our intelligence, or rather lack thereof in those days, is frightening. There must be a lesson for us here in our current arms limitation talks. Arms limitation only makes sense when both parties are honestly trying to avoid war and when verification is adequate.

Numerous lessons are to be learned from Friedman's extensive treatment of cruiser design decisions:

- Invariably there is disagreement among operators as to what kind of ships we should build for the "next war," and the ability to foresee new tactics based on the availability of operating new technology is crucial to success in the next war; e.g., prior to World War II cruiser guns were considered by those in power, more important as offensive weapons than torpedoes, but only in the US Navy. Did our cruisers benefit thereby?
- Even a well-protected ship can be overpowered by a well-trained enemy using the element of surprise, as evidenced at Savo Island.
- We are always under pressure from Congress to do more for less. This is as it should be, but while a lower price is easy to get, a better ship is hard to get. We should not build inferior ships.
- In wartime we will be stuck with our peacetime decisions, e.g., the *Wichita*, a cruiser built so close to the margins that she could not accommodate many improvements necessary for her efficient use in war.

Finally it is amusing to note that as early as 1930 some admirals, for example Thomas C. Hart, felt we had too much habitability in our ships.

REUVEN LEOPOLD
Vienna, Virginia

U.S. Navy Shipbuilding Program: Marketing Opportunities and Contracting Requirements. International Maritime Associates, 1983. $380

Prepared by a Washington-based management consulting firm and designed to analyze marketing opportunities associated with new ship acquisition and major conversions, this ambitious "report" provides a cookbook approach to hurdling the traditional barriers to entry of the shipbuilding industry.

The organization, layout, and use of graphics closely resemble internal Navy documents: double-spaced, bulletized format, an executive tone that promotes fast absorption of salient facts, and a liberal sprinkling of the acronyms peculiar to DoD procurement and the shipbuilding trade. Divided into broad chapters—"The Navy Program," "Navy Organization and Program Development Process," "Navy's Ship Acquisition Process," "Selling to the Navy," and "Points of Contact"—and further broken down into topic elements, the fast-moving text proceeds logically. Though including new acquisitions and conver-

sions managed by the Military Sealift Command (MSC) and Maritime Administration (MARAD), the focus is slanted principally to the US Navy.

"The Navy Program" surveys Navy force levels and the ship acquisition plan, as it was in 1983, forecasts industry workload and overviews individual platform programs ranging from the mammoth CVN through the experimental LPDX and MSC T-5 tankers to the small workboat line that included 100 14-foot punts. The platform presentation is very general and appears to have been prepared for a lay audience rather than prospective shipbuilders: ship characteristics include little more than the basics of size, major equipment, funding, and current building programs. Critical propulsion, construction, and armament details are not addressed. In "The Navy's Ship Acquisition Process," the reader is exposed to the formal choreography of ship acquisition planning and execution, a lethargic process that may take as long as 10 years. Because procurement is tied directly to congressional action, this is where the orderly process often bogs down, where design changes are prohibitive both politically and economically and the reason why many of our ships are not "state of the art" when they slide off the ways. "Selling to the Navy" is perhaps the most useful section of the text where bidding and contractual details, provisions for small business set-asides and the "Buy American"/Nato offset balance is explained.

Supporting appendixes include a short paper on PPBS, a listing of principal source documents produced by DoD Navy, and copies of appropriate forms for potential government contractors. The list of prime government contractors gives mailing addresses, telephone numbers, and principal functional focus (e.g., design, propulsion, combat systems, etc.). However, the appendixes add little more than bulk.

In general, the text is uneven in level of detail, based on many internal Navy plans that are dated, and of little value to established shipbuilders. For a new shipbuilder, the report falls short of its promise and is laced with pronouncements such as: "The Navy market is complex, particularly to new players. Timely entry, knowledge of procurement procedures and rules, balanced sales coverage, and holding power over a lengthy contracting cycle are necessary ingredients to sell in this market." True enough, but the barriers to entry remain, and the challenge to established shipbuilders is no more pressing with this publication.

While the usefulness of the text is limited as a guide and a reference, the complexity of the industry, the MilSpec maze, and the facts of political pressure are captured with sufficient accuracy to make one wonder if there is a better way to build ships in peacetime. Further, what will be our capacity in war? Of course, the existence of such a study (even if overpriced at $380) should give pause to those in the procurement end of shipbuilding. The industry is actively targeting opportunities and shipbuilders will fight for their share

of the "new construction pie." In the marketplace, "caveat emptor"—let the buyer beware—is sure to take on greater significance in the future.

J.P. MORSE
Commander, US Navy

Kennedy, Paul M. *The Rise and Fall of British Naval Mastery.* New York: Crane, Russak, 1983. 435pp. $14.50

This book, first published in 1976, is a sweeping examination of British seapower that compares favorably with A.T. Mahan's classic work, *The Influence of Sea Power on History*. Dr. Kennedy has managed to write the first definitive post-Mahanian work on the way a nation's maritime power blends with its global influence. In bringing out this paperback edition, the publisher has wisely asked the author to include an introduction that updates the work through the end of the Falklands crisis and adds some provocative conclusions on the state of the Western alliance and its maritime capabilities.

The style of the book is totally accessible to the average reader. The author has avoided must of the dry, highly technical writing that flaws many works of history and strategy. His writing is lucid, interesting, and occasionally clever and witty. The obvious theme of the work is the flow of history that surrounded British seapower and its influence on that country's global power position. The volume is illustrated with a series of simple line maps, and includes a superb bibliography and excellent references and notations.

It is easy to see that the author does not completely agree with A.T. Mahan. Rather than accepting the basic Mahanian thesis that a maritime nation's greatness is inextricably linked with its seapower, Dr. Kennedy demonstrates the importance of balanced seapower and landpower. Through a sound grasp of history, he further illustrates the critical importance of a nation's economic strength as underpinning its global power, and thus explains the fall of Britain. Indeed, this is the central theme of his work. More interestingly for US readers of the work, the author discusses the comparisons between late 19th-century Britain and contemporary United States. He ends with a call for a coherent US maritime policy that should be "developed as a whole, with the possession of warships sensibly related to those geopolitical, technological, economic and diplomatic elements which must be woven together before a coherent national policy exists." This is sound advice, and well illustrated throughout this fascinating book.

Overall, the work is a classic. It places Mahan in proper modern perspective, discusses the long-debated issues of maritime and continental strategies with the deep perspective of the historian, and yet remains lively and readable throughout. No library of maritime affairs or naval strategy should be without this work.

JAMES STAVRIDIS
Lieutenant Commander, US Navy

Murfett, Malcolm. *Fool-Proof Relations: The Search for Anglo-American Naval Cooperation During the Chamberlain Years, 1937-1940.* Singapore: Singapore University Press, 1984. 324pp. $22, paper $17

Books dealing with strategic assessments and war plans of the past are both fascinating and fantastic: fantastic because, seen from the perspective of subsequent events, much strategic planning seems impractical, even surreal; fascinating because, despite ourselves, we cannot help but wonder how our world today would be different if any of these plans of long ago had been implemented. Such a book is Malcolm Murfett's *Fool-Proof Relations: The Search for Anglo-American Naval Cooperation During the Chamberlain Years, 1937-1940.*

The theme of the book is that, as the 1930s unfolded with increasing menace, Britain's fear of a tri-ocean war versus Germany, Japan, and Italy, with only France as an ally, forced her toward Anglo-American naval cooperation—especially in the Pacific—as the best means of coping with that strategic nightmare. The author's main point, a revisionist one, is that Neville Chamberlain, despite his acknowledged anti-American sensibilities, nevertheless laid the strong foundation of Anglo-American naval cooperation that Winston Churchill later so skillfully built upon.

Basically, this is a good and interesting book. Murfett's research, especially in British sources, is superb; his judgments are plausible and usually persuasive.

But the book also has limitations. Its predominant focus is British strategy and naval policy; American naval thought is not explored in any depth. Hence, Murfett's is but one side of the complex story of Anglo-American naval collaboration in the 1930s. Also, like many books of this genre, it seems too abstract, because the war planning is insufficiently related to the strategic and tactical realities of naval power. There is too much discussion of the quantity of fleet units that the United States and Royal Navies were able to deploy in the Pacific versus Japan at any given time; and little or no discussion of the quality of those units, the efficiency of their ships, weapons, training, and logistical support structure. Naval strategy must be based on naval strength, but naval strength is more than numbers; it is also combat efficiency. The naval planners of the 1930s were unable or emotionally unwilling to address such vital imponderables, which is why much of their planning seems infeasible; but it is possible to render such judgments today, and Murfett's book would be a better one had he ventured to do so.

Finally, it should be noted that some of the author's conclusions are highly provocative. For example, he believes that Anthony Eden was quite willing to bring about a preemptive Anglo-American naval war against Japan in 1937-38, an idea which will seem to many to go well beyond the bounds of the available evidence, yet one which Murfett presents plausibly. He also argues that Britain shied

away from closer relations with Russia in 1939 for fear of provoking Japan; but most historians would contend the opposite, that a rapprochement with Russia would have strengthened Britain's strategic position immensely by helping to deter Japan. Similarly, some would argue that Murfett's book tends to exaggerate the strength of the desire of the British government for closer strategic and naval cooperation with the United States and rather underestimates the lingering desire in those circles for a rapprochement with Japan instead. But these disputes make for more interesting scholarship.

Murfett's book is a reminder that much strategic planning is essentially unrealistic and impractical; this is because the planners lack comprehensive knowledge, of their own forces as much as of the enemy's, and because the strategic problems addressed by them are really *insoluble* in light of the limited military and naval means available in peacetime. Hence prewar plans are largely doomed to be overtaken and swamped by the relentless tide of events.

PATRICK ABBAZIA
City University of New York

Winton, John. *Convoy: The Defence of Sea Trade 1890-1990*. London: Michael Joseph, 1983. 378pp. $27.95

John Winton retired from the Royal Navy in 1963 and started his writing career with a series of hilariously funny novels based on his training and early days in the Service. Since then, he has moved on to historical novels and biographies of Sir Walter Raleigh, and Admiral of the Fleet Earl Jellicoe. In *Convoy* he has set himself the task of describing the defense of sea-trade from 1890 and of taking a peek into the future. The book concentrates largely on the Atlantic experiences of two world wars and on the submarine threat. Within these confines he has produced a comprehensive history into which he has woven, as an expert storyteller, many personalized experiences.

Escorted convoy was accepted as the successful method for the protection of trade in the 18th and 19th centuries. However, by 1914 the Admiralty viewed it as unnecessary because of the sea-control capability of powerful and modern warships, and unworkable because of the introduction of steam—for some unexplained reason it was felt that steamships would be less capable of maintaining station than sailing vessels. There were also strong arguments against convoy based on port congestion, and on the reduction in overall carrying capacity of merchant ships resulting from convoy formation and reduced speed. But these arguments rested on the assumption that ships were not being sunk.

Winton relates how it took nearly three years of war, and the loss of millions of tons of shipping and thousands of lives before trans-Atlantic convoys were finally introduced by an Admiralty that wanted offensive action against U-boats and considered convoy to be defensive.

Strong opposition to convoying also existed in the United States and in May 1917 the Navy Department still held the almost atavistic view that "big convoys meant big risks." But within a month, Admiral Sims (who incidentally was the first American to have Royal Navy ships under his command, based at Queenstown, Ireland) wrote to the Secretary of the Navy that "the convoy system should be put into immediate operation . . . thus forcing submarines to encounter antisubmarine craft in order to attack shipping."

Implementation of the convoy system led to both a considerable reduction in the numbers of merchant ships and an increase in U-boat sinkings. By mid-1918 it was clear that introduction of convoys escorted by surface craft and where possible by aircraft, had avoided defeat for the Allies. In one of the last U-boat incidents of WWI, U-68 was sunk by gunfire in the Mediterranean wbilst attacking a convoy. Its commander, Karl Doenitz, was taken prisoner.

The hard-won lessons of World War I were collated and published in 1918 in a confidential book entitled, *The Elements of Convoy Defense in Submarine Warfare.* But after 20 years of peace the convoy was again out of fashion in some circles, and this valuable but little read document was declared obsolete in 1939 and ordered to be destroyed.

In the chapters dealing with WWII Winton takes us through the learning, or relearning, of many lessons and the development of anti-U-boat warfare. He emphasizes the importance of airborne units, especially those equipped with radar and Leigh lights as being particularly effective, describes the development of tactics/strategy and the improvements in sensors and weapons, and highlights the major contribution to both sides of high-frequency D/F and crypto analysis.

He illustrates his account with many examples of successful and unsuccessful convoy operations, examples which, although well narrated become a little repetitive and do not always seem to follow a chronological sequence. He also cites many statistics proving the worth of convoy. The book would be all the more readable had these been rabulated outside the text.

My only other complaint with the book is that Winton makes too frequent use of the epithet stupid to describe those who opposed convoy. In the brilliance of hindsight it is clear that the admirals were mistaken, misguided or misinformed; but they were not necessarily stupid.

Overall, the book is a generally happy mixture of comprehensive historical account and well-told descriptive war stories. Winton reports a worrying tendency in recent years for the reappearance of the "sea lanes" heresy and he sees his role as reminding his readers of the lessons of the past. He has performed this task thoroughly and well.

ANTHONY R. PETERS
Commander, Royal Navy

Beaver, Paul. *Encyclopaedia of the Modern Royal Navy.* Annapolis,

Md.: Naval Institute Press, 1983. 330pp. $29.95

The *Modern Royal Navy* presents an excellent comprehensive snapshot of the Royal Navy as it existed during the last half of 1982. The Falkland Islands conflict occurred during the final stages of its preparation and as much information as possible from that conflict has been incorporated.

The author, who has specialized in British naval subjects in a number of previous books, covers everything one would want to know at the unclassified level about all aspects of the Royal Navy—organization, post-war history, equipment, bases and personnel. In the process Paul Beaver presents an impressive picture of just what constitutes a modern medium-sized navy. Such an organization goes far beyond just its ships, aircraft and missiles; relying ultimately on the personnel manning these systems, their training and their organization, points made by both sides during the Falklands incident.

The book starts with a summary of post-World War II British naval history. It includes tables of RN deployments and operations as well as a list of major events in the RN since 1945. This is followed by a review of the Royal Navy's current roles and missions which, though greatly reduced in forces committed, are still worldwide. However, primary emphasis, now through a single fleet command (CinCFlt), is on the defense and control of the North Atlantic around the GIUK gap and in the Norwegian Sea. Coupled with this responsibility is their SSBN nuclear deterrent, at least one submarine of which is always at sea. There is a brief description of the Warsaw Pact threat, the only time it is mentioned specifically in the book. The Royal Navy's organization is described specific office by specific office, generally at the flag-rank level. This plus other sections on similar subjects (i.e., RNVR and Royal Marines) could be presented more clearly than has been done with the aid of more organization charts. The dockyards are covered and are shown graphically on a map of England and the naval shore establishments are reviewed. There are also three naval colleges. All this material, that would be difficult to find elsewhere, is provided in 70 pages.

The author devotes the next 230 pages to the Royal Navy's ships, aircraft, Marine equipment, the auxiliary services, weapons and sensors. This is arranged a bit differently than usual, with technical details on each class of ship and short operational summaries of each individual ship. Aircraft are extensively covered by squadron and type. Included are excellent, accurately prepared but simple 1/600 scale starboard profiles of each major ship class and 1/72 scale profiles of most Royal Navy aircraft and vehicles. Missile descriptions include non-scaled drawings as well. All of this is supplemented by numerous photographs, most of which are very good. Many show equipment detail beyond what can normally be found in other reference works. All are accom-

panied by use descriptions, operationally oriented, which are excellent since they go beyond the normal bare equipment statistics.

The final 20 pages deal with the uniforms and insignia of both the Royal Navy and the Royal Marines. A table covers the various forms of naval dress from Number 1 Full Dress to Number 12 Short Sleeve order. Included also are officer insignia, petty officer cap badges and branch (service specialty) badges. Even the Women's Royal Naval Service (WRNS) and Queen Alexandra's Royal Naval Nursing Service (QARNNS) are reviewed with insignia tabulated. A chart presents equivalent ranks between the RN, QARNNS and WRNS. Interestingly, the senior QARNN (Matron-In-Chief) and WRN (Commandant) are limited to commodore equivalent.

In summary, this book truly describes in layman's terms the modern Royal Navy and would be an outstanding addition to the library of anyone who needs a working knowledge of this particular navy. In that sense it is an operationally oriented encyclopaedia. Its biggest faulr is that the edition is now three years old and the information contained should be reissued periodically. It presents the Royal Navy in an upbeat manner and at a level of detail which would be difficult to find in any one public source. Considering the many reverses the Royal Navy has suffered over the past forty years, primarily in declining strengrh and reduced responsibility, this is remarkable. One hopes this will be the first of a continuing series on the Royal Navy by Paul Beaver. *Ships and Aircraft of the U.S. Fleet* uses a similar approach in describing the US Navy but with much less emphasis on support and training, and with more general descriptions of what is, after all, a much larger navy.

RICHARD F. CROSS III
Alexandria, Virginia

Denham, Henry. *Inside the Nazi Ring: A Naval Attache in Sweden 1940-1945*, London: John Murray, 1984. 174pp. £10.95

Captain Henry Denham is well known among yachtsmen for his indispensable series of guides to the Mediterranean, notably *The Aegean, The Adriatic, The Tyrrhenian Sea* and *The Ionian Islands*. Only recently has his naval career become known to rhe general public, first with his *Dardanelles: A Midshipman's Diary* and now, with his memoir of service as the British naval attaché in neutral Sweden. As Ludovic Kennedy notes in the foreword to this volume, "future historians of the Second World War as well as his many friends and admirers will be delighted that he has written this absorbing account . . . . "

For most of the war, Sweden was isolated from direct contact with Britain. After the German occupation of Norway and Denmark in April 1940 and with German forces fighting the Soviet Union in Finland, access was difficult. For a year, the British legation in Stockholm was almost entirely isolated with only

two circuitous routes open: via the United States and the trans-Siberian railroad or via the Cape of Good Hope, the Middle East and Russia. Despite the difficulty, Stockholm became a key outpost for British observation of her enemy. From that vantage point, Denham sent the first signal which alerted the Admiralty to the breakout of the *Bismarck* in April 1941. Later, he obtained information through Swedish intelligence which enabled him to warn of the German attack on Convoy PQ 17.

Much of the information in Denham's book is not new to historians, but it is an interesting "sea story" which makes a contribution by putting the issues into a personal perspective by explaining some issues which are better known in Swedish accounts than in English ones. Denham has added to his account insights from some of the most important historical studies, such as the work of Anthony Cave Brown, Donald McLachlan, Wilhelm Carlgren, and Patrick Beesley. For the most part, this has helped him to explain things with a broader perspective than he had during the war. In at least one case, however, this method has forced him into repeating Churchill's biased account of the landing at Narvik. At the same time, Denham has gathered some documents which enrich his account. He has taken a few samples of his own reports from the Public Record Office and Professor Carlgren has assisted with some documents from the Swedish Archives. In short the book is a partially researched history, fleshed out with a memoir. This makes for a highly readable account. The specialist, however, may well be frustrated by a desire to know more, to have precise references, names and dates. Moreover, he would wish more substantive accounts of conversations. It is frustrating indeed to learn that the author does not remember any detail of his 50-minute conversation with Admiral Raeder in 1937 and that his several meetings with the Soviet Minister to Sweden, Madame Kollantay, trigger only his recall of a few amusing pleasantries. Serious historians will find Denham's account neither a complete nor an in-depth study of British relations with Sweden. His account of the naval perspective from Stockholm during the war is equally light. His book, then, is a suggestive source rather than an exhaustive study.

Some of the questions which arise from reading this book may well lead to new insights in several areas. One would like to know if there is any foundation in Italian sources for Denham's account of the mysterious Mr. Walter's attempt to negotiate the surrender of the Italian Navy to Britain in 1940-41 using the British Embassy in Stockholm. Similarly, one wants to know more about what lies behind Denham's remark that among Allied naval attachés, "Sadly, the American naval attaché in Stockholm, was at no time any help to us, but at Gothenburg an excellent U.S. Consul General helped us through the war."

JOHN B. HATTENDORF
Naval War College

Lorelli, John A. *The Battle of the Komandorski Islands*. Annapolis, Md.: Naval Institute Press, 1984. 212pp. $16.95

This slim volume is a moving, factual account of a surface sea battle in an outpost of WWII (the Aleutians) with the odds significantly against the victor, the United States. More than to tactics, the victory is a tribute to good gunnery, damage control, guts and determination, with a generous dash of luck. Forty-two Japanese torpedoes, for example, had no effect on the engagement.

The volume is marred by its failure to develop an overall strategic and operational setting for the battle, and to present important tactical information and decisions as guides to the detailed action. There is no discussion of available submarines and aircraft at sea or on call to either side, no indication of surveillance, no mention of weather forecasting or possible weather influence on local decisions, and no summary of time and distance factors which might affect alternatives.

This shortfall is epitomized in the lack of any chart of the general area, except for that on the dustjacket, and in the poor technical validity of the figures depicting the battle. Each of five figures is in error in some important detail.

The book can best be characterized as a human interest story of some very brave American sailors. It is a fine collection of individual ship accounts and personal recollections tied together loosely by the general history of the event and the comments of the battle staffs. Certainly the stark tragedy of the cruiser *Salt Lake City*'s total loss of power, and her brilliant damage control action in returning to near-full fighting strength, her outstanding gunnery, the destroyers' brave near-suicidal attack on the Japanese cruiser line, the significant damage to the destroyer *Bailey* without quieting her fighting spirit, and the Japanese line finally turning away—all are first-rate adventure, well researched and well written.

In sum, this is a book for a specialized audience. It is a volume of interest to those seeking detailed information on particular ship types, or on US WWII sailors and their reactions to the adverse circumstances of cold, terror, and severe ship damage. It offers nothing new in tactical comprehension of *The Battle of the Komandorski Islands*, nor in appreciation of our force tactics—beyond the great merits of adequate battle training and perseverance in the face of all odds.

THOMAS R. WESCHLER
Vice Admiral, US Navy (Ret.)

Cunningham, Randy with Ethell, Jeff. *Fox Two*. Mesa, Ariz.: Champlin Fighter Museum, 1984. 154pp. $8.95

Where has this book been and, Randy, what took you so long? The action may be over 12 years old, but you can smell the JP and feel the thump of the Sidewinder leaving the missile rail—it seems like yesterday. An exciting, action-packed paper-

back for a wintry evening's entertainment. Pow! Biff! Boom! Zap! Shoot-out at the OK Corral! With a replay of a few of the old "lessons learned," what we have here sets the alarm bells ringing in light of some of the events of the last couple of years in the Mediterranean and in Lebanon.

Jeff Ethell, son of an Air Force fighter pilot, young civilian aviator who is checked out in everything from Pipers to P-51s to F-14s and F-15s, a meticulous historian who researches regularly for the Smithsonian and who corrected the official war records for both Falklands war antagonists in *Air War: South Atlantic*, the same Ethell has provided the perfect touch for Cunningham in this combined effort.

The instinctive cockpit reactions—grunts, noises, fears, shouts—reflexes experienced by Cunningham as he plays every trick of the dogfight game (shades of Boelcke and 1915!) in becoming the first US pilot in Vietnam to blast five enemy fighters from the skies. These happenings which heretofore have been appreciated only in the ready rooms and at the fighter bars at Navy, Marine and Air Force bases have been smoothly and wonderfully translated by Ethell into understandable and meaningful dialogue. This authentic American hero and his Radar Intercept Officer (RIO) became the first aces of the Vietnam War. Only three other pilots, all Air Force captains, achieved that distinction in the final 7 months of the war before it ended in 1973.

Standard lessons from Southeast Asia are replayed, but now through the eyes of this Missouri high school teacher and coach cum Navy lieutenant fighter pilot:

- The Navy killed only 29 MiGs from 1965-71, all with Sidewinder missiles.
- In 1972, 24 MiGs were killed by missiles, 23 by Sidewinders (five by Cunningham in 5 months) and one by Sparrow. By Cunningham's estimate, he alone would have killed three to eight additional MiGs in 6 months if he'd had a gun in his gunless F4J Phantom.
- Five out of six Navy air-air losses were to MiGs that were never seen by the pilots of the Navy fighters; over 90 percent of all Air Force losses to MiGs occurred the same way. RIOs (Air Force:WSO) were indispensable in dogfights. About 80 percent of all visual sightings of MiGs was by the RIO/WSO and behind the wingline (i.e., the MiG was sliding in for the kill. Eric Hartmann, the German ace of WW II with over 400 fighter kills, estimated that less than five percent of the fighter pilots he shot down knew what hit them).
- The exchange ratios for the Navy and Air Force from 1965-69 were about 2+:1, i.e., 2+ MiGs were knocked down for each US loss. Compare that to 10:1 for the United States in Korea and 88:0 for Israel over the Bekâa Valley against Syria in June 1982.
- The Navy instituted Top Gun to relearn air combat maneuvering (read: dogfighting) about 1967, and the 1969-73 exchange ratio flipped dramatically for the Navy to 12:1.

The Air Force did not develop Red Flag until much later, and consequently its exchange ratio for 1969-73 was even worse, about 1.9:1.

- During Operation Linebacker the Navy and Air Force were allowed to go after the enemy aggressively in his own backyard. As many air-air kills were made in 1972 as had been made in 1965-72.
- In matters of war, the principles of Objective and Offensive still count. If the single-minded objective and the violent offensive of 1972, when we were trying to shake loose from the war, had been as relentlessly pursued in 1965 when we first went into the war . . . if, if, if. Gimme another beer, Joe.

Cunningham, a true American hero who performed one of the greatest combat feats of Vietnam, came home to a "Dear John" letter and a ride through his hometown of Shelbina, Missouri. Population: 3,000.

And the same bureaucrats who made the gunless F4Bs and Js of the 1960s and 1970s are now making the single-seated F-15s, F-16s and F-18s to go against an air force many more times potent than that of North Vietnam of 1972. And on 4 December 1983 Navy carrier aircraft are ordered by Washington to attack a target in the wrong place with the wrong aircraft with the wrong ordnance and at the wrong time of day. With the wrong results.

Where do you guys come from, Randy? You've done your job well, you've passed the baton. The unsung heroes of the 1960s and 1970s are still there, flying from our carriers, obeying orders from Washington, taking it from the media and the Fondas and the Jacksons.

Would to God your book would be read by all the desk flyers and paper pile-its in OpNav, the JCS and the White House. Randy, they could learn from you!

MYRL ALLINDER
Colonel, US Marine Corps

Greene, James and Scowcroft, Brent. *Western Interests and U.S. Policy Options in the Caribbean Basin, Report of the Atlantic Council's Working Group on the Caribbean Basin.* Boston: Oelgeschlager, Gunn and Hain, 1984. 324pp. $27.50 paper $12.50

The Atlantic Council's Working Group Report *Western Interests and U.S. Policy Options in the Caribbean Basin* is a comprehensive treatment of the economic, social, political and security realities of the Caribbean basin. The Working Group Co-Chairmen, James Greene and Brent Scowcroft, suggest an extensive agenda for US policymakers in multiple areas ranging from social and economic reform to security assistance and antiterrorist initiatives.

The authors make a compelling case for increased Western and particularly US attention and emphasis in the Caribbean basin. This presentation is made thoroughly and systematically by presenting an overview of policy options. This treatment is followed by a thorough analysis of six major issues by various members of the working group: eco-

nomic, social, political, security, migration, and energy. The contrasting styles of the various authors are refreshing and tend to reemphasize the complexity of Caribbean basin issues. This complexity is further underscored when the authors allude to the large number of US organizations and agencies (46 at a recent Caribbean conference) involved in formulating and implementing policy in this region.

The Atlantic Council Working Group distills US policy possibilities into three primary options—the Hegemonic, the Collaborative and the Damage Limitation—and comes down solidly in favor of the Collaborative option, i.e., one that recognizes the institutional limits to our initiatives and emphasizes multilateral rather than bilateral approaches to problem resolution.

US security interests in the Caribbean Basin receive, arguably, the greatest emphasis in the Working Group's report. These interests stem from this baseline statement: "Assisting in the establishment and maintenance of a peaceful, secure, stable, and friendly (or at least not hostile) Caribbean basin that is economically developing, with governments generally accepted as legitimate and respectful of human rights of their citizens, and with access to effective mechanisms for resolving or defusing interstate conflicts." Emphasis in this area revolves around a multilateral (collaborative) approach to enhanced security and an appropriate treatment of Soviet, Cuban, and Nicaraguan instigated problem areas.

The report is both topical and timely, and therefore it is logical to assume that there will be periodic revised editions to this work. There are some minor weaknesses and inconsistencies which detract from the otherwise high quality of the report that should be eliminated from subsequent editions.

The authors refer to a plethora of accords, treaties and organizations ranging from CBI to GATT to OAS without clearly defining them. Appendixes detailing such things as the OAS Treaty would be useful. In calling for a multilateral approach to problem solution in the area the authors argue that this type of approach can augment US leverage and in so doing actually suggest a manipulative foreign policy. Although the Atlantic Council acknowledges other areas requiring US policy emphasis (Europe, Japan, etc.) the authors accuse the United States of exercising "benign neglect" in the area, without exploring the options and tradeoffs that must be made in a resource-limited situation. A number of good charts, graphs and tables are provided. However these are sometimes contradictory (one table lists the strength of the Cuban Army at over 225,000 men while one figure lists it at approximately 100,000 fewer). A number of conclusive statements (such as "El Salvador is the linchpin of Central American Policy") are made without supporting documentation or discussion and some "policy options" are offered (such as "the most significant contribution the U.S. can make to eco-

nomic growth in the Caribbean Basin is to run its own economy better . . . ") which are not policy options at all.

Naval officers and analysts who read this work will probably be troubled by the short shrift given to the role of the US Navy in the Caribbean basin and specifically to the initiatives that have provided such positive feedback such as regular UNITAS deployments, increased presence of Caribbean basin naval officers at the Naval War College and the recently completed Inter-American Naval Conference.

In spite of the minor deficiencies, the Atlantic Council Working Group's Report is an excellent study. It can serve to expose the layman quickly to the realities of Western interests and realistic US policy options in the Caribbean basin and it can also stimulate thought among US policymakers at all levels who must wrestle with these issues on a day-to-day basis. For layman and policymaker alike this is a necessary, though not a sufficient, book.

GEORGE GALDORISI
Commander, US Navy

Cook, Don. *Charles de Gaulle: A Biography.* New York: Putnam, 1983. 432pp. $22.95

There is a growing realization among Americans that French foreign policy, based as it is upon the concepts of sovereign independence and defense against Soviet expansionism, is more than cranky anti-Americanism coupled with a desire to retain the tattered remnants of great power status. The Fifth Republic is the world's third nuclear power and maintains substantial conventional forces. The current socialist regime is even more anti-Soviet than its conservative predecessor, and Paris actively supports Washington's policy of modernizing its tactical nuclear arsenal in Western Europe. Thus the republic created by Charles de Gaulle has become one of America's most reliable friends, and it is appropriate to reexamine the life of the man who did so much to create the France of today.

Don Cook, Paris bureau chief for the *Los Angeles Times*, has covered the French and European political and military scene since World War II. He has written a biography of de Gaulle with mixed results. Essentially his book falls into two parts—pre- and post-1945. In the first part de Gaulle emerges as the hero who almost alone rescued his nation from the shame of Vichy and collaboration. De Gaulle also succeeded in restoring France to great power status despite doubts and outright opposition from his Anglo-American allies.

Cook supplies a wealth of material on de Gaulle's relationship with Churchill and Roosevelt. Despite a number of tense moments the British Prime Minister and the leader of Free France managed to develop an effective working relationship. With Roosevelt, however, there was never a meeting of the minds. Wedded to the fatuous belief that Vichy would one day turn on its German masters the US State Department insisted on dealing

with Pétain and Laval and refused to recognize the Free French. After the Allied landings in North Africa, Eisenhower concluded an armistice with Darlan to end Vichy armed resistance. Washington went a step further by maintaining in power Vichy officials and laws for several months after Darlan's death although British, American and Free French forces were firmly established in Morocco and Algeria. Prior to D-day, Cook points out, the Americans planned to treat France as an occupied, not as a liberated country. However, de Gaulle managed to outmaneuver the Americans and emerged as the leader of a free and independent member of the Grand Coalition.

Cook is much less successful in dealing with the post-1945 de Gaulle. The second de Gaulle, according to Cook, was motivated by anti-Americanism and dreams of grandeur. In the interests of parochial nationalism, de Gaulle weakened both Nato and the Common Market and sought to play a role in global politics that France lacked the resources to sustain. Cook assumes, without much examination, that the American Atlanticist position is correct and does not explore de Gaulle's views concerning the role of sovereign states or the dangers of a world divided into sharply delineated blocs.

Moreover, Cook seems to have lost interest in his subject after 1945. He deals with de Gaulle's return to power in 1958 in a perfunctory manner and omits much of the exciting detail surrounding the disengagement from Algeria and the subsequent military mutinies and secret war against the OAS. The full story of de Gaulle's foreign policy is in fact treated in a sketchy hostile manner. De Gaulle's views may indeed have been flawed, but they deserve a more careful analysis than Cook supplies.

Although the second half of Cook's biography is seriously flawed, he does succeed in reminding readers of the power of the general's personality and intellect. The fine portrait of de Gaulle during his years of adversity also provides strong clues as to the type of ally and adversary he was to become after 1958. Perhaps as the realization of France's current role becomes more widely understood, a more comprehensive and well-balanced picture of de Gaulle's role as President of the Fifth Republic will emerge.

STEVEN ROSS
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GOVERNMENT PUBLICATIONS

Essays on Strategy. Stock Number: 008-020-01002-2, 132pp., $4, 1984
The five selected essays address issues and choices confronting Western strategies. "Operation Barbarossa" examines basic military strategy and delineates certain characteristics of the Soviet soldier by reviewing Germany's 1941 invasion of Russia. The four remaining essays examine chemical weapons, "Deep Attack" in defense of Central Europe, Nato and Persian Gulf security, and Indian Ocean security. These essays emphasize the value of intelligent and open debate on national security issues.

Defense Planning for the 1990's. Stock Number: 008-020-01007-3, 328pp., $8.50, 1984
This publication focuses on South and East Asia, a manifestation of growing interest in these regions and such problems as Indo-Pakistani tensions, nuclear proliferation, and improved Sino-American relations. A striking example of new perspective is the possibility of normalizing relations with Vietnam—a subject which could not have been discussed seriously in 1974.

United States Military Posture—Fiscal Year 1986. Stock Number: 008-004-00022-6, 112pp., $4.50, 1985
The basic mission of the US Armed Forces is to help preserve the United States as a free nation, with its fundamental institutions and values intact. US forces help assure the physical security of the United Srates and protect US interests abroad. An imporrant purpose of US military power is prevention of war. The tasks assigned the Armed Forces require a strong military posture to provide a credible deterrent across the spectrum of conflict.

Merritt, H.L. and Carter, L.F., eds. *Mobilization and the National Defense.* Stock Number: 008-020-01013-8, 144pp., $4.25, 1985
The essays in this volume are designed to integrate strategy, the indusrrial base, and manpower, the three major elements of mobilization planning. The essays also emphasize the complexity of mobilization and underline the need for cooperation among major sectors of our society in order to achieve and maintain national preparedness. Oceans to the east and west and friendly nations to the north and south once afforded the United States sufficient time to mobilize for war—even after the start of hostilities. However, today, with so many US forces deployed near potential enemies and with technology shrinking the world, we must be prepared to mobilize more quickly if we are to avert losing the conflict before the United States can become fully engaged.

Understanding Soviet Naval Development. Stock Number: 008-047-00314-5, 156pp., $7.50, Reprint 1984
One of the most dramatic developments of the post-World War II period has been the growth of naval and maritime activities. Today the Soviet Union is a true "sea power" challenging the United States in all aspects of maritime activity. From the end of World War II until the early 1970s the United States maintained unquestioned

naval supremacy. This gave the United States great flexibility in foreign policy and provided one of the West's primary shields against Soviet aggression. Today, after a great expenditure of resources, the Soviet Navy has achieved quantitative and qualitative leadership in several aspects of naval power. This Soviet leadership, both real and perceived, is having considerable impact on international political, economic, ideological, and military developments. This publication discusses the expansion of Soviet maritime strength from its beginning to its present status and the trends which are indicated for the future.

The Soviet-Cuban Connection in Central America and the Caribbean. Stock Number: 008-000-00419-6, 48pp., $2.25, 1985

This book provides information about Soviet and Cuban military power and intervention in Central America and the Caribbean. The threats resulting from this factor are as much a part of the region's crisis as are better known indigenous and historic factors. United States policy in the area is based on four mutually supportive elements that are being pursued simultaneously: (1) to assist in the development of democratic institutions and to encourage creation of representative governments accountable to their citizens; (2) to address on an urgent basis the economic and social problems of the region by providing economic assistance to stimulate growth; (3) to provide security assistance to enable the countries to defend themselves against Soviet-bloc, Cuban, and Nicaraguan-supported insurgents and terrorists intent on establishing Marxist-Leninist dictatorship; (4) to promote peaceful solutions through negotiation and dialogue among the countries of the region and among political groups within each country.

Unitas XXV—A Silver Anniversary. Stock Number: 008-046-00111-1, 160pp., $23.00, 1985

This book captures in words and photographs the essence of one of the world's largest and most logistically far-flung multinational naval exercises. More than a collection of pictures, it is a graphic record of the 25th anniversary of Unitas, an annual event that begins at the US Navy's base at Roosevelt Roads, Puerto Rico, travels south through the Panama Canal, around the South American continent, and ends four and one-half months later in Recife, Brazil. A naval exercise of this size is a carefully coordinated series of operations designed to test the capabilities of people and equipment. It demands the proper application of the skills learned. Equally important, it illustrates the common bond between the Americas, and a growing awareness of the importance of the friendships and mutual professional respect that is a product of Unitas.

Search [US Marine Corps]. Stock Number: 008-055-00166-8, 138pp., $5.00, 1985

As the nation's Force in Readiness, the United States Marine Corps must continually maintain the capability to respond to any threatening situation. *Search* is published as a method of presenting Marine Corps material requirements and issuing a challenge to the industrial, educational, and research organizations to develop new and innovative solutions to fulfill these requirements. The intention of *Search* is to present a broad view of new equipment, techniques, or systems the Marine Corps foresees as necessary to maintain its preeminent position and combat readiness.

Ships, Aircraft and Weapons of the United States Navy. Stock Number: 008-047-00362-5, 72pp., $3.00, 1984

Fully illustrated, this booklet presents a series of fact sheets on significant Navy weapons systems. It is divided into five general categories: ships, fixed-wing aircraft, helicopters, missiles and weapons. The fact sheets contain unclassified information about each system.

Wade, Gary H. *Rapid Deployment Logistics: Lebanon, 1958.* Stock Number: 008-020-01022-7, 128pp., $4.50, 1985

One of the more consistent patterns in US military operations since the end of World War II has been our growing involvement in contingency operations around the world. Recognition of this significant role for our military forces has been reflected most recently in the establishment of several new commands—First Special Operations Command—which exist in order to improve US capability to repond to worldwide threats on short notice. This research survey examines the deployment of US forces to Lebanon in 1958. It discusses aspects of combat service support, inclnding such functions as resupply, transportation, procurement, civil affairs, security, and medical support. This study presents a model for planning, deploying, and sustaining a task force, and offers many lessons for today's army.

The Militarily Critical Technologies List. Stock Number: 008-000-00409-9, 260pp., $7.50, 1984

The Department of Defense has prepared, and reviewed annually since 1980, the *Militarily Critical Technologies List (MCTL)* in response to Section 5 (d) of the Export Administration Act of 1979, and pursuant to Executive Order 12470 of 30 March 1984. The *MCTL* is a detailed and structured technical statement of development, production, and utilization technologies which the DoD assesses to be crucial to given military capabilities and of significant value to potential adversaries. As such, it is a technical reference and source document to support the development of export control policy and specific Coordinating Committee proposals. This unclassified *MCTL* responds to those requests, public knowledge, industry, and academia for public dissemination, in a format designed to protect national security interests, while providing greater ease of use by the public.

Review of the Spare Parts Procurement Practices of the DOD. Stock Number: 041-001-00277-4, 208pp., $7.00, 1984

Weapons systems and their associated equipment are made up of thousands of parts and subassemblies. Spare parts are purchased to replace or repair those parts or assemblies that wear out, malfunction or break, in order to keep an end item or system in full operation. There are approximately fonr million spare parts in the DoD system. The Services manage 1.8 million of these, while the Defense Logistics Agency manages 2.2 million common parts. The DoD budget for spare parts in FY 1984 is approximately $22 billion. Beginning in 1981, a series of reports revealed what appeared to be outrageous excesses in the pricing of simple spare parts. While the reports do not typify the DoD system or warrant a conclusion that things are out of control they do indicate poor procurement practices, both in Government and industry, and the need for additional management attention.

Roland, Alex. *Model Research.* (2 Volume Set) Stock Number: 033-000-00894-5, 844pp., $26.00 Per Set, 1985

Throughout most of its history, the National Advisory Committee for Aeronautics (NACA) was arguably the most important and productive aeronautical research establishment in the world. Between its creation in 1915 and its demise in 1958, it published more than 16,000 reports sought after and exploited by aeronautical engineers throughout the United States and abroad. It developed wind tunnels, as well as other equipment and techniques, that revolutionized aeronautical research. The data that it gathered are still employed in aircraft design. Though the NACA had its failures and shortcomings, its reputation for efficiency and effectiveness was so widespread and transcendent that it came to be viewed as something of a model research organization. This two-volume set examines the NACA as an institution, attempting to explain how and why it functioned and to evaluate it as a research organization.

Vietnam—10 Years Later—What Have We Learned? Stock Number: 008-020-01023-5, 112pp., $4.00, 1985

"You are forgiven a lot when you win. When you lose, you are not forgiven. I have won and I have lost. Let me tell you, winning is better. . . ." Howard K. Smith. This book is published as an academic effort, a collection of the thoughts and words of some of the most prominent players and scholars of the Vietnam era. It makes no claim to total objectivity—just as no press account of Vietnam can claim objectivity. Perhaps objectivity on Vietnam is a contradiction in terms.

The U.S. Government and the Vietnam War, Part II. Stock Number: 052-070-06002-6, 440pp., $10.00, 1985

By 1961, after years of US support for existing governments in Vietnam and Laos, the Communists appeared to be making greater inroads in those countries, and it seemed clear to US policymakers that further action needed to be taken to protect American interests in Southeast Asia. In Vietnam, the government of Ngo Dinh Diem was becoming increasingly unpopular, while being faced with more intense military and political pressures from the Communists. This volume, which is part of an overall study of the roles and relationships of the Executive and the Congress in the Vietnam War being prepared for the Committee on Foreign Relations, describes events during the 1961-64 period as the United States became progressively more involved in the struggle taking place in Vietnam.

Telfer, G.L., et al. *U.S. Marines in Vietnam — Fighting the North Vietnamese 1967.* Stock Number: 008-055-00165-0, 356pp., $10.00, 1984

This volume details the change in focus of the III Marine Amphibious (III MAF), which fought in South Vietnam's northernmost corps, I Corps. III MAF, faced with a continued threat in 1967 of North Vietnamese large unit entry across the Demilitarized Zone separating the two Vietnams, turned over the Chu Lai enclave to the US Army's Task Force Oregon and shifted the bulk of its forces—and its attention—northward. With illustrations and maps, the volume concentrates on the ground war in I Corps and III MAF's perspective of the Vietnam War as an entity. It also covers the Marine Corps participation in the advisory effort, the

operations of the two Special Landing Forces of the US Navy's Seventh Fleet, and the services of Marines with the staff of the US Military Assistance Command, Vietnam. There are additional chapters on supporting arms and logistics, and a discussion of the Marine role in Vietnam in relation to the overall American effort.

Berger, Carl, ed. *The United States Air Force in Southeast Asia, 1961-1973: An Illustrated Account.* Stock Number: 008-070-00516-6, 408pp., $14.00, 1984

This is a fully colored and illustrated account of United States Air Force activities in the Southeast Asia conflict from 1961 to 1973. While United States' involvement in the Southeast Asian conflict extended back into the 1950s, this volume covers the years of active American participation from the early 1960s to 1973. From the outset, American officials regarded the conflict basically as a land war, with the fighting in South Vietnam commanding top priority. As a result, airpower rarely played an independent role during the war, and air operations served primarily to assist troops on the ground. The year 1973 saw the end of direct American combat involvement in the Southeast Asia conflict—a conflict sometimes referred to as the Indochina War, the Viernam War, and by other assorred sobriquets which the experience was marked by great frustration.

Henderson, William Darryl. *Cohesion—The Human Element in Combat.* Stock Number: 008-020-01005-7, 220pp., $6.00, 1985

One of the perils for military planners in a high-tech world is to be taken in by the destructiveness of modern weapons and to give in to the currently popular theory that modern war will last for days or weeks rather than months or years—in short, to envision a world where technologies, not people, dominate war. In assessing who wins and why, it is easy to overweigh any one factor and neglect others. Broad factors such as objectives and strategies, weapons and materials, technology, numbers of soldiers, and the human element must all be considered in determining who wins and why.

Human Behavior. Stock Number: 008-047-00365-0, 236pp., $7.00, 1984

Although written for military, *Human Behavior* is a basic presentation of human behavior theory and utilization techniques as applied to basic assumptions about human behavior and motivation, the influence of perception, the effects of stress and conflict on human reactions, the formation and influence of attitudes, communication, problem solving, and teaching and learning. *Human Behavior* is designed to serve as a basic course on leadership concepts and principles for those who spend most of their time in supervisory duties. This course is presented to assist in exercising their authority and carrying out their assigned duties and responsibilities.

Treaties in Force. Stock Number: 044-000-02048-3, 352pp., $9.00, 1985

Treaties in Force is published annually by the Department of Srate for the purpose of providing information on treaties and other international agreements to which the United States has become a party and which are carried on the records of the Department of State as being in force as of 1 January of each year. This publication is arranged in two parts, with an appendix. Part 1 includes bilateral treaties and other international agreements listed by country or other international entity with

subject headings under each entry. Part 2 lists multilateral treaties and other international agreements to which the United States is a party, arranged by subject with a listing of the parties to that agreement.

McDonald, John W., Jr. *How to be a Delegate.* Stock Number: 044-000-02044-1, 60pp., $2.00, 1985

The US Government, through the Department of State, sends more than 1,000 delegations a year to multilateral meetings. In any given year, some 25 percent of the 4,000 plus individual delegates attending these conferences are participating in their first international meeting, and have little training in how international conferences are actually carried out. This booklet is designed primarily for the newcomer to conference diplomacy, whether that person is a government official or a private sector representative, a head of delegation or an adviser. It deals with the basics and answers many questions the newcomer will have. It is designed as a practical guide to help the reader become a more effective negotiator and a better representative of the United States.

Strategic Materials: Technologies to Reduce U.S. Import Vulnerability. Stock Number: 052-003-00979-0, 420pp., $14.00, 1985

The United States is well endowed with many natural resources. Timber, coal, water, and agricultural resources are the envy of the rest of the world. The endowment is not complete, however, as the United States is dependent on foreign suppliers for many mineral resources. The Soviet Union and the nations of southern Africa are suppliers of many of the minerals and metals that the United States must import. Although in some cases these nations play only a limited role in the world supply of raw materials, for some materials they quite literally dominate the market. The most visible policy taken by the United States to guard against disruptions of supplies of strategic materials is the National Defense Stockpile. The objective of the stockpile is to support US defense, industrial, and essential civilian requirements during a prolonged military conflict or declared national emergency. In the longer term, there are many technical alternatives that can provide more secure sources of supply, improve the prospects for conservation and recycling of strategic materials, or speed the acceptance of substitute materials that reduce the need for strategic materials.

The World Factbook 1985. Stock Number: 041-015-00159-1, 284 pp., $14.00, 1985

The data are provided by various components of the Central Intelligence Agency, the Defense Intelligence Agency, the Bureau of the Census, and the US Department of State. The World Factbook gives a brief resumé of each country of the world with much vital information. It includes data on countries from Abu Dhabi to Zimbabwe, and statistics on the land, nationality, religion, political parties, economy, exports and imports, and much more. There are also 12 maps of areas of the world.

Trask, Roger R. *The Secretaries of Defense—A Brief History 1947-1985.* Stock Number: 008-001-00147-9, 80 pp., $3.00, 1985

The Department of Defense, initially named the National Military Establishment, was created by the National Security Act of 26 July 1947. This law "to provide a

comprehensive program for the future security of the United States" reflected the military experience of the nation during World War II and the new imperatives of the postwar world. In 1947 the international setting differed radically from what it had been when war broke out in 1939, as did the role that the United States was playing in it. The largest US government institute, the Department of Defense touches the lives of many Americans. Since its creation it has embraced the total military establishment of the United States, including the Army, Navy, Air Force, Marine Corps, Organization of the Joint Chiefs of Staff, and a host of auxiliary agencies.

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