

JFQ

**THE
GOLDWATER-NICHOLS ACT
Ten Years Later**

21st Century Military

NBC Proliferation

**Knowledge-Based
Warfare**

Decisive Force

96
Autumn



*service forces assigned to a joint force
provide an array of combat power from
which the joint force commander chooses*

—Joint Pub 1, *Joint Warfare of the
Armed Forces of the United States*



A Word from the Chairman

Today, we often take the post-Cold War successes of our Armed Forces for granted. From Haiti to Bosnia, to the Taiwan Strait, to Liberia, to the skies over Iraq, they have achieved great success at minimal cost in nearly fifty operations since Desert Storm. Quality people, superior organization, unity of command, and considerable skill in joint and combined operations have been central to that achievement. All these factors owe a great debt to the Goldwater-Nichols DOD Reorganization Act of 1986, whose 10th anniversary is celebrated in this issue of *JFQ*.

Indeed, the effects of Goldwater-Nichols have been so imbedded in the military that many members of the Armed Forces no longer remember the organizational problems that brought about this law. As recently as the early 1980s,

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while we had begun to rebuild capabilities and overcome the Vietnam syndrome, numerous events reminded us that military organization had changed little since World War II. Despite the skill and dedication of our men and

women in uniform as well as a significant percentage of national resources, we often came up short. As late as the early 1980s, notwithstanding the Reagan-era defense buildup, the Armed Forces



Visiting Aviano Air Base, Italy.

DOD (Paul Caron)

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by John M. Shalikashvili

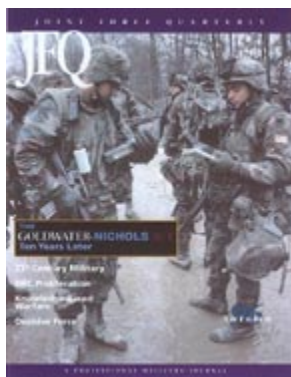
FROM THE FIELD AND FLEET

7 Letters to the Editor

THE GOLDWATER-NICHOLS ACT
Ten Years Later



PHOTO CREDITS



The cover features soldiers of 325th Airborne Battalion Combat Team on patrol outside Tuzla Air Base (U.S. Army/Larry Lane).

The front inside cover photos demonstrate (clockwise, from top left) KC-135 refueling F-16Ds (U.S. Air Force/Mike Reinhardt), *USS La Moure County* at Guantanamo Bay (U.S. Navy/Lou Caporaletti, Jr.), marines with raft fast-dropping (U.S. Marine Corps), and 1st Armor Division heading for Srebrenica (U.S. Army/Larry Lane).

The table of contents photos above show (clockwise, from top left) landing craft off Rota, Spain (U.S. Navy/Stephen H. Kless), M-1 tank (U.S. Marine Corps), naval battle group underway (U.S. Navy), and F-16s at Luke Air Force Base (U.S. Air Force/Val Gempis). The photo on

the opposite page catches Senator Nunn accompanied by Secretary Perry trooping the line at a review in his honor on July 12, 1996 (DOD/Helene Stikkel).

The back inside cover captures FA-18s aboard *USS Independence* off Thailand during Cobra Gold '95 (U.S. Air Force/ Don Green).

The back cover depicts (clockwise, from top) C-130 (U.S. Air Force/ Val Gempis), UH-60 Blackhawk (U.S. Army/Penny Parker), Marine light armored vehicles (U.S. Navy/Jeffrey S. Viano), and dock landing ship *USS Ashland* (U.S. Navy).

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GEN John M. Shalikashvili, USA
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were occasionally inefficient, even ineffective, in conducting joint operations.

In 1980, despite considerable heroism, we failed to rescue the American hostages in Iran. We aborted a troubled mission primarily due to equipment failures, but planning and organization were also problematical. In 1983 a successful rescue operation in Grenada exposed weaknesses in organizing and conducting joint operations on short-notice. We encountered severe organizational challenges at the staff level, difficulty delivering routine fire support, and problems communicating among units of different services. While the assault met with only limited resistance, it resulted in 18 Americans killed and over a hundred wounded.

The 1982 report of the Chairman of the Joint Chiefs of Staff Study Group on *The Organization and Functions of the JCS* documented what had become painfully obvious to operators: "The military organizations given the responsibility for the planning and execution of joint activities . . . simply [did] not have the authority, stature, trained personnel, or support needed to carry out their jobs effectively." A number of observers added that these organizational problems seemed to be an integral part of how we had gone to war throughout our history. Compounding these traditional problems was the fact that we were entering an era of short-warning operations requiring higher levels of organizational agility than we had.

On planning and programmatic issues, the Joint Chiefs from 1945 to 1985 were organized by law as a committee of equals and oriented toward consensus decisionmaking. While stronger on crisis decisionmaking, the chiefs possessed much less credibility when it came to decisions about force structure or budgets. Many Chairmen and Secretaries of Defense bemoaned the fact that, when it counted the most, the chiefs were often unable to render decisive advice on the most difficult programmatic decisions.

These organizational problems were difficult to fix. For nearly forty years, twenty major studies or commissions—including one backed by President Eisenhower—recommended changes in defense organization to foster better planning and operational effectiveness. In 1982, General David C. Jones, nearing the end of his tour as Chairman, added his name to the list of critics and reform advocates. He pushed for changes that would strengthen the Chairman's role in providing advice to the President and Secretary, create a Vice Chairman, and enhance the quality of officers assigned to Joint duty. General Edward C. Meyer, the Army chief of staff, also argued publicly in the middle of his tour for more radical changes in the way military advice was given to the National

Air Force search and rescue helicopter lifting off *USS George Washington*.



U.S. Navy (Gregg Straza)

Command Authorities, as well as for increased powers for joint commanders in the field.

Also in 1982, the House and Senate began hearings which after five years of work resulted in the Goldwater-Nichols Act. The forces against change were strong. Not only were there open and persuasive advocates of the status quo, but the effects of some changes were hard to predict and entailed considerable risk. Even the Joint Chiefs resisted many of its provisions. In the end, however,

Goldwater-Nichols clarified the authority of the Chairman over strategic planning, readiness management, and joint doctrine

President Reagan supported the bill and on October 1, 1986 it became law.

From the vantage point of the mid-1990s, the act has brought about a number of changes which together have had a revolutionary impact on defense organization.

First, it made the Chairman—as opposed to the corporate body of chiefs—the principal military adviser to the Secretary of Defense, National Security Council, and President. While the chiefs remained valued advisers, this provision removed

much of the pressure for a consensus in decision-making and allowed for more flexibility and decisiveness. In a related provision, the Joint Staff became the Chairman's staff, and not the staff of the corporate JCS.

Second, the act created the position of Vice Chairman, who by law was made the second ranking officer in the Armed Forces. Later, he was also made a full member of the Joint Chiefs in his own right. Establishing this position provided continuity in joint leadership and afforded the Chairman greater flexibility. Moreover, the addition of the Vice Chairman has improved the work of the Joint Staff in many critical areas. The Joint Requirements Oversight Council (JROC) and its associated bodies have greatly enhanced the impact of the military on budgetary and programmatic issues. Indeed, as Bill Owens and Jim Blaker have noted in this issue, JROC “represents the first major revision of the planning, programming, and budgeting system . . . since Secretary Robert McNamara put it in place more than three decades ago.”

Third, Goldwater-Nichols clarified the authority of the Chairman over strategic planning, readiness management, and joint doctrine. It charged him to assist the President and the Secretary of Defense in providing for the strategic direction of the Armed Forces. It also made him the

point of contact and spokesman for CINCs and established—with the permission of the Secretary—his oversight of them. These provisions of the law enabled the Chairman and Joint Staff to be the focal point for “jointness”—the search for common solutions to problems shared by all the services and unified commands. Jointness aims to make all the efforts of the Armed Forces greater than the sum of their parts.

Fourth, Goldwater-Nichols enhanced the powers of unified commanders over their service components and advanced their role in budgetary and programmatic processes. Thus, better unity of effort in Washington complemented improved teamwork in the field.

Finally, the law inaugurated the joint specialty officer program and increased the value of joint assignments. The quality of officers assigned to joint duty increased overnight. Today, the best personnel from all the services seek joint assignments, which has become a prerequisite for promotion to general or flag officer. In addition, Goldwater-Nichols emphasized joint professional military education. Along with subsequent legislation, it sparked numerous improvements in both intermediate and senior service colleges, as well as in the National Defense University.

In all, changes brought about by Goldwater-Nichols have improved advice to the National Command Authorities on military matters and helped to rationalize defense decisionmaking and strategic planning. The payoff came in Panama and Kuwait, as credited by General Colin Powell in the interview found in this issue.

As a result of the law, we have pioneered numerous planning documents, including a new national military strategy and more robust programmatic assessments and recommendations. Our interoperability has improved. Joint doctrine has been a major success story, with more than sixty authoritative pubs available to guide joint operations. CINCs and their components have improved the quality of joint training and exercises. Today we have a functioning joint readiness system, allowing us to monitor and manage the force’s capabilities for joint warfighting.

Most importantly, as mentioned above, the law caused changes in Washington and the field that enabled us to achieve unparalleled operational successes. As Senator Sam Nunn observes in his article, we have made more operational progress in the last ten years “than in the entire period since the need for jointness was recognized by the creation of the Army-Navy Board in 1903.” Thus, because of Goldwater-Nichols the Armed Forces can better protect our national interests at minimal cost in lives and resources. And that is the central reason why this landmark legislation is being lauded in these pages.

Yet it is not sufficient merely to praise the Goldwater-Nichols Act. The legislation pointed us toward jointness, and we must continue on that journey. Some tasks are clear. For example, as General Sheehan indicates in his article, joint training and joint force integration are top priorities. We still have some forty doctrinal pubs in the works, and unified commands are far from having perfected joint exercises. Improving the joint universal lessons learned process is also essential.

Moreover, as I stated in the last issue of *JFQ*, the most important next step toward jointness will be the implementation of *Joint Vision 2010*, the conceptual template for how the Armed Forces will channel the vitality and innovation of our people and leverage technological opportunities to achieve new levels of effectiveness in joint warfighting. To increase efficiency and effectiveness in an environment of declining resources and a demanding operating tempo, the services and unified commands have decided to move forward together to develop new operational capabilities that will enable us to dominate any adversary along the spectrum of military operations. Goldwater-Nichols helped us to accomplish that task today, and we must carry its spirit into the 21st century.

JOHN M. SHALIKASHVILI
Chairman
of the Joint Chiefs of Staff

Letters . . .

ON THE BORDER

To the Editor—Your piece by Glenn Weidner entitled “Operation Safe Border: The Ecuador-Peru Crisis” (*JFQ*, Spring 96) presented a sound assessment of the role played by the Military Observer Mission Ecuador-Peru (MOMEP). The author’s insightful analysis reflects his able performance as the first commander of the mission’s U.S. contingent. But the article also includes inaccuracies that have been repeated for forty-five years and muddy an already complicated dispute. Moreover, it distorts the current talks being conducted by the two parties and four guarantors of the 1942 Rio Protocol. The article also risks undermining the crucial role which the United States has been playing in the peace efforts.

The first major misconception is accepting the claim that Peru invaded Ecuador in 1941 and forced a settlement under the Rio Protocol. It was the lack of mutually-accepted boundaries which triggered that conflict. At the time, both countries only recognized the military possession of the disputed area in place since 1936. Skirmishes flared up as the two sides increasingly ignored the de facto border. The resulting treaty—the Rio Protocol—was not imposed by one party but rather was brokered by the United States, Brazil, Argentina, and Chile. Those mediators, who became the Protocol guarantors, had to convince each country to relinquish its maximum territorial claims. Peru and Ecuador accepted a proposal by the mediators to find an equitable solution by establishing the boundary based on the pre-1936 status of territorial possession. Logically, hard-liners on both sides were opposed to the settlement, but moderate and realistic viewpoints prevailed and Peru and Ecuador approved and ratified the treaty.

The second major misconception is the claim that in 1946 an unknown geographic feature, the upper Cenepa River, was discovered near the border. According to this inaccurate version, the alleged “geographic discovery”—made thanks to a U.S. aerial survey of the border—led Ecuador to interrupt boundary demarcations along the Cordillera del Cóndor. But in reality the three-year mapping effort painstakingly carried out by the U.S. Army Air Force allowed Peru and Ecuador to jointly resume demarcation along the mountain range in 1947. Moreover, binational field teams of the Peru-Ecuador Border Commission had made accurate surveys of the upper Cenepa River as far as its headwaters in 1943.

Such misconceptions reflect long-standing use of secondary sources. Weidner specifically acknowledges a 1986 study, “Ecuadorian-Peruvian Rivalry in the Upper Amazon,” as his source. That

inaccurate account by William Krieg—based almost solely on the work of two Ecuadorians, Julio Tobar and Jorge Pérez—is reproduced in Weidner’s summary of the historical background. Official joint Peruvian-Ecuadorian and U.S. records dating from 1942 to 1949 (released this year by Peru’s foreign ministry) clarify the historical account. They show that the Border Commission duly marked the boundary along a watershed in the Cordillera del Cóndor and was fully aware of the region’s geography, as well as the often mentioned Cenepa River.

This evidence suggests that the Ecuadorian government decided to suspend the demarcation process despite the fact that Peruvian and Ecuadorian experts agreed in September 1948 to define the small stretch of the Cordillera del Cóndor which remains to date without boundary markers.

Weidner’s account of MOMEP during initial implementation of the 1995 Itamaraty peace declarations deserves careful study. But by repeating historical inaccuracies, he has unwittingly contributed to the misconceptions that have hindered previous efforts to find a solution to a dispute which requires objectivity from all the parties concerned.

—H.E. Ricardo V. Luna
Ambassador of Peru to the
United States

LODGEMENT

To the Editor—After finishing Anthony Tata’s detailed and insightful article entitled “A Fight for Lodgement: Future Joint Contingency Operations” (*JFQ*, Spring 96), I breathed a sigh of relief that the plan for a forced entry into Haiti did materialize, thanks to pressure placed on the local regime. At the same time I’d find it enlightening if a future contributor to *JFQ* could cover the 24 hours of the operation when the JTF commander and staff had to quickly transition from an airborne forced entry scenario to using air assault forces in what was still a hostile environment.

The intelligence picture for Uphold Democracy would most likely have remained the same except that it would have taken place in daylight, which would have negated our night fighting capability and the element of surprise and also enhanced the opportunity for hostile forces to see their targets. Moreover the fire support, operations, communications, and logistics annexes of the plan probably were heavily modified and had to be re-briefed to widely dispersed JTF elements. Another matter of concern may have been the lack of rehearsals for an operation such as this.

Except for the excellent training that the 10th Mountain Division received at Fort Drum and the Joint Readiness Training Center, and a few “old timers” who deployed to Somalia, the operation would suddenly have been an entirely new mission

that had never been previously attempted by a JTF, except for experience gained during a “warfighter” exercise. Those next 12 hours were most likely the toughest for the JTF commander and staff, and it would be exciting to read how they were able to plan, coordinate, and execute a nearly flawless operation in minimal time.

—LTC Mark Lopshire, USA (Ret.)
Nampa, Idaho

MEDICAL SUPPORT

To the Editor—Having read “Medical Dimensions of Joint Humanitarian Relief Operations” by Randolph and Cogdell (*JFQ*, Spring 96), I would like to offer a few comments. I was chief of the customer support branch at U.S. Army Medical Materiel Center, Europe (USAMMCE), during Restore Hope in Somalia. The article’s authors are correct in their description of medical logistics elements of the mission (something planners routinely underestimate). With a large medical supply inventory in Europe, straddling the major transport route was invaluable to theater medical support. International maritime satellite (INMARSAT) messages for specific supplies could be handled in minutes.

Having dedicated space for medical supplies on scheduled flights from Germany simplified transport greatly. Even with just a pallet location reserved, we could adjust the contents of delivery packages to cover the greatest needs, and theater medical staff could be guaranteed delivery times.

The initial Army medical logistics battalion that deployed to Somalia did not know how to operate the theater Army medical materiel information system (TAMMIS), nor were they versed in the basics of forward deployed medical supply management. Two staff members of USAMMCE were rushed to Somalia and spent the month of January 1993 getting TAMMIS on-line, setting up the warehouse, and establishing the INMARSAT communication link.

INMARSAT is not cheap, but its speed and convenience far outweigh its cost. Using it for official business should not be limited by any consideration except operation security.

—LCDR Jim Walters, USN
Acting Director for Logistics
National Naval Medical Center

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and comments

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PKO IMPERATIVES

To the Editor—Two articles that appeared in *JFQ* (Autumn 95)—“Lessons Unlearned: Somalia and Joint Doctrine” by Kenneth Allard and “Military Education for the New Age” by Ervin Rokke—emphasized a critical flaw in current operational planning. The missing element is consideration of the relationship between political and military requirements, especially in the types of operations that characterize the post-Cold War world. What is the cause of this breakdown and how can it be avoided in Bosnia and similar operations? Regrettably, the professional military education (PME) system may be the perpetuating and even compounding factor.

In *National Security and International Stability*, Bernard Brodie noted, “We need people who will challenge, investigate, and dissect the prevailing dogmas” of foreign policy and strategic studies. He cautioned that “the most basic issues of strategy often do not lend themselves to scientific analysis . . . because they are laden with value judgments and therefore tend to escape any kind of disciplined thought.” Clausewitz, said Brodie, warned us “to stress the superior importance of the political side of strategy to the simply technical and technological side,” words that seemed well suited to the age of nuclear deterrence.

Brodie therefore makes two critical points: analysis the military seeks to perform is potentially flawed because issues of strategy do not mix well with “military/scientific analysis”; and, the political component of strategy ought never be forgotten.

One should thus analyze linkages between political concepts and military objectives in detail. For example, in Somalia the military ignored political objectives and focused on military aims. The result was a decoupling of the two. A similar thing could happen in Bosnia, suggesting that the Armed Forces must relearn a key lesson of Vietnam, the relationship between political and military objectives. The political situation will more often than not define the realm of the possible for the military. In short, the military element of power is never a pure policy option. Recognizing the synergism among political, economic, and military components of strategy will result in a more pragmatic and achievable national effort—one where elements of power are synchronized. This is the endstate planning should seek to achieve.

What must be done to make highly political post-Cold War missions successful? We must never forget the primacy of the political. The use of force is a political act for political objectives. Normally each side in a conflict in which force is threatened or used wants the opponent to change political objectives to accommodate its own. But this may not apply in peacekeeping operations (PKOs) since one seeks to create conditions that allow each side to

reach political accommodations which preclude the use of force. This is in fact a change of political objectives by both sides.

Americans have not adjusted to peacekeeping or peace enforcement and other nontraditional uses of military power. They are still looking for bad guys. This is reflected in efforts to legislate restrictions on PKO participation and the isolationist jabs which critics take at the United Nations. In discerning the possible, politicians and soldiers alike should remember that the public must often be educated on the complexities of operations. Popular support is critical. Without it, belligerents will realize that the Nation is unlikely to stay committed and thus they can simply wait us out. This is also the problem with definitive statements about withdrawal dates, which is directly related to the fact that too many issues currently are brought before the United Nations. Some believe that the world organization offers an economy of force approach to crises which is cheaper and easier. Thus, PKOs are evolving into multidimensional operations that are usually part of a larger social or humanitarian problem, increasingly related to internal conflicts, and a result of the “CNN factor.”

The notion that “if it bleeds it leads” in TV news coverage—the CNN factor—results in the United Nations, NATO, and other international organizations becoming involved in operations for which they are neither designed nor equipped. Military planning does not take this into account as yet. The CNN factor influences decisionmakers, not just the public. This results in pressure to do something—anything—and the military option has become more attractive since it is both available and highly visible. Politicians thereby can argue that they are doing something without addressing the sources of the problem, which are usually social and political.

In this context what works is what participating states will support at a given point in time. In the hurry to do something, however, the conditions necessary for a peace operation to succeed are regularly ignored, which usually causes PKOs to fail. Common violations include:

- insufficient resources available—funding is tough when countries like the United States are a billion dollars in arrears
- consent of the parties does not always exist—the countries involved in an operation are not neutral with respect to the original belligerents; or impartiality is not observed—peacekeepers back one side or the other
- self-defense is not perceived by peacekeepers to include defense of their mandate
- the mandate is not clear and achievable
- rules of engagement (ROE) are not usually the problem—rather it is available resources and political will of the Security Council to sustain the operation.

In order to postulate what will work in post-Cold War PKOs one must understand that the focus of such operations is preventing conflict escalation and/or humanitarian relief. These operations are more difficult than traditional PKOs and require new criteria, including answers to the following:

- Do conditions exist for reaching peace? What can be done to create them? Do all sides want them? Are nations participating in the PKO willing to expend resources to achieve them?
- Is a PKO appropriate? Has fighting subsided to a point where all parties believe that the operation and forces are sufficient? Or must an end to the fighting be imposed through peace enforcement?
- What is the political, military, or humanitarian mission? How much force is necessary? Is there support for the operation at least within the governmental elite?
- Can infrastructure work be done early? Can speed be achieved politically and militarily?

Once a PKO is approved, whether it is a quick fix or an effort to eliminate the root causes of a problem, a clear set of achievable political objectives must be developed—namely, a mandate. This should reflect the governing consensus of those with the political will to carry out the mandate while being flexible, not overly detailed, and written so that it will not result in ambiguous ROE. Force size is mission-dependent and should be clearly stated. In essence, a mandate is the political mission statement and tasking order for the military. Mission creep occurs if a mandate is changed in word or deed. Debate over a mandate should present its full intent, especially the limits of the possible as defined by public support. Soldiers trained in the skills implied by Brodie should be thoroughly involved in drafting mandates. Linkages should be explicit, and the military must understand that progress depends on achieving political, not necessarily military, objectives.

PKOs have political, military, and humanitarian components. Humanitarian actions may be at variance with political and military efforts and make them harder. They must be impartial, while military and political actions are not. There is a need to consider which component takes priority. Moreover, domestic political considerations may be paramount to those of the country in question.

The Armed Forces bring many capabilities to PKOs but are reluctant to participate in them. These operations are seen as detractions from readiness and departures from traditional missions. But that attitude and others discussed above must be changed if the military is to be a useful partner in peace operations, and that change means transforming PME.

—COL Bruce B.G. Clarke, USA (Ret.)
Tabuk, Saudi Arabia



THE GOLDWATER-
NICHOLS
ACT

Ten Years Later

Taking Stock of GOLDWATER- NICHOLS

By JAMES R. LOCHER III

“One of the landmark laws of American history” is how Congressman and later Secretary of Defense Les Aspin described the Goldwater-Nichols DOD Reorganization Act. Speaking as the chairman of the House Armed Services Committee in 1986, Aspin added, “[This law] is probably the greatest sea change in the history of the American military since the Continental Congress created the Continental Army in 1775.” Because he was known for colorful, dramatic assertions, many saw this claim as political overstatement. The Pentagon, which did not favor the legislation, not only dismissed Aspin’s characterizations but held an opposite view. Secretary of Defense Caspar Weinberger and service leaders had resisted reorganization legislation throughout a bitter, five-year battle with Congress.

Despite DOD attitudes, Aspin and his colleagues on the two Armed Services Committees had high expectations for Goldwater-Nichols. Senators Barry Goldwater and Sam Nunn, leaders of defense reform, recognized that implementation of massive changes in the largest bureaucracy in the Free World would take time. They predicted that meaningful implementation of many changes, especially cultural ones, would require five to ten years. The act’s tenth anniversary presents an

opportunity to judge whether the results have matched expectations. Comparing the performance of the defense establishment over the last decade against objectives for the Goldwater-Nichols Act provides a useful yardstick for assessing the law’s contributions.

Objectives

Congress expressed its intent in the act’s policy section. The overarching concern focused on the excessive power and influence of the four services, which had precluded the integration of their separate capabilities for effective joint warfighting.

The House’s leading specialist on defense reorganization remarked: “The overwhelming influence of the four services . . . is completely out of proportion to their legally assigned and limited formal responsibilities.”¹

With its desire to create a more appropriate balance between joint and service interests as a backdrop, Congress declared eight purposes for the act, the last having two parts:

- to reorganize DOD and strengthen civilian authority
- to improve the military advice provided to the President, National Security Council, and Secretary of Defense

The Honorable James R. Locher III was a professional staffer with the Senate Committee on Armed Services and served as assistant secretary of defense for special operations and low intensity conflict.



DOD (R.D. Ward)

- to place clear responsibility on the commanders of the unified and specified combatant commands for the accomplishment of missions assigned to those commands

- to ensure that the authority of commanders of unified and specified combatant commands is fully commensurate with the responsibility of those commanders for the accomplishment of missions assigned to those commands

- to increase attention to strategy formulation and contingency planning

- to provide for the more efficient use of defense resources

- to improve joint officer management policies

- otherwise to enhance the effectiveness of military operations and improve DOD management and administration.

Civilian Authority

In its mid-1980s examination of defense organization, Congress found numerous obstacles precluding exercise of effective civilian authority, particularly by the Secretary of Defense. Many members of Congress agreed with a former defense official's summation of the Secretary's position: "His real authority is not as great as it seems, and his vast responsibilities are not in reality matched by commensurate powers."²

In a congressional report entitled *Defense Organization* published in 1985, the Secretary's efforts were seen as "seriously hampered by the absence of a source of truly independent military

the Joint Chiefs provided the Secretary with watered down advice

advice." The Joint Chiefs logrolled on issues of concern to one or more services and provided the Secretary with watered down advice. This forced the Office of the Secretary of Defense to carry the full burden of challenging the services, individually and collectively, on policies and programs. *Defense Organization* assessed the negative outcome:

*The natural consequence has been a heightening of civil-military disagreement, an isolation of OSD, a loss of information critical to effective decisionmaking, and, most importantly, a political weakening of the Secretary of Defense and his OSD staff. The overall result of interservice logrolling has been a highly undesirable lessening of civilian control of the military.*³

Confusion concerning the roles of the service secretaries ranked next on the congressional list of problems hampering the authority of the Secretary of Defense. In creating the position of Secretary of Defense, the National Security Act of 1947 never specified the relationship of the new office to the service secretaries. The bitter postwar controversy over military unification precluded settling this

issue. The 1947 law preserved considerable independence for the civilian heads of the military departments. Although subsequent amendments strengthened the Secretary's power and staff, the act did not prescribe his relationship to service secretaries. Not surprisingly, the civilian heads of services devoted considerable energy to advocating service positions, often at the expense of the Secretary's broader agenda.

Numerous Goldwater-Nichols prescriptions addressed these problems. Three stand out. First, desiring to leave no doubt as to the authority of the Secretary, Congress stated in the report's language, "The Secretary has sole and ultimate power within the Department

of Defense on any matter on which the Secretary chooses to act." Capitol Hill designed this provision to end claims by defense officials to jurisdictions that were independent of the Secretary's authority.

Second, in designating the Chairman as the principal military adviser, Congress envisioned him becoming an ally of the Secretary with a common department-wide, nonparochial perspective. This change sought to provide the Secretary with independent military advice and also end the civil-military nature of past Pentagon disputes.

Third, the law specified the responsibilities of the service secretaries vis-à-vis the Secretary of Defense. In prescribing relationships among the most senior civilian officials, Congress filled a void that had existed for nearly forty years.

Civilian authority has been strengthened. Goldwater-Nichols has empowered the Secretary to effectively lead and manage DOD. Former Secretary Dick Cheney found that the act "significantly improved the way the place functions." Of continuing service arguments against the act, Cheney commented in an interview which appeared in *Proceedings* in May 1996:

I know each service wants to do its own thing, with its own authority. The fact is that [DOD] is difficult enough to run without going back to a system that, in my mind, served to weaken the civilian

authority of the Secretary and the President in terms of their ability to interact with and use that organization. I think Goldwater-Nichols helped pull it together in a coherent fashion. . . .⁴

Some critics claim that the Chairman's more influential role undermines civilian authority. Two groups have made this argument: those who are genuinely concerned about the health of civil-military relations and those who would like to regain a greater degree of service influence. Both groups are off the mark. Although Goldwater-Nichols increased the role of the Chairman, it carefully ensured that the Secretary could use his vast powers to control the Nation's top officer. One analysis of this controversy concluded, "No evidence exists to suggest that civilian control of the military, properly understood, has atrophied. The President and Congress determine policy, from force structure and acquisition to the use of military force."⁵

Military Advice

In 1982 the Chairman, General David Jones, testified that, "the corporate advice provided by the Joint Chiefs of Staff is not crisp, timely, very useful, or very influential." Recalling the pre-Goldwater-Nichols era, another

former Chairman, Colin Powell, pointed out in his recent memoir, *My American Journey*:

Almost the only way the chiefs would agree on their advice was by scratching each other's back. Consequently, the sixteen-hundred-member Joint Staff that worked for the JCS spent thousands of man-hours pumping out ponderous, least-common-denominator documents that every chief would accept but few Secretaries of Defense or Presidents found useful. . . . In my judgment, this amorphous setup explained in part why the Joint Chiefs had never spoken out with a clear voice to prevent the deepening morass in Vietnam.

In answer to the problem of inadequate military advice, Congress crafted some of the most far-reaching provisions of Goldwater-Nichols. The act made the Chairman the principal military adviser, transferred duties to him previously performed by the corporate Joint Chiefs, and assigned new duties. To assist him, Congress created the position of Vice Chairman as the second-ranking military officer. Last, Congress gave the Chairman full authority over the Joint Staff.

The quality of military advice has greatly improved according to its principal recipients. The most comprehensive assessment of post-1986 military

advice concluded that the act "has made a significant and positive contribution in improving the quality of military advice."⁶ Cheney found that having the Chairman as principal military adviser "was a significant improvement" over the "lowest common denominator of whatever the chiefs collectively could agree upon." Higher civilian authority has not accepted lingering criticism from the services that their views are now under represented, especially in operational matters.

Clear Responsibility

Congress found the operational chains of command to be both confused and cumbersome. The roles of the Secretary and Joint Chiefs in the chain were uncertain. Despite the removal of the military departments

the act prescribed the chain of command as running from the President to the Secretary to the CINC

from the chain of command in 1958, the chiefs retained de facto influence over combatant commands, adding to the confusion.

To achieve its objective of placing clear responsibility on CINCs, Capitol Hill clarified the chain to each commander and emphasized that all were responsible to the President and Secretary for the performance of assigned missions. The act prescribed the chain of command as running from the President to the Secretary to the CINC. The Joint Chiefs, including the Chairman, were explicitly removed.

Opinion is universal that this objective of Goldwater-Nichols has been achieved. Senior officials and officers repeatedly cite the benefits of a clear, short operational chain of command. Reflecting on the Gulf War, General Norman Schwarzkopf said, "Goldwater-Nichols established very, very clear lines of command authority and responsibilities over subordinate commanders, and that meant a much more effective fighting force." As Secretary of Defense William Perry later said to the Senate Committee on the Armed



DOD (R.D. Ward)

Empowering Eisenhower's Concept

In 1982, a Marine witness warned the Subcommittee on Investigations of the House Armed Services Committee that acceptance of measures under consideration to reorganize the Joint Chiefs would be tantamount to creating a "general staff system." The most far-reaching proposal which was then being contemplated would have made the Chairman an adviser in his own right instead of merely a spokesman for the chiefs. The hearings and legislative proceedings that eventually led to passage of the Goldwater-Nichols Act continued for four more years. During that time, Congress rejected all proposals to create a general staff. But with enactment of the law, it decisively rejected the existing DOD structure. What organizing concept did Congress embrace?

De Jure Organization

While the answer was not explicitly stated in hearings, reports, or debate, Congress harked back to the concept proposed under the Eisenhower administration in 1958 to guide reorganization. The National Security Act of 1947 resulted in what President Eisenhower described as "little more than a weak confederation of sovereign military units." The amendments of 1949, 1953, and 1958 sought to overcome unworkable arrangements. As part of the 1958 amendments, the President proposed and Congress approved the bifurcation of DOD into administrative and operational chains of command. A review of the act as amended in 1958 reveals that both the President and Congress shared a concept of just how they intended to organize the defense establishment.

Congress created DOD to replace the originally loose-knit National Defense Establishment. By 1958 the Secretary of Defense had metamorphosed in law from a weak general overseer to the most powerful official with "authority, direction, and control" over all DOD. Below him, the law created two chains of authority, one to military departments and another to joint elements. Military departments were to prepare forces for combat—*organize, train, and equip*—and provide logistic, administrative, and other support. They were thus charged with "maintaining" the Armed Forces.

The law made the joint side responsible for employing the forces provided by the military departments. The Joint Chiefs, assisted by the Joint Staff, would provide advice to the President, Secretary, and National Security Council as well as conduct military planning and related activities.

CINCs, who headed unified and specified commands consisting of combat forces provided by the services, were made responsible for military missions assigned by the President—winning the Nation's wars and coping with lesser contingencies. At those echelons below the CINCs were "employing" and "maintaining" chains of authority that split under the Secretary but were rejoined.

De Facto Organization

This description of the post-1958 de jure organizational model shows that it is remarkably similar to that found in law today. If Congress was satisfied with the legislative model of DOD it established by 1958, why was the Goldwater-Nichols Act needed? The answer is that what exists in law does not necessarily exist in fact.

Prior to 1986—despite the de jure model—DOD was dominated by the services, which had been traditionally responsible for planning and warfighting as well as preparing our forces for war. The services were unwilling to relinquish operational functions to a joint system. They continued to dominate both the maintaining and employing sides of DOD. The services exercised vetoes over JCS advice and controlled the weak unified commands. As a consequence, joint institutions failed to become strong and effective.

Making de Facto de Jure

With Goldwater-Nichols, Congress again tried to realize the legislative model that emerged in 1958. Though some titles of the act modified the military departments and defense agencies, the most fundamental provisions were designed to strengthen joint positions and organizations. The act designated the Chairman as the principal military adviser, established a Vice Chairman, created a joint personnel system, and empowered CINCs. It attempted to make de jure and de facto more nearly one and the same.

Because Goldwater-Nichols emphasized joint institutions, one could regard jointness as the animating characteristic of defense organization. That would be a mistake. If jointness were the basic organizing principle, a general staff with a single chain of authority might be the concept for DOD. Congress focused on joint institutions to achieve a counterpoise to the services suggested in the legislative model. The balance between maintaining and employing—input and output—serves as an organizing principle. Eisenhower conceptualized, and the law had anticipated, this balance in 1958. Twenty-eight years later, the Goldwater-Nichols Act made it possible.

—Archie D. Barrett
Principal Deputy Assistant Secretary of the
Army for Manpower and Reserve Affairs

Services, "All commentaries and after-action reports on [Desert Shield/Desert Storm] attribute the success of the operation to the fundamental structural changes in the chain of command brought about by Goldwater-Nichols."

Commensurate Authority

Congress found the combatant commands to be weak and unified in name only. They were loose confederations of powerful service components. The services used *Unified Action Armed Forces* to strictly limit the authority of CINCs and give significant autonomy to service component commanders. This situation had prevailed throughout the postwar period as evidenced by a Blue Ribbon Defense Board report in 1970 that found unification of "either command or the forces is more cosmetic than substantive."

To correct this violation of command principles, Congress specified the command authority of CINCs. The Goldwater-Nichols Act addressed the command functions of giving authoritative direction, prescribing the chain of command, organizing commands and forces, employing forces, assigning command functions to subordinate commanders, coordinating and approving aspects of administration and support, selecting and suspending subordinates, and convening courts-martial.

In prescribing the authority of CINCs, Congress modeled the law on the authority which the military had traditionally given to unit commanders. Initial service claims that the legislation would make combatant commanders into warlords quickly vanished as the soundness of balancing authority and responsibility at CINC level—in line with military tradition—became apparent. It is now widely agreed that Goldwater-Nichols has achieved its objective of balancing the authority and responsibility of the combatant commanders. The effective performance of these commands in operations and peacetime activities provides convincing evidence in support of this judgment.

A minority view urges increased authority for the combatant commanders through a greater role in resource allocation. Not wanting to overly divert these

commands from their principal warfighting function, Congress intended that the Chairman and Joint Staff would be activists on behalf of the commands' resource needs. This approach still appears preferable to any scheme that would require greater involvement by the combatant commands.

Strategy Making and Planning

The two Armed Services Committees determined that planning in DOD was underemphasized and ineffective. Such planning was often fiscally unconstrained, and strategy and resources were weakly linked. Contingency plans had limited utility in crises, often because they were not based on valid political assumptions.

To increase attention to strategy making and contingency planning,

to achieve more efficient use of defense resources, Congress looked to the Chairman

Congress formulated four principal provisions. First, it required the President to submit an annual report on the national security strategy. Second, it instructed the Chairman to prepare fiscally constrained strategic plans. Turning to contingency planning, Goldwater-Nichols required the Secretary to give written policy guidance for the preparation and review of contingency plans. This guidance would provide the political assumptions for planning. The fourth provision prescribed a role for the Under Secretary of Defense for Policy in assisting the Secretary in his work on contingency plans. Congress intended this last prescription to overcome the jealous guarding of contingency planning by the Joint Chiefs which had precluded sufficient staff support for meaningful review and direction by the Secretary.

The Goldwater-Nichols Act has increased attention to both strategy making and contingency planning. The quality of strategy documents has varied, but in every case their value has been superior to their pre-Goldwater-Nichols predecessors. The new national military strategy, which envisioned fighting two major regional conflicts nearly simultaneously, provided a

timely, thoughtful strategic response to the end of the Cold War.

Progress on contingency planning was modest until recently. OSD has been inconsistent in performing its responsibility to prepare contingency planning guidance. The continuing reluctance of the Joint Staff to reveal contingency plans—both deliberate and crisis—to civilian officials has blocked appropriate collaboration. Although DOD has surmounted these problems lately, the required interaction between policy and operational planners is not yet assured.

Resource Use

Testimony before Congress revealed that vague and ambiguous DOD objectives permitted service interests rather than strategic needs to play the dominant role in shaping resource decisions. The Secretary's resource management was also weakened by the lack of an independent military assessment of service programs and budgets.

To achieve its objective of providing for more efficient use of defense resources, Congress looked to the Chairman for an independent military perspective that had been lacking. Capitol Hill formulated six new resource-related duties for him. Two of the most important were advising the Secretary on priorities for combatant command requirements and on how well the programs and budgets of the military departments and other DOD components conformed with strategic plans and CINC priorities. The Chairman was also empowered to submit alternative program and budget recommendations to the Secretary.

Implementation has not achieved the potential of the Goldwater-Nichols reforms with the exception of General Powell's effective use of his resource advisory role in formulating the Base Force. Reducing the Cold War force structure by 25 percent represented the most significant and difficult resource issue faced by the Pentagon over the last decade.

Despite that critical contribution, Chairmen have seldom provided definitive resource advice to Secretaries of Defense. Recent developments could alter this. Admiral William Owens, while serving as Vice Chairman, instituted a number of innovative changes to improve the support by the Joint Requirements Oversight Council (JROC) to the Chairman's formulation of resource advice. Creating joint warfighting capability assessments represents a dramatic advancement in analyzing service programs against mission requirements.

Unfortunately, the JROC process could be misused. If instead of informing the independent advice of the Chairman JROC were used to prenegotiate issues in the old logrolling fashion, the military would come full circle to the wasteful, pre-Goldwater-Nichols days. Such an approach also raises the possibility of the services locking arms on significant resource issues to politically overpower the Secretary and Congress. If the Chairman permits these activities and surrenders his independent perspective, he will abandon the intentions of Goldwater-Nichols. As use of JROC in improving resource advice advances, the Secretary must guard against such unfavorable practices.

Joint Officer Management

The 1985 report on *Defense Organization* concluded that, "military officers do not want to be assigned to joint duty; are pressured or monitored for loyalty by their services while serving on joint assignments; are not prepared by either education or experience to perform their joint duties; and serve for only a relatively short period once they have learned their jobs." Viewing the Joint Staff and headquarters staffs of unified commands as the most important military staffs within DOD, Capitol Hill found this situation to be intolerable.

Title IV of Goldwater-Nichols established procedures for selection, education, assignment, and promotion of joint duty officers. Congress and DOD fought the last Goldwater-Nichols battles over these provisions. The services resisted a joint officer personnel system since they knew that loss of absolute

control of officer promotions and assignments would weaken their domination of the Pentagon. Congress was equally determined since it had concluded in *Defense Organization*, "The current system results in incentives to protect service interests rather than to think in joint terms. Joint thinkers are likely to be punished, and service promoters are likely to be rewarded."

The joint officer incentives, requirements, and standards prescribed by the act have notably improved the performance of those selected to serve in joint duty assignments. Secretary Cheney judged in his recent interview in *Proceedings* that the requirement for joint duty "prior to moving into senior leadership positions turned out to be beneficial." He also felt that as a result of joint officer policies "the Joint Staff is an absolutely vital part of the operation."

General Schwarzkopf found the same result in his command. Of his subordinates during the Gulf War, he told the Senate Committee on Armed Services, "the quality of the people that were assigned to Central Command at all levels changed dramatically as a result of Goldwater-Nichols."

These positive results were achieved despite indifferent implementation of the joint officer provisions by OSD and the Joint Staff. The failure over the last decade to develop a DOD directive to govern the joint officer management program confirms a lack of commitment on the part of top civilian and military organizations. The services were not indifferent. They made vigorous efforts to minimize the impact of the legislation on their interests. Senior joint officers—the beneficiaries of improved joint staffs—took little interest in the issue. The Chairman when Goldwater-Nichols was enacted, Admiral William Crowe, later wrote of his unfavorable view of title IV:

... the detailed legislation that mandated every aspect of the "joint corps" from the selection process and the number of billets to promotional requirements was, I believe, a serious mistake that threatened a horrendous case of congressional micro-management. In this instance the chiefs were unanimous in their opposition, and I agreed with them wholeheartedly.⁷



Advancing on Iraqi position during Desert Storm.

U.S. Army (Lael M. Torres)

Not surprisingly, Joint Staff implementation of title IV was sympathetic to attitudes of the services for many years.

Congress had hoped that the department, after several years of implementing title IV, would conceptualize a better approach to joint officer management. That has not occurred. The Goldwater-Nichols objective of improving joint officer management has been achieved, but DOD still lacks a vision of its needs for joint officers and how to prepare and reward them.

Operational Effectiveness

For forty years after World War II, service separateness denied the defense establishment the unity to conduct joint warfare. In 1983 Secretary James Schlesinger described the problem:

*In all of our military institutions, the time-honored principle of "unity of command" is inculcated. Yet at the national level it is firmly resisted and flagrantly violated. Unity of command is endorsed if and only if it applies at the service level. The inevitable consequence is both the duplication of effort and the ultimate ambiguity of command.*⁸

As was pointed out in *Defense Organization*, "operational deficiencies evident during the Vietnam War, the seizure of the *Pueblo*, the Iranian hostage rescue mission, and the incursion into Grenada were the result of the failure to adequately implement the concept of unified command." Congress focused efforts on providing

CINCs with sufficient authority to both ensure unity of command during operations and effectively prepare for assigned missions. The act also assigned the Chairman responsibility for developing joint doctrine and joint training policies.

The overwhelming success of Just Cause and Desert Shield/Desert Storm revealed the extent to which the act had unified the Armed Forces. Shortly after the Gulf War, an article in *Forbes* noted, "The extraordinarily efficient, smooth way our military has functioned in the Gulf is a tribute to [Goldwater-Nichols], which shifted power from individual military services to officials responsible for coordinating them."⁹ The *Washington Monthly* added, "Goldwater-Nichols helped ensure that this war had less interservice infighting, less deadly bureaucracy, fewer needless casualties, and more military cohesion than any major operation in decades."¹⁰

Commenting on the impact of Goldwater-Nichols over the past ten years, Secretary Perry said in a speech last summer honoring Senator Sam Nunn, "It dramatically changed the way that America's forces operate by streamlining the command process and empowering [the Chairman] and the unified commanders. These changes paid off in . . . Desert Storm, in Haiti, and today in Bosnia."

Joint doctrine and training have experienced more modest progress. Of

the first generation of joint doctrine, the Commission on Roles and Missions of the Armed Forces critically declared in its 1995 report, *Directions for Defense*, "In many cases, it represents a compendium of competing and sometimes incompatible concepts (often developed by one 'lead' service)." The designation of U.S. Atlantic Command (ACOM) as joint force integrator, trainer, and provider has great potential for enhancing military operations. To date, parochial attitudes of the services and some geo-

parochial attitudes of the services and some geographic CINCs have hamstrung ACOM performance

graphic CINCs and weak support by the Joint Staff have hamstrung ACOM performance.

Management and Administration

Many of the provisions of Goldwater-Nichols focused on improving DOD management and administration. But in adding this objective Congress had in mind specific structural problems that were hindering sound management. These included excessive spans of control, unnecessary staff layers and duplication of effort, continued growth in headquarters staffs, poor supervision of defense agencies, and an uncertain division of work among defense components.

The Secretary's span of control especially concerned Congress. Forty-one senior officials and officers, excluding his deputy and staff, reported directly to him. To reduce this span, the act required the Secretary to delegate supervision of each defense agency and field activity to an OSD official or the Chairman. The Chairman's role as overseer of the unified commands also helped to lessen the Secretary's supervisory burdens.

Other provisions consolidated certain functions in service secretariats, limited the number of both deputy chiefs and assistant chiefs on the service staffs, reduced by 15 percent the size of the headquarters staffs of military departments including general

and flag officer positions, and cut some other staffs by 10 to 15 percent.

Goldwater-Nichols remedies for these management problems were largely ineffective. The defense bureaucracy remains far too large. Duplication of effort is still a problem. DOD also lacks a concept for the appropriate division of work among its major components.

In the broad sweep of American military history, the recent years have been remarkable for the frequency and scope of significant achievements and successes by the Department of Defense. Superb leadership played an important role as did the development of doctrine, training, education, and materiel that preceded the passage of the Goldwater-Nichols Act. Nevertheless, a significant body of evidence and numerous public assertions by senior defense officials and military officers argue that the act enormously contributed to the positive outcomes of recent years.

During the last decade, Goldwater-Nichols attained most of the objectives established for it, helping to transform and revitalize the military profession in the process. The act validated former Secretary Schlesinger's prediction that, "Sound structure will permit the release of energies and of imagination now unduly constrained by the existing arrangements." In some areas, developments inspired by the act are still evolving and adding more luster to the law's accomplishments. In a few others, the accomplishments still leave much to be done.

Secretary Perry used an historic yardstick in praising the law: "... [Goldwater-Nichols] is perhaps the most important defense legislation since World War II." And, while serving as Vice Chairman, Admiral Owens saw the legislation in even larger terms: "Goldwater-Nichols was the watershed event for the military since [World War II]." Those assessments by Perry and Owens do not reach back as far as Congressman Aspin's; but it is clear that, in accord with congressional expectations, the Goldwater-Nichols Act has profoundly enhanced the joint warfighting capabilities of the Armed Forces. **JFQ**

NOTES

¹ Archie D. Barrett, *Reappraising Defense Organization* (Washington: National Defense University Press, 1983), p. xix.

² John G. Kester, "The Office of the Secretary of Defense with a Strengthened Joint Staff System," in *Toward A More Effective Defense*, edited by Barry M. Blechman and William J. Lynn (Cambridge: Ballinger, 1985), p. 187.

³ U.S. Congress, Senate, Committee on Armed Services, *Defense Organization: The Need for Change*, committee print, Senate report 99-86, 99th Cong., 1st sess., 1985, p. 620.

⁴ "About Fighting and Winning Wars—An Interview with Dick Cheney," *U.S. Naval Institute Proceedings*, vol. 122, no. 5 (May 1996), p. 33.

⁵ Mackubin Thomas Owens, "Civilian Control: A National Crisis?" *Joint Force Quarterly*, no. 6 (Autumn/Winter 1994-95), p. 83.

⁶ Christopher Allan Yuknis, "The Goldwater-Nichols Act of 1986—An Interim Assessment," in *Essays on Strategy X*, edited by Mary A. Sommerville (Washington: National Defense University Press, 1993), p. 97.

⁷ William J. Crowe, Jr., *The Line of Fire* (New York: Simon & Schuster, 1993), p. 158.

⁸ U.S. Congress, Senate, Committee on Armed Services, *Organization, Structure and Decisionmaking Procedures of the Department of Defense*, hearings before the Committee on Armed Services, 98th Cong., 1st sess., 1983-1984, part 5, p. 187.

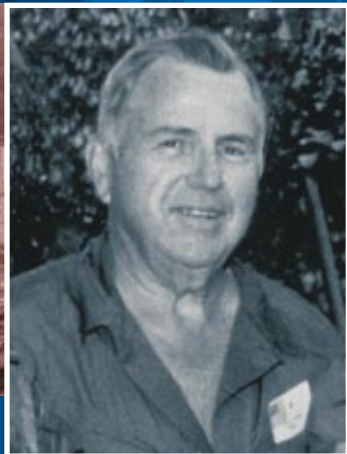
⁹ Malcolm S. Forbes, Jr., "Fact and Comment," *Forbes*, vol. 147, no. 6 (March 18, 1991), pp. 23-24.

¹⁰ Katherine Boo, "How Congress Won the War in the Gulf," *The Washington Monthly*, vol. 23, no. 10 (October 1991), p. 31.

This may be the last piece of legislation that I will have the honor to offer for consideration by the Senate. If it is, I will have no regrets. I will have had the privilege of serving in the Senate on . . . the day that our soldiers, sailors, airmen, and marines were given the organizational and command arrangements that will enable them to effectively accomplish their vital missions. . . .

—Barry M. Goldwater
September 16, 1986

Barry M. Goldwater represented Arizona in the Senate for 30 years. A major general in the U.S. Air Force Reserve, he was the Republican Presidential candidate in 1964 and served as chairman of the Senate Armed Services Committee during the debates on defense reorganization.



Bill Nichols, a Democrat from Alabama's 3rd district, died while serving his eleventh term in Congress. A combat veteran of World War II, he chaired the Investigations Subcommittee of the House Armed Services Committee during its 1983–86 work on military reform.

[This bill] fulfills the aims of President Eisenhower, who said almost three decades ago, "Separate ground, sea, and air warfare are gone forever. . . . Strategic and tactical planning must be completely unified, combat forces organized into unified commands. . . ." Congress rejected President Eisenhower's appeals in the 1950s. Today, 36 years later, we can now report: mission accomplished.

—Bill Nichols
September 11, 1986

Defense Organization TODAY

By JOHN P. WHITE

Since the National Security Act of 1947 unified the defense establishment, Secretaries of Defense have struggled to assign roles, missions, and functions among major DOD components, including the Joint Chiefs of Staff, military services, and unified commands. Once responsibilities were actually assigned, securing performance of them—especially as various components exerted undue influence—proved an even greater challenge.

Successive Secretaries found that they lacked authority to force compliance. Other senior leaders—such as the Chairman and CINCs—also lacked means to carry out their responsibilities. Weaknesses in central civilian as well as military authority together with ambiguities in the original law promoted interservice competition in both military operations and resource allocation.

The Goldwater-Nichols Act addressed these issues by more clearly defining responsibilities and providing authority to perform them. Empowered by Goldwater-Nichols reforms, DOD has made great strides in preparing for joint operations and managing defense resources.

Operational Responsibilities

Among its major accomplishments, the Goldwater-Nichols Act distinguished between the operational

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The Secretary, President, and Chairman meeting at the Pentagon.



DOD (F.D. Ward)

contributions of the services and unified commands. That distinction provided a sound basis for effective and efficient operations by assigning the specific responsibilities for organizing, training, and equipping forces to the services, while delegating the planning and execution of those operations to unified commands. The sharp division of responsibilities among services, unified commands, and other DOD components eliminated much of the previous ambiguity.

Additionally, Goldwater-Nichols equipped the Chairman with a definitive role in relation to the service chiefs and CINCs, made him principal military adviser to the President and

Secretary, assigned the Joint Staff to him, and made clear that the chain of command ran from the President through the Secretary to the CINCs.

Before the act the services dominated DOD activities. Continuing service negotiations over their roles heavily influenced planning and operational decisions as well as resource allocation. The perspective of the Chairman and the ideas, needs, and plans of the CINCs did not sufficiently inform major operational and resource decisions.

Further, forceful exercise of institutional service roles—based on their individual areas of responsibility, such as unchallenged Navy leadership in



Self-propelled howitzer,
Bosnia-Herzegovina.

55th Signal Company (Glenn W. Suggs)

maritime operations—diluted CINC plans for theater-wide joint operations which used their service components. Consequently, truly joint operations seldom materialized. In addition, CINCs were unable to influence service plans in the case of modernization or force development—though they were expected to fight and win with the forces provided by the services.

the conventional view assumes that the act tipped the scales in favor of jointness over service interests

By ensuring that CINCs had the authority to prepare for and conduct military operations, Goldwater-Nichols fundamentally changed the way in which DOD functioned. The law increased the authority of CINCs over planning, developing, training, and deploying forces for operations. At the same time, the Chairman—supported by the Joint Staff—assumed greater prominence as the channel of CINC influence over these activities. With the Chairman reporting to the Secretary and directing an effective staff (enhanced qualitatively by the Goldwater-Nichols requirements for joint duty as a prerequisite for promotion), a major reallocation of responsibilities occurred.

The conventional view assumes that the act tipped the scales in favor of jointness over service interests. Some believe that it somehow devalued service contributions to combat capability and too severely restricted their roles. This argument persists in viewing DOD functions through the prism of interservice and service-CINC competition.

In fact, however, the law defined and enhanced the value of the services by focusing them on core competencies which involve delivering combat capability to CINCs. Only the services can execute such functions. By emphasizing core competencies, Goldwater-Nichols strengthened the capability of each service to support CINCs in their warfighting role.

Service Responsibilities

The services remain the bedrock of military capabilities. Their unique competencies enable joint warfighting. Differing perspectives—framed by expertise in certain technologies and ways of warfare—are essential to operational success. The services organize, train, and equip forces with special capabilities and supply them to CINCs. The challenge, answered by Goldwater-

Nichols, was thus to orient the services toward those roles which grow out of their institutional strengths, supporting joint operations today while assuring the availability of effective forces for the future.

We have come far in this regard over the last ten years. Strengthening the authority of CINCs to conduct joint operations and clarifying service roles have led to an even greater use of service capabilities. In a recent speech to an Air Force doctrine seminar at Maxwell Air Force Base, General Ronald Fogleman summarized, “We want each service to organize, train, and equip forces that are dominant in their medium. We strive to make our forces interoperable so that the joint force commander can combine them . . . for maximum effect.” The specific contributions of the services exploit their expertise. For example, they have principal responsibility for research, development, test, and evaluation of weapon systems for their individual mediums, as well as for developing and articulating innovative concepts for their employment. The services understand this responsibility, which in the case of the Air Force was characterized by General Fogleman as follows: “We owe it to the taxpayers to push the envelope of air and space employment to seek warfighting advantages that save lives and resources. We are the Nation’s premier advocates for extracting every ounce of advantage from operating in the mediums of air and space.”

The performance of all the services in this area is undeniable. Technological advances have afforded us the best military systems. The services engage in intramural competition in meeting this responsibility; but competition can be healthy in looking for alternative technological solutions. As the Commission on Roles and Missions of the Armed Forces (CORM) concluded in its report, “Service competition has delivered innovative systems and technologies. The key is to manage such competition to assure that it is not wasteful.”

More broadly, service pride, tradition, competition, and cultures encourage them to “push the envelope” in their various roles. Further, the expertise, creativity, and professionalism



Marine tank retriever during CJTFEX '96.

brought to the staffs of unified commands by members of each service ensure that CINCs employ service forces effectively. But the services must also

Goldwater-Nichols highlighted the need for the development and promulgation of joint doctrine

integrate their efforts into CINC utilization plans. Resource decisions must reflect the needs of CINCs as well as the institutional orientations of the services, and service operations must meld into joint operations.

Chairman and CINC Roles

To better support warfighting needs, Goldwater-Nichols complemented the responsibilities of the services with a stronger role for the Chairman in planning and resource allocation processes. This was not merely a cosmetic change, but a fundamental adjustment in the relationship among the Chairman, services, and CINCs. Today, CINCs have a direct input to planning and programming which is consistent with their responsibility for warfighting.

Adjusting the responsibility of the Chairman from consensus-builder to principal military adviser to the President and Secretary gave teeth to the Chairman's sponsorship of CINC concerns and provided more effective

joint planning, doctrine, and support. The intimate involvement of the Chairman and Joint Staff in key resource decisions—for example, the planning and programming of military forces—gives CINCs a strong voice in them. The role of the Vice Chairman as co-chair of the Defense Acquisition Board increases the joint view in acquisition decisions as well.

Furthermore, the Chairman controls joint doctrine, which is essential to defining how joint operations will integrate service-provided forces, and how joint commanders will conduct those operations. In other areas such as joint training, logistics, and command and control, the influence of the Chairman has grown commensurately.

Publication of *Joint Vision 2010* represents the most significant recent development in this maturing process. In the past, the services relied almost exclusively on their own visions of the future to guide decisions about developing forces. *Force XXI, Forward . . . From the Sea*, and *Global Reach, Global Power* are valuable documents in that they articulate service perspectives on use of their forces; but they are incomplete without a joint warfighting vision that ties them together and defines the total requirement. *JV 2010* accomplishes this by serving as a conceptual template for channeling the vitality and innovation of the Armed

Forces to leverage "technological opportunities to achieve new levels of effectiveness in joint warfighting." It focuses on achieving dominance across a range of operations required in the current era and beyond.

Joint Doctrine and Training

The services base their doctrine on experience and expertise in their mediums of operation. Joint doctrine guides the integration and use of these systems and forces in joint operations.

Goldwater-Nichols and CORM highlighted the need for the development and promulgation of joint doctrine. Assigning joint doctrine to the Chairman has already enhanced its development (together with increased funding for the Joint Warfighting Center). It has reduced the time needed to develop doctrine from four years to two. Improvements are evident in key areas, including doctrine for joint logistics, operations other than war, close air support, and theater air defense.

Closely related to doctrine is training, which is more than a set of annual theater exercises. It focuses on integrating service-provided forces from their earliest training events. This effort is encouraged by a joint training system which will be in place by FY98 to identify the funding levels required to fully resource CINC plans for joint training. The resource allocation process is already resolving CINC training concerns.

DOD is working to prioritize joint training requirements to guide the services in allocating readiness funding. A major step is the evolving role of U.S. Atlantic Command (ACOM) as joint force integrator and trainer. Through initiatives such as the Joint Training Analysis and Simulation Center in Suffolk, Virginia, ACOM is bringing a greater focus to the joint and combined training of assigned forces. These efforts are already paying big dividends by training commanders and staffs to plan and direct operations in the joint environment and by training forces to meet specific CINC requirements. Other initiatives include the joint simulation system—scheduled to be operational by FY99—which will distribute a

IMEF Combat Camera (A. Olgun)

Cautions on Goldwater-Nichols

A decade has passed since the passage of the Goldwater-Nichols Act. This law sought to make two fundamental changes in the authority and functioning of the military side of the defense establishment. It strengthened both the advisory role of the Chairman and the command authority of unified commanders—combatant commanders as the legislation refers to them. As intended by Congress, this strengthening implicitly diminished the influence and authority of service chiefs and service commanders in the field. Proponents of the act viewed these officers as obstructionists to smooth national military command advice and cohesive multiservice operational coordination in the field. “Jointness” became a byword of military cohesion, and “purple” became the color of choice.

The law has proven effective in various ways. The services seem to understand each other better and work together more efficiently. The development and upward flow of military advice are unquestionably smoother, and that advice is arguably as good or better than it was in the “bad old, good old days.” Interservice relationships are stronger.

On balance, Goldwater-Nichols was sound, and its impact on the Armed Forces has been good. As we enter this law’s second decade, however, caution lights need to be observed as the generation of officers and the framers of the legislation—who lived on both sides of the reforms it wrought—depart with their vision of what it did and did not seek to do.

Caution light 1. Remember that effective jointness means blending the distinct colors of the services into a rainbow of synergistic military effectiveness. It does not suggest pouring them into a single jar and mixing them until they lose their individual properties and come out as a colorless paste. No army that has worn purple uniforms ever won a battle. Balanced military judgment and combat effectiveness depend upon service individuality, culture, training, and interpretation of the battlefield. The essence of jointness is the flexible blending of service individualities.

Caution light 2. Consistent with their explicit roles in law and their derived functions, the service chiefs and service component commanders are responsible for building forces which bring unique capabilities to the table. Recruiting, training, organizing, equipping, fashioning programs, making decisions, and acquiring resources to provide service capabilities is the business of service secretaries and service chiefs and of Congress. The creep of the Joint Staff into areas of resource allocation and program evaluation and their imposition on unified commanders—with a resultant administrative expansion and shift in emphasis toward programmatic—threatens the national-level focus on strategic military planning and advice and diffuses the operational focus at the combatant commander level.

Caution light 3. The Joint Chiefs, a corporate body of the Nation’s senior military officers, were formed as a council to provide military advice to, and implement decisions of, the President and Secretary of Defense. As Joint Chiefs, they bear dual identities. They are not simply service chiefs come to a meeting. The Chairman is their spokesman, senior among them, and designated principal military adviser—but not a commander. The member of the Joint Staff overheard during a disagreement among the chiefs as saying “This isn’t a group grope—the Chairman is in charge,” missed the intent of the Goldwater-Nichols Act. It is a “group grope” for effective military advice, and the Chairman can cast a deciding vote, but not a muzzling vote. Differentiate carefully between the roles of chiefs and those of the Chairman, Vice Chairman, and service members who make up the council of military advisers to the Commander in Chief known as the Joint Chiefs of Staff.

Caution light 4. Just as the Chairman is not a commander, the Joint Staff is not a general staff. Goldwater-Nichols is specific on that point. The Joint Staff is the hub around which service staffs are clustered to provide expertise, robustness, and depth. It is the blender of the rainbow of national military advice. Service views and advice—provided to the Joint Staff on behalf of each member of the Joint Chiefs—are ignored at the peril of balanced, joint military advice and cohesion within the joint system.

These are my cautions. They flow not from the intent of Goldwater-Nichols or from the improvements it effected but from the need for the upcoming generation to understand its intent and to avoid the consequences of misinterpretation.

—General Carl E. Mundy, USMC (Ret.)

common virtual environment among services, CINCs, simulation centers, and war colleges.

Likewise, the joint monthly readiness review, implemented by the Chairman in 1994, and the quarterly

Senior Readiness Oversight Council, chaired by the Deputy Secretary, provide the means to evaluate the readiness of CINC forces to include assessment joint training.

CINC Warfighting Needs

DOD has also implemented changes to assure that decisions on allocating resources reflect the views of CINCs. The planning, programming, and budgeting system (PPBS) remains the basis of DOD resource allocation, though it has evolved in important ways in recent years. The services can no longer conduct planning, programming, R&D, and force development independent of the needs of CINCs. Today, several avenues, including submission of CINC integrated priority lists, are used to assess their needs. The Chairman’s joint warfighting capability assessment (JWCA) process, which



EA-6B landing on board
USS George Washington.

U.S. Navy (Craig McClure)

functions through the Joint Requirements Oversight Council (JROC), builds on these assessments and develops options for the Secretary that track directly with service and defense agency programs and budgets. JWCA reviews capabilities for specified warfighting and support.

The services remain the primary sources of new mission needs statements that naturally reflect their preferences for warfighting—achieving dominance in their mediums. JROC reviews and validates such requirements in the joint context, with the goal of meeting the warfighting needs of CINCs as its primary objective. Chaired by the Vice Chairman, JROC includes the vice chiefs of each service. JROC benefits from JWCA and consultations with CINCs.

The JROC and the Defense Acquisition Board processes, led by the Under Secretary of Defense for Acquisition and Technology, are mutually

supporting systems that provide integrated and enduring decisions relating directly to the warfighting needs of CINCs. Both processes support resource allocation decisionmaking where the differing perspectives of the Chairman, services, CINCs, and DOD leadership converge. The Defense Acquisition Board and various program review processes, operated by the under secretary with representation from the Chairman and Joint Staff as well as the services, ensure the viability of service development programs within a joint context. In each case, decisionmaking integrates these perspectives of the service and CINCs.

Ultimately, the Secretary of Defense makes resource allocation deci-

CINC needs and the DOD drive for efficiency provided the impetus for numerous ongoing acquisition and management improvements. On a daily basis, DOD increases its reliance

the real issue is whether we have used the law to prepare for threats in the wake of the Cold War

on joint program management to use limited defense resources more efficiently. CINC warfighting needs and service programs both benefit from joint management in diverse programs such as a primary training aircraft and joint munitions. Likewise, support for

as giving the Chairman and CINCs clear authority over assigned service personnel and the ability to influence their careers gave new value to joint experience. Even more important were the requirements for joint education at the intermediate and senior service colleges and in the joint capstone course for general and flag officers. Joint education has broadened their experience and enriched their cultural development—enabling them to make even greater contributions to joint warfighting.

DOD has come a long way in executing the intent of Goldwater-Nichols. Arguments about changes in the relative power or influence of institutions miss the point. The real issue is whether we have used the law to prepare for the security challenges, threats, and missions which have arisen in the wake of the Cold War. In my view, the answer is yes.

But this evolution is not yet complete—far from it. Our goal is total battlefield dominance. Assuring that calls for more changes. Next year, DOD will conduct a quadrennial defense review as CORM recommended to examine the major issues we will confront in the 21st century. It will assess future international environments and develop a strategy to meet emerging threats. A fresh articulation of defense strategy will provide a framework for analyses of resources needed to meet force structure, modernization, infrastructure, and readiness requirements. Moreover, the review must weigh the need for further changes in defense organization ten years after the passage of the Goldwater-Nichols Act. In my view, we are on the correct path but more must be done.

JFQ



U.S. Air Force (Gudrun K. Cook)

sions in the context of PPBS with help from the Defense Resources Board, including representatives of the Chairman and services. Here, service views on long-range capabilities are rationalized with the necessarily short-term warfighting needs of CINCs.

Decisions that result from these efforts are taken at each phase of PPBS. Adjustments recommended in the past year attest to their success. These alterations include program changes to focus and limit unmanned aerial vehicles programs, procure additional C-17s, retire the EF-111, expand the use of the EA-6B, and adjust Marine munitions procurement to reflect joint capabilities.

theater combat forces benefits from the joint management of support in communications, logistics, and other areas of common need.

The real legacy of Goldwater-Nichols is that it changed the roles of the major DOD actors. It enabled the Joint Chiefs, services, and CINCs to focus on core competencies and encouraged them to work together. This landmark legislation also added a joint perspective to the outlooks of the services. Requiring joint duty as a prerequisite for promotion to flag rank as well

PAST Organizational Problems

By DAVID C. JONES

[Editor's Note: In 1981, General Jones attempted to initiate an internal reorganization of the joint system. After meeting substantial resistance in the Pentagon, he began to speak out publicly in early 1982. His call for reform resulted in a five-year examination by Congress of the need for defense reorganization that eventually led to the Goldwater-Nichols Act.

After retiring, Jones published an article in The New York Times Magazine that outlined problems in defense organization. An edited, abridged version of that piece appears here. Reading it today conveys a sense of how dysfunctional the joint system was at the time and how far jointness has progressed since the enactment of Goldwater-Nichols.]

General David C. Jones, USAF (Ret.), served as both Chairman of the Joint Chiefs (1978–82) and chief of staff, U.S. Air Force (1974–78).

During a late-afternoon meeting at the White House a few months ago, President Reagan, who had just returned from horseback riding at Quantico, turned to me in jest but with a touch of nostalgia and asked, “Isn’t there some way we can bring back the horse cavalry?” My reply was: “Just wait, Mr. President. We are starting by resurrecting battleships.”

Below the surface of this lighthearted exchange lie two pervasive problems within DOD. First, we are too comfortable with the past. Second, we

each service rests on imbuing its members with pride in its mission, its doctrine, and its customs

do not make a sufficiently rigorous examination of defense requirements and alternatives.

By their very nature, large organizations have a built-in resistance to change. As the largest organization in the free world, our defense establishment has most of the problems of a large corporation but lacks an easily calculated “bottom line” to force needed change. At the core are the Army, Navy, Marine Corps, and Air Force: institutions that find it difficult to adapt to changing conditions because of understandable attachments to the past. The very foundation of

each service rests on imbuing its members with pride in its mission, its doctrine, and its customs and discipline—all of which are steeped in traditions. While these deep-seated service distinctions are important in fostering a fighting spirit, cultivating them engenders tendencies to look inward and to insulate the institutions against outside challenges.

The history of our services includes striking examples of ideas and inventions whose time had come, but which were resisted because they did not fit into existing service concepts. The Navy kept building sailing ships long after the advent of steam power. Machine guns and tanks were developed in the United States, but the Army rejected them until long after they were accepted in Europe. The horse cavalry survived essentially unchanged right up until World War II despite evidence that its utility was greatly diminished decades earlier. Even Army Air Corps officers were required to wear spurs until the late 1930s.

But the Armed Forces are only part of the problem. DOD has evolved into a grouping of large, rigid bureaucracies—services, agencies, staffs, boards, and committees—which embrace the past and adapt new technology to fit traditional missions and methods. There is no doubt that the cavalry leaders would have quickly adopted a horse

which went farther and faster—a high-technology stallion. The result of this rigidity has been an ever-widening gap between the need to adapt to changing conditions and our ability to do so. Over the last two to three years the American public has become increasingly concerned over our deteriorating position in military power and convinced that we must devote more to our defenses than we did in the 1960s and 1970s. But after serving on the Joint Chiefs longer than anyone else in history and under more Presidents and Secretaries of Defense (four of each), and being a student of military history and organizations, I am convinced that fundamental defense deficiencies cannot be solved with dollars alone—no matter how much they are needed.

We do not think through defense problems adequately, and we are getting less capability than we should from our increased defense budgets. There is reason to believe that, faced with a contingency requiring a major joint operation, our performance would be below the level we should expect or need.

No one element of our defense establishment is singularly responsible for our problems. Those I will identify have existed too long to be the fault of any particular administration or of particular personalities in or out of uniform.

History books for the most part glorify our military accomplishments, but a closer examination reveals a disconcerting pattern:

- unpreparedness at the onset of each new crisis or war
- initial failures
- reorganizing while fighting
- building our defenses as we cranked up our industrial base
- prevailing by wearing down the enemy—by being bigger, not smarter.

We could do things poorly at the start of past wars and still recover because time was on our side.

The North during the Civil War was a striking example of a bureaucratized military establishment. Initially, the South had better leadership, was far more flexible, and was able to do a

great deal more with its limited resources and forces. The North suffered early defeats and encountered many leadership problems but finally won by virtue of overwhelming industrial output and military manpower.

We also had serious organizational problems during the Cuban campaign in the Spanish-American War. The interservice wrangling had been so great that the Army commander refused to let the Navy be represented at the formal surrender. Unfortunately, this was not the last case of split responsibilities and interservice conflicts obstructing our conduct of a war.

In the aftermath of the 1898 war the services, particularly the Army, instituted some organizational reforms. Despite a great deal of opposition, a chief of staff of the Army was created in 1903 and a chief of naval operations was established in 1916. But the War Department (the precursor of the Department of the Army and the Department of the Air Force) and the Navy Department continued to be riddled

amendments to the National Security Act did little to alter the relative influence of the joint system

with semi-autonomous, often intractable fiefdoms, branches, corps, departments, bureaus, and so forth.

World War I was the most tragic example of trying to win a war through mass and attrition. Thousands of young men gave their lives to advance a few yards over enemy trenches, only to be thrown back the next day at an equal cost to the enemy.

The emergence of the airplane as a major military asset during World War I should have alerted us to the need to adjust our doctrines and organizations to changing realities. The continued development of airpower could not help but blur the traditional distinction between land and naval warfare, but the Nation reacted to this phenomenon in a traditionally bureaucratic manner: each service developed its own airpower (today there are *four* airpower entities) and protected it with artificial barriers to obscure costly duplications. One barrier, established in

1938 (later rescinded), prohibited any Army Air Corps airplane from flying more than 100 miles out to sea.

The Army and Navy began World War II with authority and responsibility diffused. Each still had many semi-autonomous agencies with little coordination below the chief of service level. Soon after Pearl Harbor, General George C. Marshall, Army chief of staff, streamlined the Army by reducing the number of officers with direct access to him from 61 to 6. The Navy also made some adjustments. (The services have since slipped back into their old patterns. The number of officers having direct access to service chiefs—especially when the joint system is considered—is again very high.)

The Joint Chiefs were established early in 1942 as a counterpart to the British Chiefs of Staff Committee. Although the wartime chiefs addressed certain priority issues, to a great extent World War II was fought along service lines. General Dwight D. Eisenhower, in his United States (as distinct from his Allied) role, reported to Marshall. In the Pacific, the difficulties of integrating the operations of the services resulted in the establishment of two separate theaters: the Southwest Pacific Area, with

General Douglas MacArthur reporting to Marshall, and the Pacific Ocean Area, with Admiral Chester W. Nimitz reporting to Admiral Ernest J. King, chief of naval operations. Split authority and responsibility in the Pacific was a continuing problem and nearly caused a disaster during the battle of Leyte Gulf. Today the Pacific has been joined into one command and our combat commanders now report directly to the Secretary of Defense rather than to their service chiefs. But the Army, Navy, Marine, and Air Force components of our combat commands report both to their chiefs and combat commanders, and the service chiefs still have the greatest influence over their actions. Furthermore, many fundamental problems of the World War II joint system still exist below the surface.



DOD (Frank Hall)

Gen Jones (center) with the chiefs, 1979 (from left): GEN Edward C. Meyer, chief of staff, U.S. Army; ADM Thomas B. Hayward, chief of naval operations; Gen Lew Allen, Jr., chief of staff of the Air Force; and Gen Robert H. Barrow, commandant of the Marine Corps.

We won World War II despite our organizational handicaps, not because we were smarter, but once again because we and our allies were bigger. We had the time and geographic isolation to mobilize American industry and a superb code-breaking effort to aid our intelligence gathering.

As the war drew to a close, an exhaustive debate ensued on how to organize the postwar military. The Army favored a highly integrated system, but the Navy and others were strongly opposed, some fearing that the Army would dominate any integrated system. The Air Force, then still a part of the Army, supported integration but was primarily interested in becoming a separate service.

Those opposed to integration were backed by stronger constituencies, including powerful forces in Congress, than were the advocates of unification. Arguments that unification threatened civilian control over the military soon dominated the debate.

So after nearly two years of studies, debate, and political maneuverings, the National Security Act of 1947 emerged with a compromise military establishment: a loose confederation of large, rigid service bureaucracies—now four rather than three—with a Secretary powerless against them.

Amendments to the National Security Act in 1949, 1953, and 1958 strengthened the Secretary's authority and expanded the size and purview of his staff but did little to alter the relative influence of the joint military system and services.

President Eisenhower had recommended a much stronger joint system in 1953 and 1958, and his wisdom was borne out by our conduct of the Vietnam War—perhaps our worst example of confused objectives and unclear responsibilities both in Washington and in the field. Each service, instead of integrating efforts with the others, considered Vietnam its own war and sought to carve out a large mission for itself. For example, each fought its own air war, agreeing only to limited measures for a coordinated effort. “Body count” and “tons dropped” became the measures of merit. Lack of integration persisted right through the 1975 evacuation of Saigon—when responsibility was split between two separate commands, one on land and one at sea. Each of these set a different “H-hour,” which caused confusion and delays.

Our soldiers, sailors, marines, and airmen have acted bravely throughout our history. With few exceptions, our forces have performed well at the unit level. And there have been bright moments at the higher levels also. The landing at Normandy, Patton's charge

across France, the battle of Midway, and the landing at Inchon were brilliant strategic conceptions, valiantly executed. But these peaks in martial performance followed valleys in which the Nation found itself poorly prepared, poorly organized, and imperiled by inadequacies in Washington. In the past, we had time to overcome our mistakes. Our allies often bore the initial brunt, and we had the industrial capacity for a quick buildup in the military capacity needed to turn the tide. Today we can expect no such respite. Our allies could not delay the Soviet Union while we prepared, and our industrial base has fallen into a state of disrepair. Nuclear weapons have added new dimensions which make constant readiness even more critical. If we are to deter another conflict, or to succeed if one be thrust upon us, we must be prepared to do things right on the battlefield the first time.

A sound defense posture should begin with sound long-term planning, a means to measure progress, and authoritative direction and control to insure that all elements contribute to a well-defined objective. On the surface, our system appears to provide such an orderly approach. The process starts with a *Defense Guidance* document prepared by the Office of the Under Secretary of Defense for Policy, based on administration policy and fiscal guidance and on inputs from field commanders, services, Joint Chiefs, the OSD staff, and other relevant sources. The ser-



Joint Chiefs of Staff,
February 1950.

DOD

vices build their annual programs on the basis of the *Defense Guidance's* objectives and budget targets and then submit them to the Secretary of Defense. The Secretary convenes a committee to review the documents and recommend changes to bring the service programs into conformance with the Nation's priorities. After being submitted to the President and Congress for approval, the budgets are administered by the services and agencies assigned to DOD.

But this process starts to break down at the very beginning because the military strategy contained in the *Defense Guidance* always demands greater force capabilities than the budget constraints will allow. Some administrations have attempted to limit the requirements by calling for the capability to fight "one and a half" or "two and a half" wars, while others have proposed preparing for global war almost without limits. In any case, the guidance almost invariably leads to what the Joint Chiefs have long called the "strategy-force mismatch" as requirements outpace capabilities.

Current guidance is so demanding that developing truly coherent programs to carry it out is impossible even under the most optimistic budget assumptions. There is simply not enough

money in the projected defense budgets to fulfill all stated requirements, but the *Defense Guidance* does little to set meaningful priorities or mandate a search for new directions to maintain our security. This is not a problem unique to this administration.

Since requirements exceed resources, the services invariably allocate resources among their traditional missions and seek ways to justify a greater share of the budget. But additional funds are likely to come only from another service's share, so each attempts to outgame the

others without sufficient regard for cross-service programs.

The vast array of service programs is then submitted to the defense committee. The name and composition of the committee may vary from administration to administration, but its function remains the same. Currently it is called the Defense Resources Board and is chaired by either the Secretary or Deputy Secretary and includes the service secretaries, Assistant Secretaries of Defense, and Chairman. The service chiefs attend as observers.

chiefs are judged by their services on their success in obtaining funding and on protecting service interests

Week after week, the board meets in an attempt to examine major issues, but the focus is primarily on service programs, which include many hundreds of items deemed essential by their advocates. The board fusses over marginal changes in programs, but it is literally impossible for it to address them in sufficient depth or to focus on the most critical cross-service issues.

The Joint Chiefs and Joint Staff are assigned a role in this process, but each service usually wants the Joint Staff merely to echo its views. Since

four of the five members of the Joint Chiefs of Staff are also service chiefs, a negotiated amalgam of service views almost invariably prevails when inputs are finally proposed by the Joint Staff. The Chairman is the only military member of the Defense Resources Board and can offer independent opinions, but he has only five people working directly for him to sift through the various issues. (The Joint Staff belongs to the JCS corporate body, not the Chairman.) Consequently, Chairmen traditionally focus on a few critical items. In my case, they were readiness, command and control, and mobility.

The result of this tedious process is a defense budget derived primarily from the disparate desires of the individual services rather than from a well-integrated plan based on a serious examination of alternatives by the civilian and military leadership working together. Inevitably, a Secretary of Defense either supports a total program that is roughly the sum of the service inputs (limited by fiscal guidance) or resorts to forcing changes, knowing that advocates of disapproved programs will continue the opposition into the congressional hearings.

But resource allocation by the board is only the beginning of the problem. The optimism expressed in program proposals seldom comes true. The chairman of the Defense Science Board, Norman Augustine, has written that over the last thirty years our major weapons systems have met performance goals 70 percent of the time (not bad) but have met schedules only 15 percent of the time and cost estimates only 10 percent of the time even after accounting for inflation.

As costs increase, programs are stretched out. Weapons are usually ordered in numbers well below efficient production rates, to the detriment of the "industrial base." This only leads to further cost increases, the cycle repeats itself, and we find ourselves trapped in a catch-22 situation. Tough decisions are not made, so the financial "bow wave" that always spills

ahead is magnified. Attempts to improve efficiency, such as the administration's multiyear procurement contracts, are very helpful but do not get to the fundamental problems of planning and resources.

The lack of discipline in the budget system prevents making the very tough choices of what to do and what not to do. Instead, strong constituencies in the Pentagon, Congress, and industry support individual programs, while the need for overall defense effectiveness and efficiency is not adequately addressed.

Pentagon leadership finds it virtually impossible to find the time necessary to impose discipline on the budget process. Cycles overlap and, as this year, we usually find Congress considering a last-minute multibillion-dollar supplemental appropriation at the end of one fiscal year and unable to agree on the budget before the start of the next fiscal year. At the same time, the Pentagon is struggling with the next five-year defense plan and the subsequent budget submission. This immerses the leadership constantly in confusing external struggles for public and congressional support and bewildering internal disputes over resources and turf.

The same pressures burden the service leaders as they attempt to cope with managing procurement programs, recruiting and training the forces, and maintaining discipline and esprit. Chiefs are judged by their peers and services on their success in obtaining funding for their own major systems and on protecting service interests in the three afternoons a week they spend in meetings of the Joint Chiefs. Furthermore, a service chief, who is a service advocate in one hat and supposedly an impartial judge of competing requirements in his other hat as a member of the Joint Chiefs, has a fundamental conflict of interest.

To sum up, our defense establishment suffers serious deficiencies, including the following:

- strategy is so all-encompassing as to mean all things to all men
- leaders are inevitably captives of the urgent, and long-range planning is too often neglected

- authority and responsibility are badly diffused
- rigorous examination of requirements and alternatives is not made
- discipline is lacking in the budget process
- tough decisions are avoided
- accountability for decisions or performance is woefully inadequate
- leadership, often inexperienced, is forced to spend too much time on refereeing an intramural scramble for resources
- a serious conflict of interest faces our senior military leaders
- the combat effectiveness of the fighting force—the end product—does not receive enough attention.

Before too much criticism is heaped on the current administration, let me point out that these problems have been with us for decades and there are no easy solutions.

What all this adds up to is that it is an uphill struggle for anyone—including a Secretary of Defense—to gain real control of our defense establishment. One study on defense organization stated that everyone was responsible for everything and no one was specifically responsible for anything. The top leadership is too often at the mercy of long-entrenched bureaucracies. It is ironic that the services have, with considerable help from outside constituencies, been able to defeat attempts to bring order out of chaos by arguing that a source of alternative military advice for the President and Secretary of Defense runs the risk of undermining civilian control.

There has for some time been an imbalance in the degree of control that our civilian leadership exercises over operational and other defense matters. In operational matters, it is pervasive. An order cannot go out of Washington to move a ship or other combat unit or to take any other specific operational action without the specific approval and initialing of the directive by the Secretary of Defense. At times, Secretaries and their staffs have been involved in the most minute details of operations.

In other areas, civilian influence is more often apparent than real. Secretaries of Defense are given very little comprehensive advice on alternative strategies or systems. In an attempt to fill the void, they have often turned to

civilian analysts for such advice. These consultants can provide a useful service, but they cannot make up for the absence of alternative advice from experienced, serving military officers. That the Joint Chiefs, a committee beholden to the interests of the services, has not been able to provide such advice during its existence is amply documented in scores of studies over many years.

Civilian accountability in DOD is undermined further by the rapid turnover or inexperience in the senior leadership. In the 35 years since it was founded, there have been 15 Secretaries of Defense, and there have been 19 Deputy Secretaries in the 33 years since the establishment of that position. A recent study revealed that civilian policymakers in DOD stay on the job an average of only 28 months.

Little of what I have said is new. Reams of paper have been used since World War II to describe these deficiencies. President Eisenhower, who knew both sides of the civilian-military equation well, tried to resolve the basic problem, but the effects of his efforts were limited. Others have also tried but with even less success. Bureaucratic resistance to change is enormous and is reinforced by many allies of the services—in Congress and elsewhere—who are bent on keeping the past enthroned. Civilian defense leaders have been reluctant to push hard for changes, either because they thought they could not succeed or because they did not want to expend the necessary political capital which they believed was better spent on gaining support for the defense budget. Many have feared that raising basic organizational issues might distract attention from the budget and give ammunition to opponents, who would use admissions of organizational inefficiency to argue for further budget cuts. Yet, since the public already believes that all is not right with DOD, bold reforms would not only increase our effectiveness but strengthen public support as well.

That the balance of influence within the defense establishment is oriented too much toward the individual services has been a constant theme of

many past studies of defense organization. A special study group of retired senior officers just this April found it necessary to report that “a certain amount of service independence is healthy and desirable, but the balance now favors the parochial interests of the services too much and the larger needs of the Nation’s defenses too little.”

It is commonly accepted that one result of this imbalance is a constant bickering among the services. This is not the case. On the contrary, interactions among the services usually result in “negotiated treaties” which minimize controversy by avoiding challenges to service interests. Such a “truce” has its good points, for it is counterproductive for the services to attack each other. But the lack of adequate questioning by military professionals results in gaps and unwarranted duplications in our defense capabilities. What is lacking is a counterbalancing system involving officers not so beholden to their services who can objec-

service chiefs almost always have had duty on service staffs but almost never on the Joint Staff

tively examine strategy, roles, missions, weapons systems, war planning, and other contentious issues to offset the influence of the individual services.

President Eisenhower tried to resolve this problem in 1958 by removing the services from the operational chain of command. In essence, two separate lines of authority were created under the Secretary of Defense: an operational line and an administrative line. The operational line runs from the President, through the Secretary of Defense, to the combat commands—those theater or functional commands headed by the Eisenhowers, the Nimitzes, the MacArthurs of the future. The Joint Chiefs are not directly in this line of command but do, through the Joint Staff, provide the Secretary oversight of the combat commands and pass his orders to them. The administrative line runs to the military departments responsible for recruiting, training, procurement, and a myriad of other tasks necessary to develop the forces assigned to the combat commands.

President Eisenhower intended that the operational side would assist the Secretary of Defense in developing strategy, operational plans and weapons, and force-level requirements based on needs of “truly unified commands.” The Joint Chiefs and Joint Staff were to be the *Secretary’s* military staff in this effort. The services would remain the providers of the forces needed by the combatant commands but would not determine *what* to provide or how those forces would be employed. But President Eisenhower did not achieve what he wanted. The scales of influence are still tipped too far in favor of the services and against the combat commanders.

Although the combat commanders now brief the Defense Resources Board and have every opportunity to communicate with the Secretary of Defense and chiefs, virtually their only power is that of persuasion. The services control most of the money and the personnel assignments and promotions of their people wherever assigned, including in the Office of the Secretary of Defense, Joint Staff, and unified command staffs. Officers who perform duty outside their own services generally do less well than those assigned to duty in their services, especially when it comes to promotion to general or admiral. The service chiefs almost always have had duty on service staffs in Washington but almost never on the Joint Staff. Few incentives exist for an officer assigned to joint duty to do more than punch his ticket and then get back into a service assignment. I cannot stress this point too strongly: He who controls dollars, promotions, and assignments controls the organization—and the services so control, especially with regard to personnel actions.

Yet it is very difficult to break out of the DOD organizational maze. Many have struggled vainly within the system to improve the balance between the operational and administrative lines. Solutions to some of the basic interservice problems are heralded every few years but to this date have not addressed the fundamental causes. To

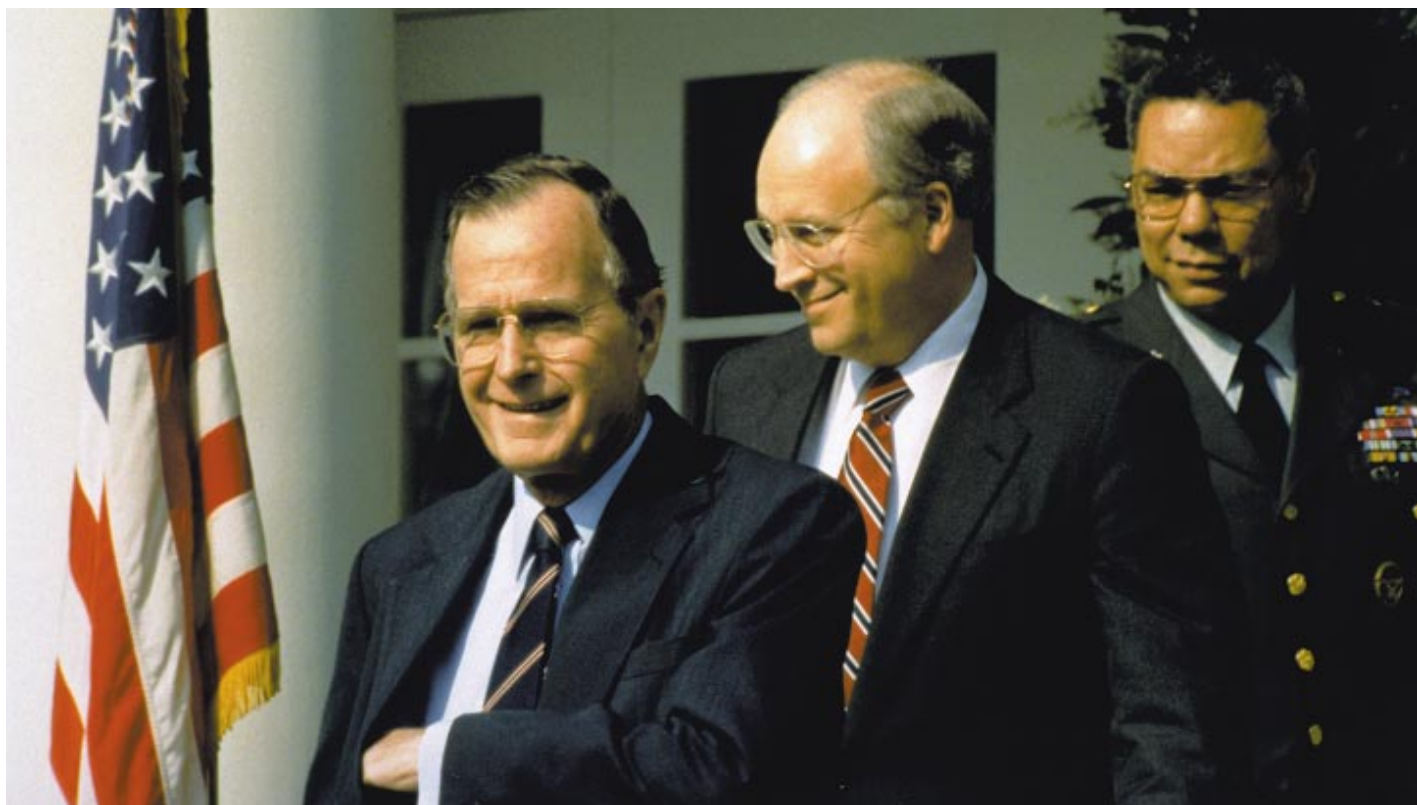
provide a balance, the services must share some of their authority, but they have proved to be consistently unwilling to do so. A service chief has a constituency which, if convinced that he is not fighting hard enough for what the service sees as its fair share of defense missions and resources, can destroy the chief’s effectiveness.

Only the Chairman is unconstrained by a service constituency, but he is in a particularly difficult position. His influence stems from his ability to persuade all his colleagues on the Joint Chiefs to agree on a course of action, and any disagreement requires a report to the Secretary by law. A Chairman jeopardizes his effectiveness if, early in his tour, he creates dissension within the corporate body by trying to force the services to share some of their authority.

Congressional action is needed on these organizational issues—the most important defense problem facing the Nation. Additional money is badly needed for defense, but without major realignment we will neither achieve the necessary capability nor spend the money as wisely as we should. The critical question is whether we will show the wisdom to do as the British did with their 1982 reorganization or muddle along as we have in the past until some crisis or disaster awakens us to the need for change.

JFQ

The original version of this article, entitled “What’s Wrong with Our Defence Establishment,” appeared in *The New York Times Magazine* on Sunday, November 7, 1982, pp. 38–39, 41–42, 70, 73–74, 76, 78–83, and is reprinted with the permission of the author.



The White House

The President, Secretary, and Chairman on February 11, 1991.

THE CHAIRMAN as Principal Military Adviser

JFQ *What is your appraisal of the overall impact of the Goldwater-Nichols Act?*

POWELL I believe the implementation of the Goldwater-Nichols Act has satisfied the intent of its author—Congress—which under article I, section 8 of the Constitution has the power to make regulations for the Armed Forces.

Congress wanted to make sure that the Joint Chiefs of Staff were providing

the President, Secretary of Defense, and other members of the National Security Council with good, clear, crisp, comprehensive military advice and recommendations. And they wanted to change a system whereby a committee—the Joint Chiefs—tended, they felt, to offer the least common denominator advice. Congress achieved this by making the Chairman the principal military adviser—charged to furnish direct military advice—but did not remove the responsibility of the other chiefs to provide it as well. During my tenure as Chairman, I gave my civilian

General Colin L. Powell, USA (Ret.), served as 12th Chairman of the Joint Chiefs of Staff and was the founding publisher of *Joint Force Quarterly*.

Moscow Summit,
May 1988.



The White House

as national security adviser I watched the Cold War starting to end

leaders my own professional advice, fully informed by the advice and counsel I received from my JCS colleagues. When one or more of the chiefs disagreed, I made sure the Secretary and the President were aware of any differences. This is what Congress intended.

Goldwater-Nichols also clarified the lines of command and communication between the President and Secretary and the combatant commanders. CINCs are subordinate to the Secretary—he is their boss, not the Chairman or the Joint Chiefs. The act authorized the Secretary to use the Chairman as his channel of communications to the combatant commanders.

The act was also intended to improve the professionalism of the officer corps in conducting joint operations. It has certainly done that. The

Joint Staff has been improved so dramatically that it is now, in my judgment, the premier military staff in the world. You can see a similar effect in the staffs of the combatant commanders. Just as important, jointness, or teamwork as I prefer to call it, has become imbedded in the culture of the Armed Forces.

JFQ *How has the Chairman's more influential role affected the balance of civilian and military authority?*

POWELL You have to remember that Goldwater-Nichols was intended to strengthen civilian control over the military by clarifying and reaffirming the role of the Secretary and his relationship with the Joint Chiefs and combatant commanders.

But to answer the question fully, you have to look beyond the legislation. The key is the relationship

between the Secretary and the chiefs, especially the Chairman. The Secretary is free to obtain advice from whomever he chooses, to include his own civilian policy staff. He is obliged to receive the advice of his military leaders; but he does not have to accept it if he finds he can get better advice elsewhere or if he doesn't find it responsive to his needs.

My experience with Secretary Dick Cheney for almost four years was that he fully understood his authority over the entire Department of Defense. He used me and the chiefs skillfully to get the military advice he needed. He also skillfully used his policy staff to get it from another perspective. He was then able to blend the two perspectives. I made sure that Secretary Cheney saw the Joint Staff as his staff as well as mine.

The frequent claim that the Secretary's civilian authority and influence were reduced by Goldwater-Nichols is simply nonsense. Mr. Cheney demonstrated on more than one occasion that he was up to the task of controlling the military. Obviously, he found the advice we provided useful and relevant. To



The White House
Situation Room.

The White House

suggest that somehow the Secretary is at the mercy of the Chairman and the other chiefs is wrong. The suggestion does a disservice not to the Chairman or the other chiefs but to the Secretary. The Secretary was very much in charge. And because he usually found the military advice he received useful and acted upon it, I believe the Joint Chiefs of Staff became a more influential body than it had been. To improve, to the Secretary's satisfaction, the quality of the military advice he received was what Goldwater-Nichols was all about.

The proof of the pudding is the string of successful military operations we have seen in recent years, from Panama through Desert Storm through Bosnia. The problems encountered in Grenada or Desert One, which gave such impetus to Congress to reform the process, have been largely overcome. We are not perfect, but the performance of the Armed Forces in joint operations has improved significantly and Goldwater-Nichols deserves a great deal of the credit.

JFQ *Why has this new role of the Chairman drawn such fire from critics?*

POWELL Some critics suggest that the Chairmen, especially me, did something wrong in implementing the act in the manner intended by Congress. I tried to take the act to its fullest limit. If I understand my obligation, I was supposed to faithfully discharge the law.

Many critics didn't like the law in the first place. They fought it before it was passed and are still fighting it. These critics sometimes forget that Congress enacted Goldwater-Nichols because they were deeply dissatisfied with the system of old that the critics long for. I am sure there was frustration among service staffs because the Chairman could move forward on his own. The opportunities for logrolling and frustrating progress for parochial interests were severely curtailed. We no longer had to "vote" on issues to determine what advice the chiefs were going to provide to the Secretary.

Interestingly, the chiefs seemed to have less of a problem with the role of the Chairman than their staffs and the

critics. In my four years as Chairman, I worked with five different sets of chiefs. I believe they felt they were fully included in the formulation of advice. In fact the Chairman relieved them of a lot of housekeeping issues and permitted them to spend more time and energy on organizing, equipping, and training their forces, which is their principal role.

Congress and the American people have had ample opportunity over the past ten years to see how the Armed Forces are working and they are pleased. Goldwater-Nichols has been a success notwithstanding its critics.

JFQ *What is the nature of the relationship between the Secretary of Defense and Chairman under Goldwater-Nichols?*

POWELL The Chairman was given no authority under the act. He was given a role—to serve as the principal military adviser. He commands nothing. What the Chairman ultimately possesses is influence, not authority,

and only that influence which the Secretary gives him. It cannot be taken from the Secretary—he must give it to the Chairman. The Secretary does that when he believes the Chairman is someone who can get the best military advice available out of the system, someone in whom he has confidence and trust. That's ultimately what makes the whole system work. It is a system designed by Goldwater-Nichols but one executed by human beings who have confidence in each other.

And at the top of that DOD pyramid is the Secretary of Defense. There's no doubt in my mind—at least in the case of the two Secretaries I worked for, Dick Cheney and Les Aspin—that they were in charge.

JFQ *How did your experiences in senior positions in Washington help you as the first officer to serve his entire tour as Chairman under Goldwater-Nichols?*

POWELL I came to the job with a rather unique background. I had been national security adviser, deputy national security adviser, and military assistant to three deputy secretaries and one Secretary of Defense, which gave me a window on the workings of the entire Joint Staff and the Chairman's relationship to the Secretary prior to the enactment of Goldwater-Nichols. As national security adviser I also watched the Cold War starting to end. I had also commanded all operational Army forces in the United States and knew what was happening in the field. As CINC, Forces Command, I was a force provider to the overseas combatant commands. That gave me great insight into their regional warfighting plans and needs.

That experience was also enhanced by the fact that I had both personal and professional relationships with the senior members of President Bush's national security team. I was national security adviser when he was Vice President and I lived next door to him for two years in the Reagan White House. During that same period Congressman Dick Cheney was the minority whip and Jim Baker was Secretary of Treasury. So these established relationships gave me the entree that I needed to fully implement Goldwater-Nichols.

JFQ *Why under your leadership did the Joint Chiefs often meet informally?*

POWELL When former Chairman General Dave Jones and Army Chief of Staff General Shy Meyer began the debate that eventually led to Goldwater-Nichols, one of Shy Meyer's ideas was to have two groups of four stars—the service chiefs and another council of four stars detached from their service responsibilities—to serve as the real Joint Chiefs. I didn't think that was the way to go. But the idea had merit because it is hard for any service chief who has to fight for his service's interest to put that interest aside easily in discharging his role as a member of the Joint Chiefs. This is particularly the case in well-attended formal meetings where the chiefs arrive with formal service-prepared positions to defend and with their institutions watching.

So I used a combination of formal and informal meetings. We had lots of formal "tank" meetings as a group and often with the Secretary of Defense in attendance. But to use Shy Meyer's idea, I had many, many more informal meetings, just the six of us sitting around a table in my office without aides, staff, or notetakers. This was not great for history, but it was a superb way of getting the unvarnished, gloves-off, no-holds-barred personal views of the chiefs. They never shrank from defending their service views, but it was easier for them to get beyond those views when we were no longer a spectator sport. It was also easier to protect the privacy of our deliberations. We occasionally had a donnybrook but almost always came to agreement on the advice that I took forward to the Secretary. On occasion, the Secretary would join us at the little round table in my office. I am sure the service staffs were often unhappy because they didn't have their chiefs loaded with positions and wouldn't always get a complete readout.

It was a technique I found useful. Other Chairmen might choose to do it differently. I wouldn't be surprised if we met more times formally and informally than any previous sets of chiefs.

I knew my approach was controversial and kept waiting to see if I had to adjust it. But I never had a single chief say, "We need to hold more formal meetings."

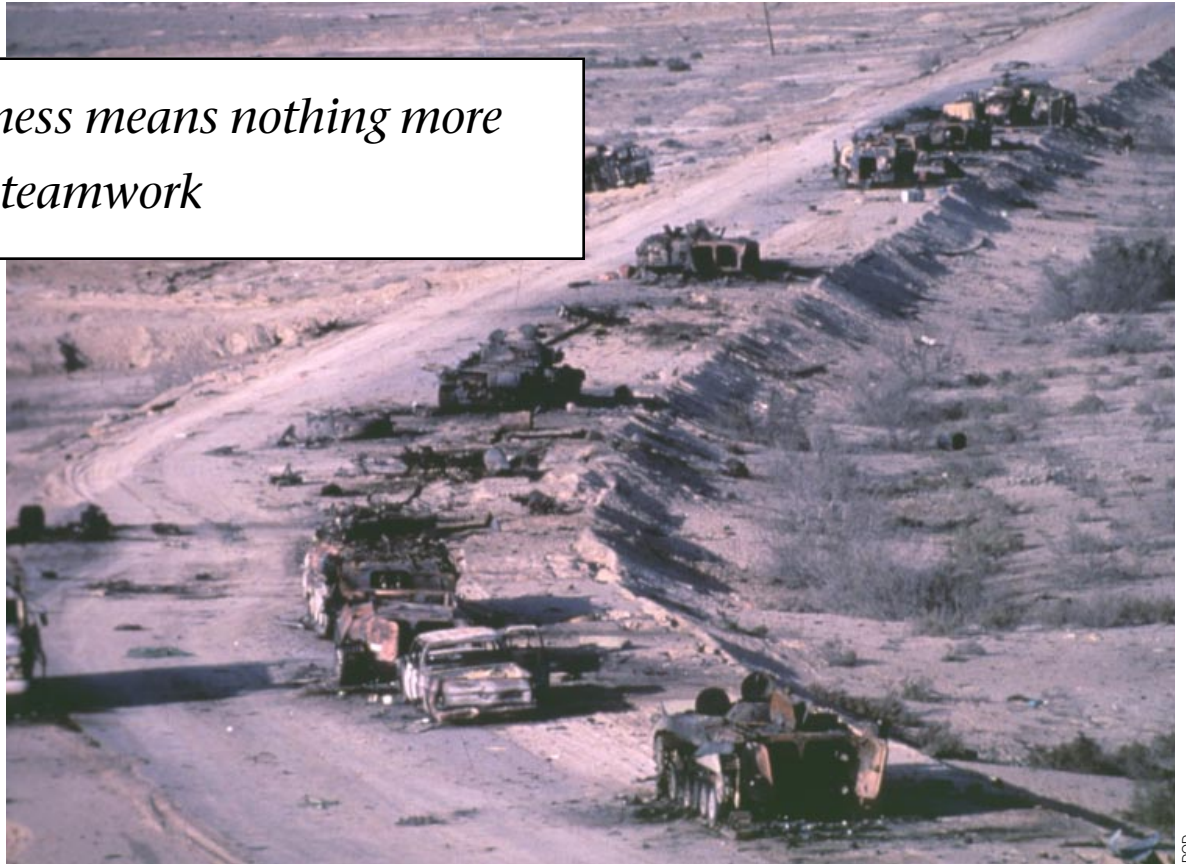
I might add that the secure direct hotline telephone and intercom systems we installed among the chiefs and with the combatant commanders permitted an even more informal means of consulting. We were constantly in touch and generally spoke with one voice once agreement was reached on a given issue.

JFQ *What impact did the Goldwater-Nichols Act have on the conduct of military operations?*

POWELL The invasion and liberation of Panama in December 1989 was the first full test of Goldwater-Nichols in a combat situation, although there was a partial test under Admiral Crowe during operations against the Iranian navy in the Persian Gulf in 1988. You might even say that Panama was something of a shakedown cruise for what we would be doing in Desert Shield and Desert Storm a year later.

General Max Thurman, CINC-SOUTH, and one of the greatest soldiers I've ever known, created a joint task force to design the contingency plan. The plan was reviewed in Washington but not second-guessed by the Joint Staff and Joint Chiefs. It had been briefed to the Secretary. When soldiers of the Panamanian Defense Force killed an American Marine officer, we were ready and able to move quickly. I assembled the chiefs, we reviewed the situation and plan, and provided our recommendation to intervene. Dick Cheney agreed and we made that recommendation to the President after thoroughly briefing him on the plan. On the night of the operation and in the days that followed, General Thurman was given maximum flexibility to use the forces we provided him. He reported directly to the Secretary through me. Secretary Cheney knew every aspect of the plan intimately but did not insert himself into every tactical decision. I dealt with Thurman, and the Secretary watched and listened and kept the President fully informed. When we

jointness means nothing more than teamwork



Remnants of retreating Iraqi forces.

needed additional political guidance, the Secretary rapidly got it from the President. There were glitches, of course. There always are. But the model was set: we had clear political guidance, there was a solid and well-integrated plan, the CINC was in charge, and there was appropriate oversight from the Joint Chiefs and National Command Authorities. It was the model we used, scaled-up, for Desert Shield and Desert Storm and it is the model that is still in use and working very well.

JFQ *How would you assess the level of jointness during Desert Storm?*

POWELL I would assess it as excellent. It wasn't perfect. We identified improvements we had to make such as enhancing the integration of the air assets available to a CINC. We worked very hard after Desert Storm to improve our joint doctrine. Jointness means nothing more than teamwork. We have lots of star players within our Armed

Forces. The trick is always to put the right stars together on a team to accomplish the team mission without arguing about who gets the game ball.

JFQ *How has the ACOM role as joint force integrator progressed in your view?*

POWELL It took us three years of debate to create the ACOM concept. We recognized that with our drawdowns around the world there would be a greater need to have jointly trained forces immediately available to deploy overseas to be used by theater commanders. Theater commanders trained their forces jointly, but we weren't doing that well enough back in CONUS. Each service trained its own forces, with only large, annual showcase exercises to train a joint force. We had to make joint training the rule and ACOM was created, in my mind, for that purpose. It was a force trainer and provider. In Haiti, it also demonstrated it could run

an operation and it did it very well. We had to break a lot of bureaucratic bowls to create ACOM. We knew that it would have to evolve over time and that evolution is still going on.

We used the old Atlantic Command as the base for ACOM because with the end of the need to defend the sea lanes against the Soviet navy, Atlantic Command was a headquarters with the capacity to accept a new mission. Its location in Norfolk placed it near TRADOC, Langley, the Armed Forces Staff College, the Pentagon, Quantico, and other installations that have a role in training, doctrine, contingency planning, and education. At the time, we also left it with mission responsibility for the Caribbean so it would be a real warfighting headquarters and not just a think tank. It also retained NATO responsibilities.

ACOM finally came into being the week I retired. It was my last act going out the door. Others will have to make



Courtesy of Special Collections, NDU Library

In the field.

the definitive judgment of how well it is doing now.

JFQ *How were a new national military strategy and the Base Force concept developed?*

POWELL During the first year of the Bush administration, it was clear that the Cold War was coming to an end. We were really going to lose our “best enemy.” For four decades we had a strategy, force structure, infrastructure, research and development, and investment policy that rested on the need to be ready to fight World War III. If that was going away, then what should we be ready for?


Obviously, we had vital interests in the Persian Gulf and Northeast Asia. We still needed our nuclear deterrent, and we still had force presence responsibilities around the world. And there would still be the need to fight the conflict that no one predicted or planned for. The two most demanding contingencies were the Persian Gulf and Northeast Asia. We considered these major regional contingencies. Since they were

no longer linked in the sense that they were part of a worldwide Soviet threat, they could be looked at separately. We needed sufficient forces to fight each of them. It was unlikely they would break out at the same time. But we didn’t want our force structure to be so thin that if we were executing one an adversary could take advantage of our weakness and start trouble in the other. The simple sizing formula was to be able to fight two major regional contingencies nearly simultaneously. We wanted the second aggressor to know that we had enough force to deal with him even though it could take a little time to get there.

The Base Force was designed to execute the new strategy. The term “base” was used to denote that we felt it was a floor below which we should not go given the world situation we saw when this was all being designed in 1990. There was quite a bureaucratic battle over what that base should be for each service, and it took some time to get everyone on board.

Both the strategy and the Base Force levels were severely criticized then and now. But they gave us something to plan on and to present to Congress, the American people, our allies, our potential enemies, and our troops as a vision for the future during a time of historic transformation. It served that purpose exceptionally well and gave us the basis to downsize our forces in an orderly way. We were determined not to be pulled apart for want of a rational strategy.

Some critics now say that strategy and force structure have outlived their usefulness. I don’t think so. The strategy won’t last forty years as did the Cold War strategy of “containment.” But until North Korea follows the Soviet Empire into political oblivion and/or the Persian Gulf becomes a region of democracy and stability, we must still be able to respond to two MRCs. The Base Force and its successor, the somewhat smaller Bottom-Up Review force, have also ensured that we had the forces needed to deal with all the contingencies that have come



With the fleet aboard
USS Wisconsin.
U.S. Navy (Scott Allen)

*we have lots of star players
within our Armed Forces*

along in recent years. Lots of alternative ideas are floating around, but I haven't seen one yet that does the job better.

The roles and missions debate was seen as another way of rationalizing and downsizing the force. I conducted a roles and missions study as required by Congress and pretty much validated the existing roles and missions for our services. Some members of Congress didn't like the results because they weren't revolutionary enough and



Courtesy of Special Collections, NDU Library

were some disagreements. In particular, General Al Gray, Marine Corps commandant, argued strongly that the planned strength level for the Marine Corps was set too low, even though the Secretary of the Navy supported that level. Secretary Cheney knew of the disagreement and made a decision. But I was not constrained in providing my recommendation while I tried to achieve total consensus or put it to the "yeas" or "nays." And by the way, Secretary Aspin subsequently raised the



Courtesy of Special Collections, NDU Library

especially because they didn't point the way to even greater reductions and savings. Congress established a roles and missions commission which after a year's worth of work came basically to the same conclusion I had, although they presented some recommendations for changes in process.

JFQ *To what extent did Goldwater-Nichols empower the development of this new strategy and the Base Force?*

POWELL It gave me more freedom and flexibility to come up with ideas and move them through the system because I was able to speak in my own right and not wait for a vote of the Joint Chiefs. As it worked out, all the chiefs agreed with the strategy and the overall force structure, although there

planned strength level of the Marines during the Bottom-Up Review.

Much credit for the strategy and force structure we came up with has to go to the Secretary's civilian policy staff. Under Secretary Paul Wolfowitz and his staff did their own analysis as they developed the Defense Guidance. Dick Cheney had a civilian policy check on what I, the chiefs, and the Joint Staff were proposing. We all got along well. It was a healthy relationship which served the Secretary's needs.

We were also able to simplify the joint planning process. We cut through a lot of the paper encrustation which had been the hallmark of the old JCS system.

JFQ *How were you able to recruit talented senior officers to the Joint Staff?*

POWELL Goldwater-Nichols helped enormously. Since joint duty credit was now needed for advancement, we became a sought-after staff. The Joint Staff was seen as a prime assignment. I also believe that it became a more exciting place to work. Panama, the Persian Gulf, new strategy, and the Base Force all served to make the Joint Staff more attractive as a cutting-edge operation. The service chiefs were very forthcoming in nominating their most able officers. We also changed the rotational process for senior staff assignments. It was no longer the "Army's turn" to get the J-3 position, etc. Or worse, to have to fill a position they didn't want to fill! Now the best person gets the job. The law required me to maintain service balance and I was able to do that without a service rotation scheme.

I was also able to get legislation from Congress that gave us billets for the three-star jobs on the Joint Staff. So now, when I asked the chiefs to nominate for one of those jobs, they didn't also have to give up one of their three-star billets. This made the jobs even more attractive and spurred competition.

JFQ *Finally, how well have the new joint officer personnel policies worked?*

POWELL From my perspective as Chairman, they worked very well. More officers than ever before are being trained in team warfare. More officers than ever have team warfare experience. This is good for the Nation and good for the Armed Forces.

I know that the policies have been very difficult for the services to manage, but they have paid off. **JFQ**

This interview was conducted on June 24, 1996 in Alexandria, Virginia.

Overseeing **CROSS-SERVICE** Trade Offs

By WILLIAM A. OWENS *and* JAMES R. BLAKER

One of the most consequential aspects of the Goldwater-Nichols Act directed the Chairman to advise the Secretary of Defense on requirements, programs, and budgets. More than any other provision of the act, this change constituted the legal basis for the Chairman to become a key player in designing, sizing, and structuring the Armed Forces.

Today the Joint Requirements Oversight Council (JROC) has become the chief mechanism through which the Chairman prepares his advice, and the process works well; so well, in fact, that it represents the first major revision of the planning, programming, and budgeting system (PPBS) since Secretary Robert McNamara put it in place more than three decades ago. This new process has threatened old ways of doing business and thus has generated no little controversy.

Early Growth

In 1984, JCS created the predecessor to JROC—the Joint Requirements and Management Board—to monitor and advise the Joint Chiefs on the development and acquisition of big-ticket items. The vice chiefs and director of the Joint Staff were named members,

with the chairmanship rotating among the vice chiefs annually. Four months before Goldwater-Nichols became law, the Joint Chiefs redesignated the board as the Joint Requirements Oversight Council. In April 1987, the Vice Chairman—a post created by the act—became the JROC chairman.

The council's ten-year history is one of expanding authority. The original body functioned essentially as an information clearing house, apprising members of individual service interests in large-scale acquisitions. After its name change and appointment of the Vice Chairman to head it, the JROC function shifted to validating the various proposals for major acquisition programs prior to the formal acquisition decision process. This shift, based on the Chairman's enhanced authority as principal adviser to the Secretary on

requirements under Goldwater-Nichols, made JROC much more influential. If the Chairman relied

upon it to frame advice, the council could not only defer or prevent acquisition but also exercise a central role in applying a joint perspective across the breadth of the entire defense program and budget.

Things initially moved in this direction, but JROC did not fully assume that role at once. The first Vice Chairman, General Bob Herres, established the authority of JROC chairmen to both set the agenda and validate potential requirements once the full council had considered them.

Admiral David Jeremiah, who succeeded Herres in 1990, maintained the authority carved out by his predecessor while shifting the focus of JROC from simply screening requests which had originated elsewhere toward greater initiative in defining the military systems that the Nation ought to acquire. This more active role was largely driven by the end of the Cold War which, however much the world benefitted, left DOD without an underlying consensus on its central role which had kept the planning process together for nearly four decades. Jeremiah did not have a detailed set of planning replacements in mind when, in 1993, he argued that JROC should become a proponent of advanced technology systems. But by maintaining that it should do more than react to ideas placed before it for review, he laid the foundation for a council that could lead defense planning.

Admiral William A. Owens, USN (Ret.), was the 3rd Vice Chairman, Joint Chiefs of Staff, and James R. Blaker is currently a visiting fellow in the Institute for National Strategic Studies at the National Defense University.

A New Process

A notable expansion of functions began as General John Shalikashvili encouraged JROC to build a better joint perspective and senior military consensus across a range of issues, seize greater initiative in defining joint requirements, and extend the council's influence to defense planning and programming processes. In response, the number of JROC meetings quadrupled. Within a month council members were spending ten times more hours in discussions than before 1994. The JROC process initiated an unprece-

USS Seawolf
undergoing sea trails,
July 1996.



General Dynamics

General Shalikashvili encouraged JROC to seize greater initiative in defining joint requirements

dent series of day-long offsite exchanges among the Joint Chiefs, CINCs, and the council. The Joint Staff established JROC liaison offices with unified command staffs, and the council itself regularly visited the CINCs.

Meanwhile, the Vice Chairman introduced a new analytical device known as joint warfare capabilities assessments (JWCAs). The JROC Chairman established JWCAs to serve as innovation engines. To help them meet this charge, their purview covered nine (later ten) cross-cutting warfare areas. Each JWCA—chaired by the head of a Joint Staff directorate (J-1, J-2, J-3, J-4, J-5, J-6, or J-8) but with broad participation from service and OSD staffs—was asked for new, analytically based insights designed to stimulate and inform discussions among the four-star JROC members as they, not their staffs, moved toward specific recommendations on joint military requirements. JWCAs were not asked for consensus recommendations hammered out through normal staffing procedures. JROC suggestions and views, in turn, provided the basis for the specific program recommendations the JCS Chairman used within the central process that sets the size and structure of the U.S. military: the planning, programming, and budgeting system (PPBS).

Loading MLRS on board C-17.



U.S. Air Force (Ken Hackman)



General Dynamics

Flight testing YF-22
prototype.

U.S. Air Force

The primary channels to PPBS involved emphasis on and a major revision of a document known as the *Chairman's Program Assessment* (CPA) and the creation of the *Chairman's Program Recommendations* (CPR). The Chairman, Admiral William Crowe, transmitted the initial CPA in 1987 to comply with his responsibility under the Goldwater-Nichols Act to advise the Secretary on the prioritization of requirements. While CPAs were subsequently forwarded each year, most of them simply acknowledged and endorsed the individual programs submitted by the services.

That kind of rubber-stamping ended in 1994. CPAs submitted by the present Chairman to the Secretary in both 1994 and 1995, based largely on JROC work, differed from—and in some respects actually challenged—the programs submitted by the services. These two CPAs, the first to emerge from the new JROC process, also took on the programmatic wishes of defense agencies and staffs in the Office of the Secretary of Defense. They highlighted where the Chairman believed some programs championed by these advocates failed the needs test.

The CPA, forwarded to the Secretary in October 1995 for example, called for shifting significant sums among programs, recommended the end of specific redundancies, and detailed proposals for changing DOD budget strategies dealing with recap-

both PPBS and JROC sought to build a process that could adjust interests of the services and DOD components

talization and the revolution in military affairs. The net impact of these recommendations, if implemented by the Secretary, would result in nearly a 12 percent adjustment in the projected budget over the planning period with no added funding. In short, the 1995 CPA represented an important benchmark. It was a major juncture in the road leading to resolving resource competition—which heretofore involved simply requesting more money—and

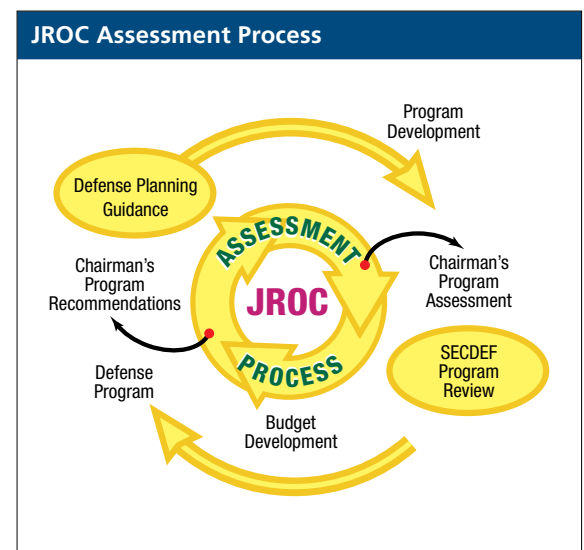
signaled that the Chairman had thoroughly assumed the authority granted him under the Goldwater-Nichols Act and was willing to use it in a way that would make a difference. The *Chairman's Program Assessment* suddenly had teeth.

The *Chairman's Program Recommendations*, or CPR, is best understood as a complement to CPAs. Compiled before the Secretary issues *Defense Planning Guidance*, CPR communicates recommendations from the Chairman to the Secretary on what should be included in the planning guidance to services and defense agencies. The Secretary may incorporate CPR into his guidance, or he can ignore any or all of it. But because the services also receive CPR—as a courtesy, but not for coordination—they know what the Chairman will consider in assessing their programs later during the programming cycle. It provides an early indication of what will be raised as alternative program recommendations when given issues are not adequately addressed in service programs.

The accompanying figure illustrates the relationship of CPA, CPR, and the mainstream of PPBS. Seen in this context, the JROC system seems to be a major revision of PPBS, which dates from the early 1960s, and it is. Both PPBS and the JROC system sprang from the same interests. Both sought to build a decision

and resource allocation process that could adjust the interests of the services and other DOD components to produce a better overall capability. Both were designed to make rational cross-service resource allocations and to build overall capabilities that amounted to more than the sum of individual service core competencies. Yet the original PPBS and new JROC process are based on very different assumptions.

One reason McNamara devised PPBS arose from the structure and nature of the interaction among the chiefs as it had evolved by the early 1960s. JCS



members formally enjoyed equal rank, status, and decision power—each had an effective veto over what the body could say collectively—and tended to deal with resource allocation additively. That is, as a committee of equals, their answer to the difficult question of “how much is enough?” was usually decided by summing each service chief’s postulated requirements. This meant very large defense budgets, and the way the Joint Chiefs tried to cope with resource constraints—first by funding what each service saw as its core competency and then by allocating remaining funds to functions or capabilities that were important to other services—had undesirable results. Among them, it led to gaps in those capabilities which tied the services together to achieve greater jointness. To McNamara, the marginal adjustments needed for better joint output depended ultimately on pressures from outside the military. He designed PPBS for this purpose and armed his office with the authority, staffs, procedural prerogatives, and analytic capability and support to allow the Secretary to bring external pressure to bear on the military departments. In the broadest sense, PPBS initially shifted resource allocation authority to the Secretary. McNamara’s guidance to the services set priorities for programming, the program review judged how well they were realized by the services and addressed

alternatives prepared for the Secretary by his staff, and the budget review confirmed that his decisions were funded. PPBS and the staff assembled to help the Secretary operate it enabled him to execute formal responsibilities much more fully and completely to assure the best allocation of defense resources.

But PPBS did not automatically bring the civilian and military authorities into a closely knit team, nor did it change the way the Joint Chiefs interacted.

Long Gestation

Goldwater-Nichols sought to revise this process. By making the Chairman the principal adviser to the Secretary on military requirements, the law

to achieve cross-service trade offs means developing ways to surmount bureaucratic stovepipes

gave him new authority to initiate force planning, assess programs, and—via direct advice to the Secretary—present alternative programs, challenge unnecessary redundancies, adjust service programs, and establish resource allocations in the DOD budget. Yet, while authority to do these things existed after the act was signed into law, it was nearly eight years before it was possible to exercise that authority in significant ways.

Why so long? While numerous factors contributed to the delay, one of the most important is found in the original PPBS assumption about the difficulty of getting individual service chiefs to regard resource allocations as something other than a zero-sum game. The Secretary's authority to set resource allocations is unambiguous; however the line of authority between the Chairman under Goldwater-Nichols and the military departments under title 10 to identify requirements is not clear. This outstanding ambiguity required a new mechanism to reconcile competing authorities, one built to implement a very different assumption from that of the original PPBS. That is, a way had to be devised for senior military leaders to function as a corporate body to find cross-service solutions to the difficult question of

what really was required, in addition to their natural roles as advocates for a single service. This was not easy.

The new JROC is such a mechanism. But it is unlike other staff arrangements that prevail inside the Pentagon. It assumes that the military can shift funds from one service to another within the context of a non-zero sum game. But it acknowledges that this approach requires having the right people address the right issues for the right period of time. For the military, the right people are found at the four-star level, and to enable them to cooperatively discuss the right issues for the right amount of time often means that they must spend less time with their staffs. And providing them with support needed to achieve cross-service trade offs means developing ways to surmount the bureaucratic stovepipes that characterize most interservice staff undertakings. Because of these differences, the JROC system was not built quickly and remains controversial.

The changes manifest in JROC have stirred two particular concerns. The first is whether the process undercut the statutory authority of the military departments to raise, train, and maintain forces. The second is whether JROC and its active support of the Chairman in the programming and budgeting system duplicates functions assigned to DOD civilian offices.

The first concern, sometimes stated in hyperbole about an ascendant general staff, is not warranted. Service programs continue to reach the Secretary who listens to them carefully. What is more, the Chairman is legally bound to offer an assessment of programs and recommendations on military requirements. JROC affords a mechanism for helping service leaders understand joint requirements and a senior forum in which services can clarify their priorities. These contributions ought to alleviate any lingering concern that JROC represents a move toward a general staff.

The second concern implies two questions. First, can the military itself make better cross-service resource allocations than nonmilitary groups? And second, is there something wrong with a system in which both JROC and the Secretary's civilian staffs recommend such allocations?

Optimal cross-service resource allocations are most likely to result from various factors. Warfighting ought to figure most prominently. But there are other aspects of resource allocation—such as political and social effects of deciding who gets what—to be addressed, particularly when allocations involve hundreds of billions of dollars. Even though the Secretary ought to turn to the Chairman, supported by JROC, for recommendations on shaping military capabilities, nonmilitary experts may be better qualified to address the other implications.

The problem is maintaining the proper balance. This is particularly challenging today when the old consensus on the military threat has been replaced by a seemingly more complicated set of national security interests. It is not made easier by different organizational trends that characterize the defense establishment. One can argue, for example, that while the military has moved toward greater integration—largely because of Goldwater-Nichols—the civilian side of the Pentagon has been moving toward greater fragmentation and factionalization, as the number of “special interest” offices increases. A more coherent, integrated warfighting perspective, partly prompted by JROC, can be a healthy development as defense resource allocation perspectives become more diverse.

Thus, the question is not whether civilian or military officials make the best decisions on allocating resources. Rather it is whether the JROC process encourages the balance in civilian and military perspectives demanded under our system. At this point, the answer seems to be yes. This is likely to gratify the authors of the Goldwater-Nichols Act. They set out to improve the quality of military advice, and JROC has become an important mechanism in achieving that objective.

JFQ

Next Steps in Joint Force Integration

By JOHN J. SHEEHAN



Navy crewman guiding
UH-60 Blackhawk.

U.S. Navy (Robert N. Scoggin)

The nature of modern warfare demands that we fight as a joint team. This was important yesterday, it is essential today, and it will be even more imperative tomorrow.

—John M. Shalikashvili

General John J. Sheehan, USMC, is commander in chief, U.S. Atlantic Command, and Supreme Allied Commander Atlantic. Previously he was director for operations (J-3), Joint Staff.

The battlefields of the next century will little resemble those of today. At the upper end of the conflict spectrum, long-range and highly lethal precision-guided munitions—launched from an assortment of ground, naval, and air platforms and guided by a complex web of command and surveillance as-
sets—will continue to blur the lines separating land, sea, and air warfare. Feedback will be immediate—not just from battle

damage assessments conducted by joint force commanders (JFCs) but from anyone on or near the scene with access to commercial satellite communication technology. Graphic reports and imagery from the battlefield by journalists, relief workers, and other noncombatants will quickly sway public opinion. Concern over casualties, collateral damage, and fratricide will pressure political decisionmakers and military leaders to end kinetic conflicts as rapidly and decisively as possible.

Victory will depend on the ability of JFCs to master the “system of systems” composed of multiservice hard and soft-kill capabilities linked by advanced information technologies. A JFC orchestrating a battle must rapidly process and disseminate information to his forces and deny an enemy sanctuaries of time and space. In sum, joint forces will have to be thoroughly integrated to fully exploit the synergism of land, sea, and air combat capabilities.

Evolution of Joint Warfare

Although joint warfare is as old as our Republic (witness the battle of Yorktown), joint force integration (JFI)

since 1990 efforts have evolved from “specialized” to slightly less than “synergistic” joint warfare

is a relatively new phenomenon. After a series of operational failures in the 1970s and 1980s, Congress passed the Goldwater-Nichols Act to integrate individual service capabilities into a more efficient joint team. This law has contributed to a number of joint operational successes, including Panama (1989), Kuwait and Iraq (1991), and Haiti (1994).

Notwithstanding the great improvement in joint operations over the last decade, challenges confronting the Department of Defense today require a greater integration of service capabilities. An increasing number of technological and organizational challenges to warfighting, together with shrinking DOD resources, have forced a rethinking of national security and military strategies.

During the Cold War, the United States and its allies established large standing armies with redundant capabilities to counter the Soviet threat. Today forces built on mass alone are becoming both less necessary and too expensive to field and maintain. As a result, in an era in which precision weapons make massive forces lucrative targets, the effectiveness of joint operations will depend more on integrating service maneuver and precision strike capabilities than on marshalling large service components.

Since 1990 the efforts of the Armed Forces have evolved from “specialized” to slightly less than “synergistic” joint warfare. Operation Desert Storm represents specialized joint warfare in that the coalition employed an impressive array of multinational, multiservice, multidimensional, and multifunctional forces with the common objective of ousting Iraq from Kuwait. The United States and its allies had the luxury of powerful, massed, deeply redundant, separate services fighting in the same battlespace. Service capabilities were deconflicted rather than integrated.

Although specialized joint operations in the Persian Gulf clearly improved on multiservice operations prior to Goldwater-Nichols, the United States can no longer afford the inefficiencies of a system that brings redundant forces together for the first time on the battlefield.

Joint operations since Desert Storm, such as Restore Hope in Somalia, Uphold Democracy in Haiti, and Joint Endeavor in

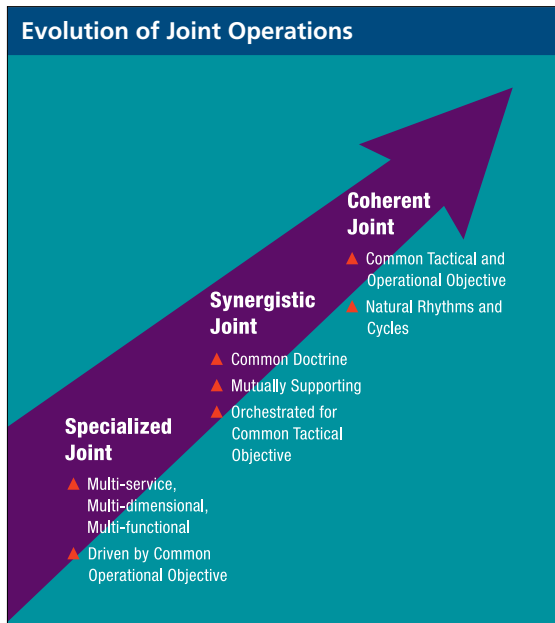


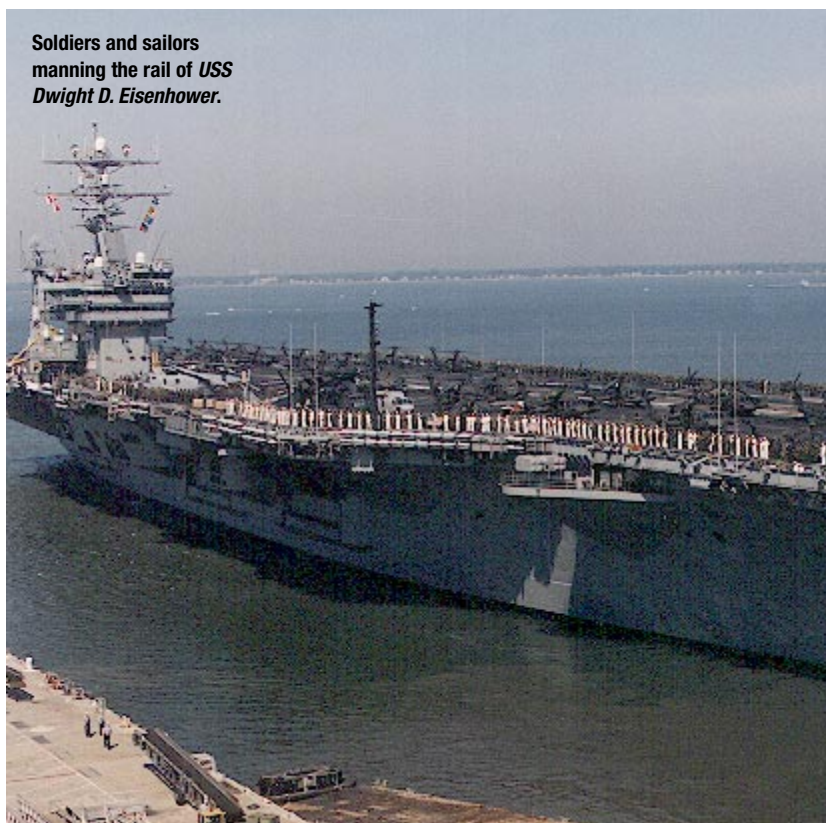
U.S. Air Force (Dean Wagner)

Bosnia, approach the level of synergistic joint operations. Synergistic joint operations are mutually supporting in that JFCs orchestrate separate service capabilities for common tactical objectives. Yet the lack of common joint doctrine has so far prevented the Armed Forces from reaching the synergistic joint level.

To achieve *Joint Vision 2010*—the Chairman’s conceptual template for how the military will channel resources and leverage technology for greater joint effectiveness—we must be able to conduct coherent joint operations. JFCs must be able to integrate service capabilities to achieve common tactical and operational objectives. These integrated joint forces must accommodate the natural battle rhythms and cycles of land, sea, and air warfare.

At the current rate of progress, the U.S. military should achieve coherent joint operations in five to seven years. By the early 21st century the Nation will have a joint integrated force that can fully exploit the goals of *JV 2010*: dominant maneuver, precision engagement, full-dimensional protection, and focused logistics.





Soldiers and sailors manning the rail of USS Dwight D. Eisenhower.



10th Mountain Division embarking during Uphold Democracy.

U.S. Navy (Robert N. Scoggin)

U.S. Navy (Steve Enfield)

The ACOM Role in JFI

The time has come to merge these [CONUS-based forces] into a combatant command whose principal purpose will be to ensure the joint training and joint readiness of our response forces.

—Colin L. Powell

The need for U.S. Atlantic Command (ACOM) surfaced in the February 1993 *Report on the Roles, Missions, and Functions of the Armed Forces of the United States* prepared by the then Chairman, General Colin L. Powell. Faced with fewer forward-based forces and recognizing the need to facilitate JFI evolution, Powell recommended to the President and Secretary of Defense that ACOM be established. ACOM assumed its new responsibilities as joint force integrator, trainer, and provider of the majority of the Nation's combat forces in the 1993 revision of the unified command plan.

As a natural extension of the congressional intent to enhance jointness, the establishment of ACOM became another milestone in DOD implementation of Goldwater-Nichols.

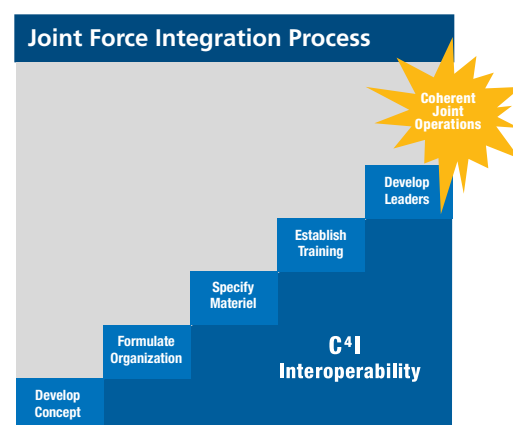
As principal advocate of JFI and joint training, ACOM maximizes the unique capabilities of its service components (Forces Command, Atlantic Fleet, Marine Forces Atlantic, and Air Combat Command) by melding their combat elements into coherent joint warfighting teams prior to deployment.

Joint Force Integration

The process of ensuring interoperability and efficient use of the total force takes place under the rubric of JFI. Four principles are used in achieving integration and coherent joint operations:

- future orientation—leveraging technological advances
- full interoperability—enabling all joint and service systems to operate effectively together
- functionality across the conflict spectrum—providing a working capability to warfighters
- enhanced competitive advantage—providing a significant edge over any adversary.

JFI also provides the intellectual framework and vision to exploit competitive advantages in weapon, sensor,



and information technologies. Interoperable technology will not assure success in itself. Our future joint forces also need a sound conceptual framework, supported by common joint doctrine and logical procedures, to rapidly and efficiently acquire, disseminate, and act on the critical sensor and intelligence information that passes through those systems.



Amphibious assault vehicles, Agile Provider '94.

Harrier hovering over USS Nassau.



U.S. Marine Corps (Ronald Pixler)

U.S. Navy (Robert N. Scoggin)

Conceptually, JFI may be viewed as a five (but not necessarily sequential) step process.

- *develop concept*—formulate philosophy and/or doctrine, produce a plan of operations, determine overall costs and benefits, and select methods of employment

- *formulate organizational structure*—design aspects of command and control, span of control (centralized versus decentralized), layout, unit size and composition, and tasks

- *specify material*—identify requirements for equipment and/or weapons supporting the concept and organizational structure (includes not only specific material, but numbers, force mix, interoperability, support systems, and C⁴I to sustain new or emerging technology)

- *establish training*—determine tasks, conditions, and standards for using equipment and organization to support the concept, and apply them during joint force training to personnel/units, both individually and collectively, to accomplish the concept (includes establishing joint mission essential tasks and joint tactics, techniques, and procedures)

- *develop leaders*—finally, educate leaders in the concept from purpose to theory, organization to equipment, and training to application for continued success.

Joint Interoperability

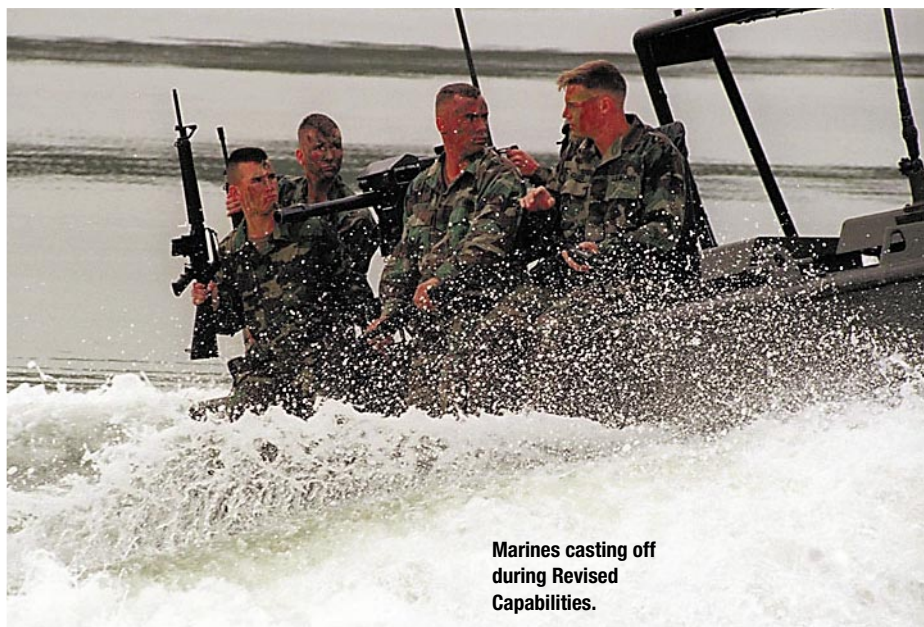
JFI requires the complete interoperability of weapons as well as command, control, communications, computers, intelligence, surveillance, and reconnaissance (C⁴ISR) systems. Due to limited procurement funding and resiliency of legacy systems the lack of interoperability remains a major obstacle to JFI. Many interoperability problems encountered during the Gulf War endure. As a key element, JFI seeks to minimize problems caused by legacy systems while moving toward an efficient and responsive battlefield C⁴ISR architecture with “plug and fight” systems.

In the future, the Joint Battle Center—an activity of the Joint Staff which is collocated with the ACOM Joint

Training Analysis and Simulation Center (JTASC)—will possess the expertise to evaluate C⁴ISR tactical and operational concepts and identify technologies which have the greatest potential for warfighters.

ACOM is also working closely with the Joint Requirements Oversight Council (JROC) and Joint Warfighting Capabilities Assessment (JWCA) teams on interoperability issues while striving to achieve information superiority and maintain it into the next century. The Battlefield C⁴I project has already completed one study and is pursuing enhancements to the interoperability of various C⁴I systems available to joint commanders.

Moreover, ACOM is playing a major role in ensuring that the quintessential joint operation, theater missile defense, fits into an overarching joint warfare construct. Another joint initiative is the assessment of the limitations and capabilities of offensive and defensive information warfare as seen from the perspective of theater CINCs on both the strategic and operational levels.



Marines casting off during Revised Capabilities.

U.S. Marine Corps (C.D. Clark)

In support of joint interoperability, ACOM is sponsoring a series of advanced concept and technology

the joint training and exercise process must focus on the requirements of supported CINCs

demonstrations (ACTDs) in collaboration with the Advanced Research Project Agency. Such demonstrations need a joint advocate to rapidly field promising technologies that complement overarching joint warfighting concepts such as battlefield C⁴I interoperability. One example is the Predator unmanned aerial vehicle.

Joint Training and Exercises

To convert a plan from a forced entry operation into one conducted in an atmosphere of cooperation and coordination, within a period of about 10–12 hours, and to get the word down to the lowest levels of those who had to execute, could only be done by a team that had trained together—not only in each of the services, but trained in a joint environment.

—Henry H. Shelton

The joint training and exercise process must focus on requirements of supported CINCs. ACOM has developed a joint requirements-based

process to effectively and efficiently meet these training needs while reducing OPTEMPO and costs. This process is built on a comprehensive list of common joint mission essential tasks (JMETS), developed in concert with supported CINCs, with designated conditions and measurable standards.

To focus on the requirements of supported CINCs, ACOM identified the types of training already being conducted and where jointness needed to be emphasized—primarily at the joint task force level. A three-tier model was built onto the existing field and service-specific training.

The tier 1 foundation is where soldiers, sailors, marines, airmen, and coastguardsmen gain core competencies by training on service mission essential tasks. In tier 2, joint interoperability training is achieved through field training exercises based on a list of critical interoperability tasks from supported CINCs. ACOM assigns training objectives, coordinates component participation, provides joint transportation funding, assists with joint exercise control groups, and assesses joint doctrine and interoperability. The

frequency and size of the field exercises have been dramatically reduced and refocused. Tier 3 stresses training JTF commanders and staffs by combining tailored doctrinal instruction with operations order development. A realistic computer-aided command post exercise then tests the operations order. The Unified Endeavor (UE) series of exercises serves as the primary vehicle and provides truly “postgraduate level” JTF staff instruction without the cost of large field exercises. In each training program ACOM pursues an aggressive after-action reporting process to evaluate and provide rapid feedback on joint doctrine development and interoperability.

The centerpiece for tier-3 JTF training is JTASC, where advanced modeling and simulation technology, distributed secure communications (including video teleconferencing), and other C⁴I capabilities allow commands from around the world, including supporting and supported CINCs, to participate in these challenging and realistic exercises.

Using complex scenarios based on real-world threat, environmental, and terrain data bases, JTASC provides both JTF commanders and staffs with an environment in which to work through a wide range of organizational, operational, equipment, and doctrinal issues ranging from strategic and theater-lift limitations to rules of engagement, joint target selection, and the placement and use of fire support coordination lines (FSCL). UE exercises at JTASC afford an invaluable means of assessing joint doctrine in a realistic environment short of actual combat. As General Hartzog, commander of U.S. Army Training and Doctrine Command and formerly the first ACOM deputy commander in chief, often points out: “Doctrine . . . represents a consensus of how forces conduct operations today. . . . [It] evolves as questions about concepts are answered or as concepts are validated through analyses, experiments, exercises, or actual operations.”

Another major benefit of JTF training at JTASC is that we no longer have to field an army to train a general. In addition to cost savings, we also reduce PERSTEMPO and family separation time on heavily tasked

U.S. Atlantic Command

FORSCOM (Fort McPherson, GA)

6 Divisions
11 Separate Brigades/Regiments
199,700 AC Soldiers
628,000 RC Soldiers

LANTFLT (Norfolk, VA)

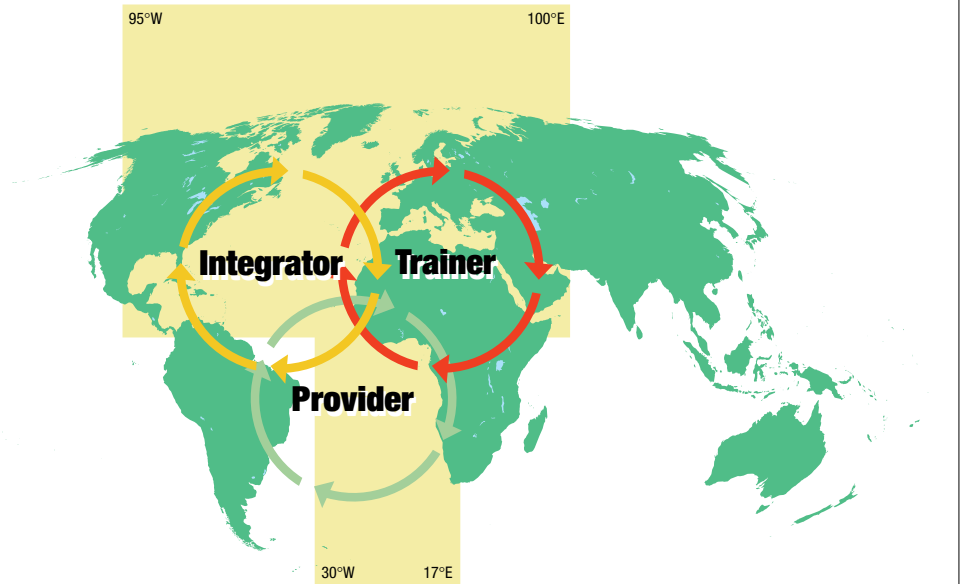
6 Battle Groups
5 Amphibious Groups
124,200 AC Sailors
112,500 RC Sailors

ACC (Langley Air Force Base, VA)

17 Fighter/Bomber/Composite Wings
91,100 AC Airmen
95,800 RC Airmen

MARFORLANT (Camp Lejeune, NC)

1 Division
1 Wing
47,000 AC Marines
42,200 RC Marines



troops. The focus is on JTF commanders, staffs, and C⁴I systems instead of soldiers, sailors, marines, and airmen. Combat forces can then devote limited training time and resources to improving combat skills rather than serving as exercise training aids for JTF staffs.

Beyond Joint

While perfecting JFI, we must understand that forces will continue to operate in complex environments. In addition to preparing active duty personnel, a growing DOD dependence on the Reserve components demands that the training and readiness of Reserve forces and National Guard units parallel that of the active components. Training and readiness oversight (TRO) is a critical step in bringing Reserve component forces into the total joint force structure. TRO presents CINCs with both extraordinary challenges and opportunities. ACOM will work to develop the highest level of joint integration possible while also maintaining the cost effectiveness of Reserve forces. We will also strive to match Reserve readiness to active standards where possible.

Future joint operations are likely to be combined as well and require extensive interagency participation and coordination. Therefore the next step in enhancing joint force readiness will be to coordinate joint training and integration with combined and interagency training and exercises. Our recent efforts in Haiti, along with the Implementation Force experience in Bosnia, provide us with the seasoning to fulfill that important training mission.

Joint Integration and Efficiency

Congress enacted Goldwater-Nichols shortly after the high-water mark was reached in the defense buildup during the Reagan administration. Over the last ten years, budget reductions have reduced our combat force structure by more than 36 percent. DOD procurement has sunk to its lowest level since before the Korean War, while increased OPTEMPO is wearing out equipment at an accelerated rate.

Clearly, resources are insufficient to allow each of the services to maintain its current force structure, modernize, sustain combat readiness, and perform all required missions. Thus we

must reduce duplication and become more efficient. We must do what corporations have done over the past decade—restructure for a changed world, focus on core competencies, and shed overhead that does not add value.

To maximize the capabilities of a smaller force, remaining forces must share technological improvements across the board. By leveraging technology to reduce unnecessary and burdensome command layers, improving joint training and exercises, and encouraging much greater efficiency in joint logistics, we can modernize and still maintain a robust combat force structure.

The changed security environment, combined with rapid advances in communications and weapons technology and mounting fiscal constraints, are pushing the Armed Forces toward greater integration. In future conflicts, smaller forces will have to arrive in-theater ready to fight as a joint team. For that reason, we must continue to work toward achieving coherent joint operations.

The unique position of ACOM as a geographic unified command with combatant control of the majority of



C-5 unloading at Port-au-Prince.

U.S. Air Force (Val Gempes)

joint force integration is not only the most efficient way to fight but can help solve growing budget problems

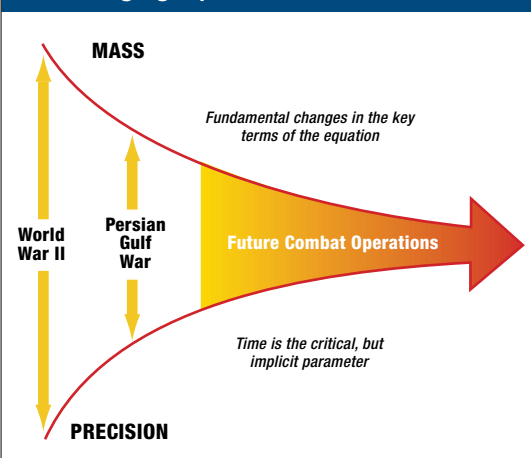
the Nation's combat capability and the mission to train, integrate, and provide joint forces to other forward CINCs, puts it in the forefront of fulfilling *Joint Vision 2010*. This blend of geographic and functional responsibilities gives a warfighting and joint orientation to the ACOM staff. Lessons learned from actual operations such as Haiti and the Unified Endeavor exercises have improved our effectiveness in training as well as in providing joint forces to other warfighting CINCs. By working to make the most effective and efficient use of combat capabilities, ACOM seeks to be a model for the future.

Focusing on core competencies and technology will reduce unnecessary command layers, streamline the decision cycle of JTF commanders, and generate coordinated maneuver and precision strike battle rhythms. Joint force integration is not only the most efficient way to fight but can help solve growing budget problems. JFI

will allow us to preserve deployable combat force structure while reducing unnecessary overhead that adds cost but little value. Preserving combat force structure is essential if we are to build a capable force for the future. Tomorrow's leaders—the young NCOs—can only learn their profession in combat commands and not in the growing number of redundant staff positions.

This Nation deserves a more effective combat capability which is affordable in both dollars and casualties. Fortunately, Goldwater-Nichols provides us with the legislative framework to address many of the structural challenges we face today, and JFI provides us with the process if we intend to shape our forces for the challenges of the 21st century.

The Changing Equation of Combat



JFQ

Warfighting CINCs in a New Era

By JOSEPH W. PRUEHER

Shortly after the passage of the Goldwater-Nichols Act in 1986, Admiral Ronald J. Hays, commander in chief, U.S. Pacific Command (PACOM), called the law a “profound document.” In his view, it codified “relationships, procedures, and authority that every unified commander ought to have had even before the act was passed.” He praised the legislation for clearly putting unified commanders in charge of designated areas of responsibility and making them accountable.

CINCs confront regions in which the range and pace of operations have increased

Congress drafted the reorganization legislation with a Cold War paradigm as the backdrop. It expected the act to strengthen the ability of the Pentagon to deter and defeat Soviet aggression. However, the payoff of Goldwater-Nichols came about in a different security environment. Today the geographic CINCs confront less stable, more dynamic regions in which

the range and pace of military operations have increased. Furthermore, the pace and importance of peacetime activities have placed added burdens on unified command staffs and forces.

Despite these myriad changes, the Goldwater-Nichols prescriptions for unified commands fit this new era as well as they did the old one. Jointness is strongly rooted in

PACOM planning and actions. For PACOM, the demise of the Soviet threat over the last decade has not diminished the fundamental significance of the Goldwater-Nichols Act as joint operators and relations with other service staffs evolve to the right level.

Jointness in PACOM

Earlier this year, the People’s Republic of China (PRC) conducted a series of large-scale military exercises along their coastline opposite Taiwan. Although Washington did not believe that China intended to use military force directly, it assessed the exercises as provocative and publicly denounced them. The United States made it clear that it would oppose attempts by either Beijing or Taipei to forcibly change the status quo. When PRC ballistic missile tests were announced close to Taiwanese ports—30 kilometers north, 50 kilometers southwest—PACOM responded by sending the *USS Independence* carrier battle group to the vicinity. This force deployed in support of the basic U.S. interest of maintaining peace and stability in the region. On May 23, despite PRC exercises and missile tests, Taiwan conducted the first popular election of a Chinese leader in history.

This measured but firm action on the part of PACOM, intended to encourage restraint from both parties, was possible largely because of the clear chain of command established by the Goldwater-Nichols Act. Communication channels efficiently supported the chain of command. Direct discussions between the Chairman and CINC ensured that theater assessments and recommendations were represented in the interagency process, and decisions by the National Command Authorities were passed along precisely as intended.

Within theater, the Joint Intelligence Center Pacific (JICPAC)—the PACOM multiservice intelligence fusion center—played a major role in assessing the situation. Its products were among those forwarded to and used by defense and other officials in formulating U.S. response options. JICPAC and counterpart organizations in other unified commands exemplify increased

Admiral Joseph W. Prueher, USN, is commander in chief, U.S. Pacific Command, and formerly served as vice chief of naval operations.



U.S. Navy

USS Rainier replenishing *HMAS Sydney* and *USCGC Sherman*.

Responsibility-Authority Mismatch

When I was commander in chief of U.S. Southern Command in the mid-1980s, President Reagan's decisions to train Salvadoran forces in the United States as well as Honduras and deploy U.S. troops to Honduras sharply divided Congress. With all the services scheduled to participate, disagreements also arose at the Pentagon. This deployment was an "unprogrammed requirement" for the services, disrupting plans and diverting funds from other activities. Indecorous squabbling broke out among the Joint Staff and service staffs in Washington which demanded more time and effort from my staff in Panama than did coping with problems in Central America.

My headquarters staff included fewer than 150 officers, with an average rank of captain or major. There were two other assigned flag officers: an Air Force two-star and an Army one-star. The former was my air component commander and the latter headed my land component and the brigade which defended the canal. My maritime component commander was a Navy captain.

Each component commander reported to a four-star service commander in the United States for funds, personnel matters, and guidance on priorities. Those service commanders established the length of temporary duty for servicemembers, constrained flying hours per month for aircraft in theater, set training objectives, and controlled allocations for base support and maintenance. Time and again their wishes took precedence over mine. Hence, I became a staunch advocate of reforms to assign genuine authority to each regional CINC commensurate with his responsibilities.

—General Paul F. Gorman, USA (Ret.)

emphasis on jointly produced, all-source intelligence for joint force commanders. Joint intelligence centers, created primarily from service component resources, are fully consistent with Goldwater-Nichols.

Two-Tiered Command and Control

Joint Pub 3-0, *Doctrine for Joint Operations*, enables combatant commanders to "directly control the conduct of military operations," as General Schwarzkopf did in the Persian Gulf War, or "delegate that authority

and responsibility to a subordinate commander." To address the need for responsive and efficient joint actions on the operational level—where strategic requirements are connected to tactical activities—PACOM instituted a two-tiered command and control (C²) concept in 1991 under Admiral Charles Larson. Put simply, a specific short-term mission is assigned to a joint task force (JTF) commander who reports directly to CINCPAC.

Admiral Larson explained the rationale for this system: "During the Cold War, each service had a theater-wide commander in the operational chain, interposing three headquarters between me and the troops in the field. We've developed a new organization to deal with the most likely threat of the future—regional contingencies." He stated in his end of tour report that, "Nothing we've accomplished in PACOM over the last three years has contributed more to the jointness, readiness, and agility of my forces than the implementation of the two-tiered C² structure."

Improving on the lessons learned from employing the two-tiered command and control concept, PACOM uses three interrelated measures to ensure JTF success. First, potential JTF headquarters are preselected. Commands so designated include I and III Marine Expeditionary Forces (MEFs), Third and Seventh Fleets, I Corps, Alaska Command, and Special Operations Command, Pacific. Second, pre-designated commanders and staffs participate in CINC-assisted seminars and exercises to practice crisis action procedures as a JTF headquarters. Third, the CINCPAC staff, assisted by service

CH-47s during CJTFEX '96.



RAAF personnel positioning cannon during Pitch Black '96, northern Australia.

U.S. Air Force (Wall Gempis)

II MEF Combat Camera (A. Olguin)

component and supporting CINCs, both staffs and trains a cadre of roughly 150 potential augmentees. A tailored group of about 40 personnel, selected from this cadre, would augment the JTF staff in a crisis.

By predesignating JTF headquarters, commanders and staffs of single-service commands can take a forehanded approach to preparing for joint operations. These existing commanders and staffs know the area, people, and issues but are staffed, trained, and equipped to function only as service tactical and operational headquarters. Accordingly, they require personnel augmentation, JTF-specific training, and some added equipment to function as JTFs on short notice.

The training program includes a cycle of seminars, command post exercises (CPXs), and field training exercises (FTXs) that help a single-service

JTF training creates the trust needed for full and rapid assimilation

staff to report directly to the unified command level and control joint operations. Tailored for a designated command based on an assessment of its joint mission essential task list (JMETL), training normally includes headquarters-wide topics such as crisis

action planning and JTF organization as well as specialized coverage of joint intelligence, logistics, and personnel management.

The augmentees who will round out JTF staffs during crises support much of this training. Repetitive support from trainers/mentors during seminars, CPXs, and FTXs not only makes these augmentees proficient but promotes standardization across PACOM. Finally, since these specially trained officers and NCOs bring expertise and skills to JTF commanders, not as liaison officers but as integrated staff members, JTF training creates the trust needed for full and rapid assimilation.

Feedback from commanders and external evaluators confirms the soundness of this “train the way you’ll fight” concept and JTF preparation measures. After a recent PACOM-sponsored CPX (Tempest Express 96-3) at Fort Lewis, Lieutenant General Glenn

Marines landing on Kauai, Hawaii, during RIMPAC '96.



U.S. Navy (Jeffrey S. Viano)

Marsh, the commanding general of I Corps, observed, "I am more convinced than ever that this type of joint training is some of the best and most useful that we do, and it goes a long way toward building the personal and professional relationships among our staffs which are necessary for success."

Although PACOM has advanced its thinking related to training needs on both of these tiers, JTF training is clearly work in progress. Acting closely with U.S. Atlantic Command (ACOM), the future JTF training picture will result in a more efficient and effective program to capitalize on ACOM investments and capabilities for PACOM theater-specific JTF training and augmentation experience.

For example, combining ACOM core JTF train-up with theater-specific CPXs/FTXs would expose staffs to standardized instruction while focusing on region-unique scenarios, environments, and plans. CPXs reaching back electronically to the Joint Training Analysis and Simulation Center in Suffolk, Virginia, would not only be more efficient in some aspects but allow a JTF commander and staff to conduct joint/combined operations using organic C⁴I systems from deployed locations. This is particularly critical for afloat staffs of the Third and Seventh

Fleets and other JTFs working in coalition scenarios.

While the theater staff benefits from participation in JTF exercises, scheduling difficulties may preclude the unified command level from becoming fully involved. A simulated or "virtual staff" could readily substitute for an engaged headquarters or even facilitate multiple, simultaneous distributed JTF exercises.

Theater staffs will normally cover overhead issues such as scenario development, exercise control, role playing, and evaluation with in-house personnel. Drawing on the ACOM training orientation, the theater CINC's staff would be freed from some routine exercise overhead. Both tiers—unified command and JTF headquarters—could then fully engage in the exercise play.

Cross-Department Assignments

We must broaden the joint officer management system to complement the progress made in training to include the second tier, JTFs. Although unified command staffs benefitted from Goldwater-Nichols improvements in joint personnel management, JTF staffs did not. While we charge JTFs

with a tremendous number of joint warfighting tasks, they remain predominantly single-service manned. The next step should push joint personnel manning to JTF-level operators, concurrent with a scrub of real joint billets.

In PACOM exercise after-action reporting, JTF commanders highlighted a need for resident sister-service expertise to complement the infusion of joint personnel they receive during crisis augmentation. The PACOM solution is an interdepartmental exchange of officers at the major/lieutenant colonel and lieutenant commander/commander levels. These officers would be assigned to key billets to provide potential JTF commanders daily access to experts in sister-service capabilities, limitations, and employment doctrine. U.S. Central Command recently implemented a similar exchange focused at the service component level.

Cross-service assignment programs already exist, primarily in the functional area of tactical fire support. For example, the Air Force assigns air liaison officers and tactical control parties to Army units at various levels, and the Army allots ground liaison officers to Air Force fighter and airlift units. Other programs support cross-service attachment on a mission basis such as Marine air-naval gunfire liaison and naval fire support officers to Army units.

A workable concept would involve one to three officers per service on each potential JTF staff. The exchanges would be zero-sum actions. Staffs gain the same number they provide. Assigned full-time exchange officers would work routine actions but spend most of their time on joint matters. This influx of service expertise will make JTF staffs more responsive in initial crisis action planning and more effective in integrating joint capabilities during mission execution.

Such assignments would provide joint experience and meet the intent of Goldwater-Nichols with respect to joint duty. Accordingly, they should be favorably considered as joint billets by the joint duty assignment list (JDAL) review board. Once the billets are added to the list, the services can give joint service credit to officers who fill them.

This concept meets the Goldwater-Nichols goal of enhancing the effectiveness of military operations with the current reality that they are and will continue to be conducted through JTFs. Used in conjunction with a JTF augmentation, cross-department staffing of pre-designated JTF headquarters would reduce the turbulence of ad hoc attachment during the critical initial phase of a contingency.

Resource Allocation

Two-tiered command and control as well as cross-service assignments represent advances in the joint agenda. The defense resource allocation system also continues to evolve and gain fame because every American identifies with its bottom line—the dollar.

Today the resource allocation process blends the intent of Goldwater-Nichols by providing for more efficient use of defense resources and assigning clear responsibility and commensurate authority to CINCs. The Vice Chairman heads the Joint Requirements Oversight Council (JROC),

CINCs have to ask for what they need to accomplish their missions, but not more

which helps the Chairman develop programmatic advice for civilian leaders. The former as well as current Vice Chairmen, Admiral Bill Owens and General Joe Ralston, have made concerted efforts to incorporate CINC inputs to the Chairman's advice.

As the JROC process evolves, CINCs will have enhanced opportunities for "front-end" inputs while deciding what to do. For example, CINCs report readiness shortfalls to the Chairman through the joint monthly readiness review (JMRR). Historically, some 75 percent of JMRR issues require programmatic rather than operational solutions. The Chairman directed that such programmatic issues flow directly into the resource allocation system. The entry point will be the joint warfare capabilities assessments (JWCA), analytical efforts that support JROC.

Recent JROC staff visits to CINCs, intended to solicit front-end and mid-course recommendations, have increased CINC participation in the studies well before they were called on to vote.

CINCs must engage appropriately in the resource allocation process to procure tomorrow's forces while maintaining their respective fundamental command warfighting focus on employing today's forces. This involves balancing current and future readiness, which both fall within their purview. As warfighters, CINCs have to ask for what they need to accomplish their missions, but not more. They must state their requirements precisely so their instructions are not used to support every conceivable program. Insatiable appetites for more, new, and faster things do not help—and hedging on "more is better" is not the answer either.

Two modifications in the resource allocation process would enable the unified commands to provide better input. First, the Vice Chairman recommended a standardized format for CINC integrated priority lists—an inventory of the combatant commander's highest priority require-

ments across service and functional lines and defining shortfalls in key programs. This will allow JROC to more clearly identify CINC consensus, which would add potency to the Chairman's advice to the Secretary of Defense on requirements, programs, and budgets. A format that provides a rank ordering from one to twenty-five with only one "system" per rank would force the hard choices. After all, resource allocation boils down to tough decisions on offsets.

This leads to the second recommendation. Future JWCA teams should identify alternatives and present associated impacts—that is, cost savings and resulting shortfalls—to allow CINCs to make better informed choices. Eventually, as analyses mature and JWCA's begin cross-functional studies, such an approach will be necessary to assess macro offsets to support our mutual goals.

Beyond doubt, Goldwater-Nichols has been, and continues to be, a positive influence on unified commands and the resulting joint awareness and culture. The act's intent for a clear chain of command has been evident in the application of supporting policies and doctrine, as the recent crisis in the Taiwan Strait and every contingency over the past decade has underscored. Other intentions—such as improving the military advice the Chairman provides to civilian leaders, placing clear responsibility and authority for mission accomplishment on the combatant commander, using defense resources more efficiently, and improving the joint officer personnel management system—have been equally successful.

There is, however, room for refinement even where much has been achieved. Preparing JTFs for contingency operations, improving the input of the CINCs to the resource allocation process, and evolving to the correct balance for CINC responsibility and accountability for both a long- and near-term view of his AOR are three such areas. As Admiral Hays prophesied in 1988, "I believe that it will be another five, perhaps even ten years before the full impact of Goldwater-Nichols sets in." His call was about right.

JFQ



U.S. Navy (Jeffrey Viano)

Emergence of the Joint Officer

By HOWARD D. GRAVES and DON M. SNIDER

Both the form and substance of professional military education (PME) have been subjected to basic and revolutionary reforms in recent years. The farsighted Goldwater-Nichols Act, though hotly debated and strongly resisted at the time of its passage, mandated and catalyzed this change. Initially the law had little appeal to the military departments. Today each service accepts, indeed embraces, these reforms because their contribution to the effectiveness of joint warfare outweighs the new burdens which they have admittedly placed on the services.¹

PME reforms were the result of two profound and complementary thrusts found in title IV of Goldwater-Nichols that dealt with officer personnel policy. The first, which addressed form or process, created joint specialty officers (JSOs) and imposed criteria for their selection, education, utilization, and promotion. The second, one of substance, revamped the content of military science as it applies to the education of JSOs through its focus on emerging joint doctrine.

Recalling that the military is defined, as well as delimited, by its expertise in military science and that this expertise is an intrinsic part of the self-concept of the officer corps and its relationship to the state, it is easy to see the prescient mutual significance of these two new thrusts in PME. Together, they have produced joint officers of a kind rarely before found in our military institutions and culture. Some

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may disagree with this characterization by pointing out that Goldwater-Nichols only defined new duty positions and educational requirements. But they misunderstand the revolutionary nature of what has occurred in the joint arena over the last ten years—the clear emergence of a new culture among the leaders of the Armed Forces.

This new culture is truly joint. It is evidenced in the experiences of officers who have been educated and served in joint billets, many during operations in Panama, the Persian Gulf, Somalia, Haiti, and Bosnia.² The reforms introduced under Goldwater-Nichols are not the sole cause of this emerging joint culture, but they were vital in facilitating the learning experience through which it is being nurtured.

Joint culture continues to emerge. Its ultimate impact on the individual services is not yet fully known, nor is the ethos it advocates. One outcome appears certain: the next logical steps in the evolution of joint PME will present serious challenges. As we face them, it is vital—especially for younger officers—to recall that the Armed Forces successfully adapted to new realities under title IV of the Goldwater-Nichols Act.

Influences on PME

The principal changes brought about in joint PME under Goldwater-Nichols include actions that:

- established the Chairman as principal adviser to the President and Secretary of Defense on all military issues including PME (previously the domain of the corporate JCS)

- defined “joint matters” for educational and other purposes as relating to the integrated employment of land, sea, and air forces in the areas of national military strategy, strategic and contingency planning, and command and control of combat operations under unified command, whereas before they were not clearly defined and traditionally included only joint planning

- created a JSO career track to improve the quality and performance of officers assigned to joint duty; mandated that critical positions identified in joint organizations be filled only with JSOs contingent upon their completion of joint PME

- mandated maintaining “rigorous standards” at joint PME institutions for educating JSOs, where previously there had

been neither joint educational programs nor required standards

- mandated promotion policy objectives for officers in joint duty assignments, objectives directing that as a group these officers should be promoted at a rate comparable to officers serving on service staffs in the military departments

- required newly promoted flag and general officers to attend the Capstone course, which is designed specifically to prepare them to work with all the services

- designated a PME focal point in the vice director, Operational Plans and Interoperability (J-7), Joint Staff, who is dual-hatted as the deputy director, Joint Staff, for military education and oversees the Military Education Division (J-7).

Moreover, a program for joint education has evolved into a PME framework which relates five educational levels to career phases (namely, pre-commissioning, primary, intermediate, senior, and general/flag officer), each with its own mandated learning areas and objectives.³

the next logical steps in the evolution of joint PME will present serious challenges

These provisions, with others too numerous to detail here, linked assignments, education, and promotion potential to joint duty. The law had remarkable effects on service policies relating to professional development. The services had to adjust traditions, particularly the convention that officers did not serve outside their service nor their tight-knit career specialty lest they fall behind their contemporaries who remained in the service’s mainstream.

To effect change in the services, Goldwater-Nichols needed to define the nature of joint officer development and create institutional incentives sufficient to promote its ultimate legitimacy.⁴ As indicated, it did this initially by linking assignments, education, and later promotion potential. In subsequent years, the effectiveness of joint combat operations has been even more powerful in persuading officers that joint duty is both personally fulfilling and career enhancing.

Institutional Costs

The services have adapted to the new realities of Goldwater-Nichols, but not without costs. The requirement to assign promising officers to joint billets who otherwise would receive positions which their service deemed important to its own missions has complicated personnel management. The increased quality of officers serving in joint assignments resulted in a corresponding decline in the overall quality of service headquarters and operational staffs, a cost more quickly recognized by some services than others. Further complications have arisen over the time officers spend outside their services for joint PME and in joint duty assignments, which in many cases now approaches 20 percent of professional careers.

The third cost has been an unrelenting increase in the number of joint billets, more than 10 percent over the last six years alone, a period in which the services markedly reduced their strength in officers. Lastly, inflexibility in managing JSO assignments and increased turbulence because of the requirement to attend phase II of the program for joint education (PJE) during twelve weeks in residence at the Armed Forces Staff College constitute ongoing costs to the services.

Notwithstanding their expense, these reforms have been so fruitful that on balance the result has been the emergence of a new joint culture. America’s evolving approach to warfare, which is increasingly joint in all respects, has been supported, even led and facilitated, by officers professionally educated and employed under Goldwater-Nichols.

Ultimately, the benefit of PME reforms must be measured against the performance of the Armed Forces in defending and furthering national interests. In this case the record is clear: better officers, better prepared for joint force employments, with markedly better results in integrating service capabilities on the battlefields and in regional conflicts.

With so much successful adaptation over the past decade, is joint PME now established for the decades ahead?

If not, what issues should occupy those responsible for preparing officers for joint duty? Two broad sets of ongoing changes in the security environment create challenges for designers of joint PME. The first relates to future missions of the Armed Forces—those purposes for which the Nation will employ the military in the next millennium. The second centers on the response of Western democracies, including the United States, to a new security environment and its implications for civil-military relations.

Future Missions

With respect to missions of the future, it would appear that within the residual, state-centric international system, conflicts among major powers will be the exception.⁵ But nonstate actors have increasingly created capabilities which endanger U.S. and allied interests in widely separated regions. Threats exist along two vastly different segments of the conflict spectrum: at the low end with operations other than war (OOTW), and at the high end—beyond conventional war as seen in regions like the Persian Gulf—through the proliferation of weapons of mass destruction (WMD), some potentially to nonstate actors. Recent OOTW missions which have involved joint forces—in Somalia, Haiti, Rwanda, Bosnia, Liberia—contrast sharply with the focus of the Cold War era and the regional conflict in the Gulf that immediately followed it. But in fact they have been the normal missions of the Armed Forces save for the historical anomaly of the Cold War.⁶

The need to be prepared for vastly contrasting missions—from OOTW to regional war with WMD or a return to major power competitions—poses significant challenges for joint PME. First, since OOTW missions do not usually involve our vital interests (with the exception of international terrorism), the polity will expect them to be achieved without casualties and other costs which are not commensurate with the

significance of those interests. Thus these missions must be conducted swiftly and efficiently, with even a higher premium on pre-conflict integration of service capabilities and joint training readiness. Furthermore, they are likely to have limited objectives and be of short duration, creating the aura of constabulary missions.⁷

The tensions within these evolving missions already are, and will continue to be, quite real for officers. Will core competencies and self-concepts be focused on the role of the warrior or on that of the constable and peacekeeper? Most OOTW missions have also called for decentralized mission execution. This dispersion requires greater political-military sophistication in younger officers, to include direct contact with the media, non-governmental organizations, and foreign governments, as well as coping with the inherent ambiguities and complexities of such international operations.

will core competencies be focused on the role of the warrior or on that of the constable and peacekeeper

Such missions also require officers of exemplary character since the ambiguities and complexities of international operations often have a moral-ethical character, and joint commanders must work with foreign officers whose culture and institutions reflect a different value orientation.

Since the Nation will always rightly expect that its Armed Forces be prepared across the full spectrum of potential conflict, the success of future adaptations of joint PME may well depend on how this dilemma is resolved. The challenge will consist of further developing competencies for new, limited missions while enhancing joint warfighting—a daunting task given the likelihood of continuing resource constraints. This brings us to the second



Medics carrying wounded Haitian.

59th Signal Company, Combat Camera (Brian Gavin)

set of ongoing changes that will influence joint PME—the nature of the responses by democratic governments, including the United States, to changes in security imperatives.

A New Environment

Democratic responses can be aggregated into four areas, each diverging sharply from the patterns of the past five decades, and with some quite important differences between America and its allies. First, the resources being allocated to national security have been sharply reduced and will remain so until a new threat to our vital interests emerges for which elected governments can extract the necessary resources from internally oriented publics.⁸ Coupled with the requirement for political legitimacy in the use of military force, as observed in the Gulf War and Bosnia, this means that Western democracies will fight future conflicts with political-military coalitions.⁹

Secondly, unlike the Cold War era of long-standing coalitions, the future norm will consist of ad hoc and conditional commitments by democratic governments, again as seen in the Gulf War and recent OOTW missions. The implications for joint PME are clear. For every joint concept, doctrine, or course, the United States must develop

The Desirability of Joint Duty—1982

Joint assignments are seldom sought by officers. A joint position removes them from the environment for which they have been trained, in which they have established relationships and reputations, and in which they seek advancement. It places them instead in a wholly new environment involving unfamiliar procedures and issues for which most of them have little or no formal training. Their fitness reports (which affect their careers and prospects for advancement) are often entrusted to officers of other services with little in common by way of professional background.

Adding to these concerns is the perception that much of the work on the Joint Staff is unproductive, and that too much effort is wasted on tedious negotiation of issues until they have been debased and reduced to the “lowest common level of assent.”

The general perception among officers is that a joint assignment is one to be avoided. In fact, within one service it is flatly believed to be the “kiss of death” as far as a continued military career is concerned. In contrast, service assignments are widely perceived as offering much greater possibilities for concrete accomplishments and career enhancement. As a result, many fine officers opt for service assignments rather than risk a joint-duty assignment. Yet joint positions have the potential for making major contributions to the defense effort, and offer challenging work to the finest officers.

—Chairman of the Joint Chiefs of Staff Study Group,
The Organization and Functions of the JCS (1982)

parallel combined capabilities in concert with its allies. Those responsible for joint PME should urgently consider the profound implications of the rapid internationalization of U.S. military institutions and processes.

The third response is the evolving specialization in U.S. military capabilities vis-à-vis those of our allies. Basically, Washington has indicated its intention to maintain a high-tech competitive advantage—in pursuit of a revolution in military affairs (RMA)—whereas other nations, with the possible exception of France and Japan, have eschewed such a role. Unfortunately, any intention to adapt and reshape the Armed Forces through an RMA is unresourced as yet. Further, developments to date indicate an asymmetric application of RMA capabilities across the conflict spectrum, with few benefits for OOTW, currently the most frequent grounds for employing joint capabilities.

Since joint PME operates at the intersection of intellectual development and operational art, adapting to an RMA requires the formation of officers who are analytic, pragmatic, innovative, and broadly educated.¹⁰ History teaches that effective PME—though insufficient by itself—has proven to be necessary for military innovation, experimentation, and adaptation. This resulted primarily when PME provided the dual benefits of training in new factual knowledge as

well as influencing officer attitudes and perceptions toward fundamental shifts in military doctrine and organization.¹¹ But the success of such investments in human capital is problematic at best given the political clout of congressional-industrial interests that favor spending on defense hardware and software. Thus, only at senior levels where the civilian and military leadership make these trade offs can the specific challenge from a potential RMA to joint PME be met.

In the fourth area of response, our allies have significantly reshaped their force structures, in some cases even making changes in reserves and conscription, although America has done little. The most notable examples are Britain and France, who have extensively reduced and reorganized their militaries. France even announced the end of obligatory national service.

Collectively, the implications of these responses for PME—at service, joint, and combined levels—are ominous. Just as role specialization, a potential RMA, and sharp declines in resources are making adaptation, innovation, and reshaping more critical to military institutions—processes historically facilitated by PME—the Armed Forces are heavily engaged in

missions for which they are relatively least suited, consuming even greater shares of declining resources. This is more true of the most critical asset for change: the focus of senior military leaders.¹² Thus, unless resourced and nurtured by them, PME may regress from the notable strides made under Goldwater-Nichols.¹³

Overarching Challenges

Regardless of which future unfolds, those responsible for PME will face two transcending and thus key challenges. The first is retaining the right balance between service and joint/combined PME. The second and more important is maximizing the contribution of joint PME to the moral-ethical development of officers.

At the “point of the spear” in joint warfighting are service capabilities that enable the Armed Forces to conduct land, sea, and air operations in successive and successful battles. Developing and educating officers in the integrated employment of these capabilities, joint or combined, should not serve to diminish core service capabilities. PME should not become too joint. If it does, the profession of arms could be criticized for “majoring in minors.” Calls for substantial amounts of joint education down to the precommissioning level, among other initiatives, could rapidly lead to that point. By contrast, service culture and interservice competition, especially on the tactical level, are constructive aspects of maintaining an effective defense establishment.¹⁴

Of course such competition at higher levels has occasionally gotten out of bounds, such as when constrained resources inflame it, and perhaps could once again. On the other hand, officer education is not the most effective method to deal with perceived excesses in interservice rivalry. Effective civilian leadership, which can easily channel such competition to constructive adaptations and innovations, is a more appropriate corrective.

Civilian leadership cannot, however, effectively address the second challenge. The moral-ethical dimension of military service, vital in educating officers, is inherently part of the “contract” that the Armed Forces have maintained with the Nation. Were the

military to abrogate that pledge, as recent actions by a few officers have demonstrated, it would cease to be a profession. It would become unattractive to those who might wish to serve and unsupported by those it is dedicated to protect. Furthermore, and aside from this contract, officers have always had to act with integrity and

officer education is not the most effective method to deal with perceived excesses in interservice rivalry

trustworthiness. Such attributes will remain a functional requisite to mission accomplishment in a profession that unleashes violence as a team, with each member subject to unlimited liability.

As noted, OOTW test such trustworthiness early in an officer's career. Therefore at a time when individual character is becoming less central to the society which professional officers serve, it remains of unrelenting importance to them regardless of grade or assignment. To meet that need, all services are making serious efforts to develop and maintain leader character. But such efforts are not coordinated and appear to be implemented unevenly.

Improvements in moral-ethical development are needed. Recent cases of untrustworthiness include adultery and fraternization on the part of senior officers, failure to hold officers accountable for friendly fire incidents which cost lives, personal use of government aircraft, and more intrusive "zero defect" command climates which severely test principled performance at every level. Thus, if a joint culture is emerging, it is equally clear that its ethos at the joint level is largely unarticulated and has yet to be successfully inculcated. Unfortunately, neither the new instruction issued by the Chairman on PME (CJCSI 1800.1, March 1, 1996), nor *Joint Vision 2010* even broaches the question of character development for future military leaders. In addition, this ethos is undergirded only through discrete, uncoordinated, and less than effective efforts by the services to strengthen individual character and commitment to institutional values.

An overriding need exists to imbue joint PME with an ethos which is suited to the emerging culture. The moral-ethical development of leaders, their education in character, occurs much more in the field and fleet than in academic settings. But knowledge of ethics and values, which can be conveyed through joint PME, is a necessary component of this development. PME curricula are already overflowing with good joint subject matter. That is exactly the point. For the moral-ethical development of joint officers, the military risks supplanting the essential with the good. Desiring to remain a profession, those responsible for the future of joint PME should not settle for so little.

In 1986, Congress transformed the officer corps over harsh opposition from the Pentagon. Not discounting the remarkable progress of the last decade, new difficulties have emerged for joint education. Senior military leaders should not forget the lessons of the past. The challenge now is to reshape PME—balancing the Nation's investment in its future military leaders and their character against investments in technology and forces—without relying on Congress. **JFQ**

NOTES

¹ The authors are indebted to the deputy chiefs of staff for personnel of all the services for providing candid comments which assisted in the preparation of this article.

² Here we subscribe to the definition of organizational culture advanced by Edgar H. Schein, "Culture is what a group learns over a period of time as that group solves its problems of survival in an external environment and its problems of internal integration." See "Organizational Culture," *American Psychologist*, vol. 45, no. 2 (February 1990), pp. 109, 111.

³ Not all the reforms summarized were mandated by the Goldwater-Nichols Act. Of particular importance was the legislation passed in 1989 as a result of the efforts of a House panel chaired by Representative Ike Skelton. See U.S. Congress, House, Committee on Armed Services, *Report of the Panel on Military Education*, report. no. 4, 100th Cong., 1st sess., 1989.

⁴ That such institutional change is possible, even predictable, is well documented. For example, see Deborah Avant, *Political Institutions and Military Change: Lessons from the Peripheral Wars* (Ithaca: Cornell University Press, 1994).

⁵ Among many works on this subject, see Martin Van Creveld, *The Transformation of War* (New York: The Free Press, 1991), and Donald M. Snow, *The Shape of the Future*, 2^d edition (New York: M.E. Sharpe Publishers, 1995).

⁶ Samuel P. Huntington, "Nontraditional Roles for the Military," in *Noncombatant Roles for the U.S. Military in the Post Cold-War Era* (Washington: National Defense University Press, 1993), pp. 3–12.

⁷ For early insights on such roles, see Morris Janowitz, *The Professional Soldier* (New York: The Free Press, 1960), particularly chapter 20.

⁸ See Don M. Snider et al., "The Coming Defense Train-Wreck . . . and What to Do About It," *The Washington Quarterly*, vol. 19, no. 1 (Winter 1996), pp. 87–127.

⁹ See International Institute of Strategic Studies, "The Problem of Combat Reluctance," in *Strategic Survey, 1995–1996* (London: Oxford University Press, 1996), pp. 48–57.

¹⁰ For amplification of this point, see Steven H. Kenney, "Professional Military Education and the Emerging Revolution in Military Affairs," an unpublished paper presented at a symposium on the same subject convened at the National Defense University on May 22–23, 1995.

¹¹ See *Military Innovation in the Interwar Period*, edited by Williamson Murray and Allen R. Millett (New York: Cambridge University Press, 1996).

¹² The critical role of military leaders in peacetime innovation is well documented. See Stephen P. Rosen, *Preparing for the Next War* (Ithaca, N.Y.: Cornell University Press, 1991), particularly chapters 3 and 9.

¹³ General Shalikashvili is attempting to do this but has noted a lack of progress in critical areas: ". . . despite the importance we have attached to simulations, nobody has yet developed a single, fully-tested, reliable, joint warfighting model." See "A Word from the Chairman," *Joint Force Quarterly*, no. 6 (Autumn/Winter 1994–95), p. 7.

¹⁴ Don M. Snider, "The U.S. Military in Transition to Jointness: Surmounting Old Notions of Interservice Rivalry," *Airpower Journal*, vol. 10, no. 3 (Fall 1996).

PROSPECTS

for the Military Departments



DOD (Helene C. Sirkel)

By MICHAEL B. DONLEY

Secretary Perry visiting Task Force Eagle.

Through the Goldwater-Nichols Act, Congress redistributed authority within the Pentagon to meet the challenges of joint warfare, which demand a greater integration of service capabilities. The accumulation of power by joint organizations over the past ten years may have led the services to feel that their influence is in free fall without any stopping point in sight. With attention heavily focused on jointness today, the role of the services is too often regarded as a secondary issue.

Organizational Trends

Two significant trends in defense organization have emerged since 1947: the centralization of authority within OSD and the strengthening of structures responsible for joint advice, planning, and operations. Successive amendments to the National Security

Act that increased the authority of the Secretary of Defense, Chairman, and combatant commanders reflect these trends. In general, these changes have had a common goal of improving the unity of effort within DOD and reducing the relative independence which the military departments had enjoyed for 170 years.

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These trends have produced three major centers of power which account for nearly all DOD components: unified authority, direction, and control from the Secretary and his staff (OSD); joint military advice, planning, and integrated employment from the Chairman and joint structures; and organizing, training, and equipping administered by three military departments clustered generally around land, sea, and aerospace forces. Within this triangle, the in-

the assignment of forces to combatant commands also reduced the authority of service chiefs

fluence of OSD and the joint structures clearly has been ascendant while that of the departments has been declining.

Between 1947 and 1958, several fundamental changes in defense organization affected the military departments. These included creating a higher level National Military Establishment and Secretary over the services (1947); forming a stronger DOD, downgrading the status of services from executive (that is, Cabinet level) to military departments, and removing the service secretaries from the National Security Council (1949); and removing service secretaries and chiefs from operational chains of command (1958). As one scholar noted in the early 1960s: "... the services are being dismembered and disemboweled, their utility is decided continually in decrements... the only relevant question being whether the process is too fast or too slow."¹

In general, these changes reduced the role of the service secretaries as independent civilian policymakers and created patterns of interaction whereby service staffs sometimes worked directly with OSD, thus bypassing service secretariats. At the same time, changes in the chain of command and the assignment of forces to combatant commands also reduced the authority of service chiefs, though their influence in joint matters remained strong. These losses of authority changed working relationships within DOD in many ways, sometimes causing friction between

civilian and military leaders in the services, yet also bringing them closer together to protect the remnants of service autonomy.²

Outside commissions and reports provided conflicting opinions on the military departments. The Symington Committee (1960) recommended the strong *centralization* of management under OSD and the elimination of service secretaries and their staffs. The Blue Ribbon Defense Panel (1970) advised *decentralization* and a reduction in the duplication of effort among OSD, service secretariat, and service staffs. The Ignatius Report (1978) sought a stronger role for service secretaries, recommending their greater use in defense-wide tasks. It also promoted further reduction of the duplication in service headquarters and "common access" by the service secretaries and chiefs to analytical and oversight functions.

Though such recommendations produced some minor adjustments in responsibilities within the military departments after 1958, the next major crossroads for statutory change came with the Goldwater-Nichols Act of 1986.

Impact of Goldwater-Nichols

The DOD reorganization of 1986 had direct and indirect effects on the military departments. The latter included changes which did not directly affect the services but increased the authority and responsibilities of organizations above them. They reinforced broad trends, such as strengthening the roles of the Secretary, Chairman, and CINCs.

The provisions which fortified these key players indirectly reduced the influence of service secretaries and chiefs. With the Chairman clearly identified as the principal military adviser and in control of the Joint Staff, individual chiefs would be less capable of wielding an informal service veto over collective JCS positions. CINCs were given more peacetime authority over component commands. A new unified command, U.S. Special Operations Command (SOCOM), was given "head

USS Paul Hamilton undergoing sea trials.



of agency" authorities, including budgeting and procurement responsibilities, which made it unique among combatant commands and akin to a military department. Strengthening the authority of the Secretary over all DOD activities further emphasized that service secretaries function under his authority, direction, and control.

In its direct effects, Goldwater-Nichols made several changes to military departments that had mixed results. One of the more important was to provide uniformity in the statute, prescribing the responsibilities of service secretaries to the Secretary of Defense and ensuring that secretaries and chiefs have the same basic responsibilities and reporting relationships within each service. The act also attempted to reduce duplication between service secretariats and service staffs by separating civilian and military functions and by assigning certain "sole responsibilities" to the Secretary. In this regard Goldwater-Nichols has only partially succeeded. The potential integration of service secretariats and staffs was the underlying issue and a major sticking point. The House bill favored integration while the Senate was opposed to it. Finally, the conferees



M-1 tank on trail in Bosnia.

55th Signal Company / Combat Camera (Nicholas J. Blair)

determined that service secretariats and staffs should be separately organized but expressed continuing concern over this duplication which survived in the compromise language.³

Structural tensions in military department headquarters remain and are subject to even more scrutiny today with pressure to downsize staffs and reduce duplication. The Commission on Roles and Missions of the Armed Forces (CORM) found that having two staffs in the same headquarters (three in the case of the Department of the Navy) impedes integration of effort and causes friction in the headquarters as well as at higher and lower echelons. The commission concluded: "Military department secretaries and chiefs would be better served by a single staff of experienced civilians and uniformed officers" (with some accommodation to the Navy's special circumstances). No significant progress has been made on this highly contentious proposal. This issue is further burdened by the need for statutory relief in certain areas before closer integration and consolidation can be attained.

In sum, Goldwater-Nichols was less concerned with reforming military departments than strengthening joint components. Further reforms envisioned in the original House bill and

Senate staff report were lost in the compromise. In attempting to rationalize civilian and military functions in service headquarters, Goldwater-Nichols probably raised as many questions as it answered.

Future Possibilities

Goldwater-Nichols clearly left unfinished business in its treatment of military departments, and the points outlined above are good candidates for review. The basic role of service secre-

the role of the military departments depends upon how the Secretary of Defense exercises civilian control

taries is also a perennial issue, and missions and functions across the military departments certainly need to be addressed. Here, the higher level issue of the role of military departments within the defense establishment is the focus.

Among the corners of the organizational triangle described earlier, changes since Goldwater-Nichols have continued the erosion of service influence. The equipping function, of course, has evolved in ways that leave military departments largely as initiators, managers, and administrators of procurement programs whose content—increasingly seen from a joint perspective—is decided in greater degree and detail by OSD (namely, by the

Under Secretary of Defense for Acquisition and Technology), with the advice of joint structures. Implementation of the Defense Management Review of 1989, creation of new defense agencies or expansion of existing ones, and introduction of new accounting practices—associated with the Defense Business Operations Fund—also pulled responsibilities for administration, support, and infrastructure away from the military departments and toward OSD.

Some functions migrating from the services have also moved toward joint structures. Examples include establishing SOCOM and assigning the mission of joint force integration to U.S. Atlantic Command. Other changes, such as assignment of *peacetime* resource management responsibilities to U.S. Transportation Command, are less visible but no less important.

If this trend continues, it is possible to envision parts of even more support responsibilities (such as medical, maintenance, and logistics) shifting toward OSD and defense agencies, and some related to force development (such as certain types of planning, programming, and training) moving to joint structures. Such changes would impact on both major command activities and the Washington headquarters of the military departments. If realized, they would further diminish the control of service headquarters over policies, personnel, installations, and resource allocation, thus ultimately raising a fundamental question about the need for military departments.

Limiting Erosion

How far might service responsibilities erode? Is it possible to describe clear organizational dividing lines? Paradoxically, defining the future role of OSD is key to answering these questions. The role of the military departments, especially their headquarters, basically depends upon how the Secretary of Defense perceives and exercises civilian control, how and to what extent he delegates authority to lesser OSD officials, and how far he goes in creating defense-wide activities. The

Marines securing perimeter during CJTFEX '96.



II MEF Combat Camera (A. Olguin)

question is not how narrow service responsibilities may become, but rather how broad the role of the OSD staff should be. And here there are probably practical limits.

Unbounded growth in OSD could eventually be recognized as detrimental for two reasons. First, the increasing tendency to move from program oversight to hands-on resource management highlights the limitations of headquarters staffs as operating agents. Responsibility for resource management tends to turn advisers into advocates. Second, the functional orientation and growth of the OSD staff, reinforced by consolidation of defense agencies, have the effect of stovepiping or “balkanizing” management which then makes it more difficult for the Secretary to provide unified direction to DOD. Eventually, the deeply entrenched structure of decentralized technical services and bureaus which plagued the War and Navy Departments prior to World War II could reemerge, this time led by under and assistant secretaries of defense.⁴

The CORM report and FY96 DOD Authorization Act (section 901) highlighted the need to review the role of the OSD staff. Beyond acting as the immediate staff of the Secretary of Defense, its broader role is not addressed adequately by statute or in DOD Directive 5100.1 which outlines major organizational functions. While retaining the flexibility to organize and operate

DOD headquarters as the Secretary sees fit, further definition is necessary to articulate (among other things) responsibilities of civilian and military staffs supporting the Secretary and how duties for the administration of DOD support and infrastructure activities should be divided. Sorting out the future role of OSD is therefore central to various pending management issues and crucial for the military departments.⁵

Absorbing major portions of military departments into the joint system also has drawbacks. Responsibilities of the Chairman and joint components focus on joint military advice, war-fighting, and joint force development and integration. Because these tasks are complicated enough, adding the duties of organizing, training, equipping, maintaining, and supporting the entire Armed Forces would overwhelm the existing joint system and change its nature. The span of control is arguably too broad. In addition, service training, education, infrastructure, and support systems—although overlapping and in need of better coordination in some areas—are sufficiently large and dissimilar to justify separate administration. So it is not obvious that major efficiencies would result from placing them under a single joint management umbrella.

Military Departments as Integrators

Practical limits on the ability of OSD and joint structures to absorb all service functions may define an enduring place for military departments by default. Moreover, it is not clear that better ways to organize, train, and equip forces can be developed. Would it be preferable to recruit and organize forces around functional specialties or agencies? Probably not. Around geographic or functional combatant commands? Again, the answer is no.

But is there a more positive rationale with which to affirm the role of military departments? The answer here is yes. From a detached perspective, the world of eleven assistant secretaries supervising sixteen defense agencies (plus field activities), and the Chairman’s oversight of nine combatant commands, only accentuates the fact that the military departments are major integrating elements within the DOD organizational structure. That is, they internally balance and integrate combat and support and operations and investment perspectives. They compose differences, make tradeoffs, and execute decisions within a strong administrative chain of command. This argument, of course, potentially leads to four separate service paths on any given issue and does not eliminate the need for defense-wide guidance from OSD and the joint structures. It nevertheless shows that military departments, despite “narrow” service perspectives, still have a broad view when it comes to balancing effectiveness and efficiency across a range of defense activities.

It may be that particular functions are accomplished better or more efficiently if centralized in OSD or the joint system. Certainly this has been a leading rationale for the ongoing migration of support responsibilities away from the services. But this criterion is suboptimizing the overall structure of DOD. Each time a decision is made to consolidate three support activities, the span of control for the Secretary or Chairman increases (sixteen defense agencies and nine combatant commands and counting), the synergism between combat and support activities

C-141s at Rhein-Main during Peace Shield '95.



U.S. Air Force (Greg Suhay)

is weakened, responsibilities are split, and organizational roles and functions are blurred. This undervalues the overall advantage to DOD of having three military departments provide the majority of management and administration for defense resources.

To be clear, the issue is not the “power and influence” of military departments versus other DOD components since all power resides with the Secretary of Defense unless Congress prescribes otherwise. And it is certainly not an issue of “traditional title 10 responsibilities,” since most DOD components have at least some of their responsibilities outlined in that title. Given the

Goldwater-Nichols was intended to build up joint structures, not eliminate the military departments

tension and ambiguities of title 10 and latitude afforded the Secretary to manage DOD, the issue is arriving at a clear understanding of the roles and functions of all components *in relation to each other*.

The expertise and core competencies of military departments are in professional knowledge of their respective warfighting environments, integration of combat and support activities, balanced resource allocation that includes near- and long-term perspectives, and the day-to-day management and administration of complex, large-scale

peacetime activities. DOD needs military departments to fulfill basic missions. It needs the professional expertise of individual services to provide building blocks for joint military capability; and it needs balanced management perspectives (long and short-term, combat and support, et al.) to assist the Secretary in efficient administration.

Goldwater-Nichols was intended to build up joint structures too long dominated by service interests, but it was not meant to eliminate the role of the military departments. It may be time for the pendulum to swing back toward recognizing the importance of the departments—not to undo what has been accomplished or diminish the ongoing commitment to jointness, but rather to ensure that jointness is grounded on a firm foundation of service force providers. This argues for revalidating and reinforcing the role of the military departments as primary line managers of defense resources and a preference for strong, effective service secretaries and chiefs.

Even within current budgetary and operational climates focused on greater efficiency and jointness, it remains important that the Secretary limits the responsibilities assigned to OSD and the joint structures, reaffirms the essential role of the military departments, and takes advantage of the fact that they are likely to remain a large and enduring feature of defense organization.

Civilian and military leaders within each department must also do their part to engage with OSD and joint structures in ways perceived to be constructive and oriented toward solving defense-wide problems. The line between acceptable and welcomed service advocacy and the “turnoff” of service parochialism can be fine. If the services fail to distinguish between the two, they may only encourage previous trends and further devalue their future role. However, with enlightened leadership, and if the role of military departments is not over or undersold, then the services may yet confirm their important role in a well balanced defense organization whose constructive tensions will yield joint operational effectiveness and efficiency. **JFQ**

NOTES

¹ Paul T. Hammond, *Organizing for Defense: The American Military Establishment in the Twentieth Century* (Princeton: Princeton University Press, 1961), p. 374.

² See U.S. Congress, Senate, Committee on Armed Services, *Defense Organization: The Need for Change*, committee print, staff report 99-86, 99th Cong., 1st sess., 1985, chapter 6; and George Watson, Jr., *The Office of the Secretary of the Air Force, 1947-1965* (Washington: Center for Air Force History, 1993), chapter 7.

³ U.S. Congress, House, *Conference Report, Goldwater-Nichols Department of Defense Reorganization Act of 1986*, House report 99-824, 99th Cong., 2d sess., 1986, pp. 144-55.

⁴ See James E. Hewes, *From Root to McNamara: Army Organization and Administration, 1900-1963* (Washington: U.S. Army Center of Military History, 1975); also Hammond, *Organizing for Defense*, pp. 49-63.

⁵ Commission on Roles and Missions of the Armed Forces, *Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces* (Arlington, Va.: 1995), pp. 4-21.

U.S. Army (Moore)



The chiefs at Normandy, 1944: Arnold, King, and Marshall with Eisenhower.



Senator Nunn and colleagues.

Courtesy of Special Collections, NDU Library

Future Trends in Defense Organization

By SAM NUNN

The Pentagon's ability to prepare for and conduct joint operations has improved more in ten years—since passage of the Goldwater-Nichols Act—than in the entire period since the need for jointness was recognized by the creation of the Joint Army-Navy Board in 1903. Over the same decade the Armed Forces moved to a point where the Chairman could maintain in the Autumn-Winter 1994-95 issue

The Honorable Sam Nunn has served four terms in the U.S. Senate and is a former chairman of the Committee on Armed Services.

of *JFQ* that: "No other nation can match our ability to combine forces on the battlefield and fight jointly."

By effectively implementing Goldwater-Nichols, DOD has enormously improved both the conduct of military operations and the management of defense resources. Today's continuing search for organizational improvements in no way detracts from the superb performance of the last decade. In fact, the 1986 legislation and recent successes combine to create opportunities for further enhancements.

The Goldwater-Nichols Act rightly focused on joint military structures—the Joint Chiefs of Staff, Joint Staff,

and unified commands—where significant organizational deficiencies had existed for more than four decades. Some assessments reveal weaknesses on the administrative side of DOD which have been magnified by post-Cold War security challenges. Excessive bureaucracy, slow response to new missions, ambiguous responsibilities among major defense components, and management by policymakers need to be examined. One of these, excessive bureaucracy, also plagues the unified command structure. Externally, organizational shortcomings in the interagency system undermine DOD in carrying out its missions.

Excessive Bureaucracy

The defense bureaucracy is too large. The Pentagon has reduced force levels by approximately 25 percent and defense manpower by 31 percent since the end of the Cold War. The bureaucracy, which was excessive during the Cold War, has not been cut proportionately. The corporate DOD headquarters still employs 30,000, and staffs within 25 miles of the Pentagon total 150,000. The bureaucracy in the Washington metropolitan area has shrunk since 1987, but only by 15 percent.

Excessive bureaucracy is not confined to the Pentagon. A study by the Chairman's office, *The History of the Unified Command Plan, 1946–93*, admits "The end of the Cold War triggered dramatic changes in the U.S. military establishment but not in the

DOD must reduce the overhead in both its administrative and operational chains of command

UCP. . . ." In the early 1990s, the Joint Staff under General Colin Powell considered boldly streamlining the command structure. Resistance to innovative proposals preserved much of what existed. Two changes—creating the U.S. Strategic Command and refocusing and redesignating the U.S. Atlantic Command—were long overdue. The latter's role as joint force integrator, trainer, and provider was just an improved version of Strike Command (1962–71) and Readiness Command (1972–87). Seven years after the fall of the Berlin Wall, DOD remains burdened by a Cold War UCP.

The service component commands of unified commands also need to be reviewed. Several serve as components of more than one unified command, which reduces the problem of excessive bureaucracy somewhat. Nevertheless, their continued existence needs to be reviewed to ascertain if there is not a better way to oversee logistics and other support for operational forces and to provide a service perspective to unified commanders.

DOD must reduce the overhead of numerous duplicative staffs in both its administrative and operational chains of command. Not only do these vast organizations consume talented personnel and scarce funds, they drain the system of energy. This bureaucracy is insufficiently responsive to meet security needs in a more turbulent era. A reduction in the number and size of these headquarters will also free up personnel for combatant forces and help remedy the present unbalanced tooth-to-tail ratio.

Response to New Missions

DOD's reaction to new missions is too slow. This lack of adaptability is rooted in its organizational structure. Each headquarters staff in the Pentagon—the Office of the Secretary of Defense (OSD), Joint Staff, service secretariats, and military staffs—is organized along traditional lines with manpower, intelligence, logistics, and other functional activities. The input nature of defense budget categories reinforces this functional orientation. Although this structure provided needed stability during the Cold War, it does not adjust well to new missions. Peter Drucker's assessment is highly relevant to the Pentagon.

*The functional principle . . . has high stability but little adaptability. It perpetuates and develops technical and functional skills, that is, middle managers, but it resists new ideas and inhibits top-management development and vision.*¹

A dynamic world requires a defense organization that can prepare quickly for a wide range of challenges. *Joint Vision 2010* makes the point that "We will need organizations and processes that are agile enough to exploit emerging technologies and respond to diverse threats and enemy capabilities." But current DOD organizations do not exhibit this characteristic.

The Pentagon's delayed, fractured reaction to counterproliferation reveals this inadequacy. While the President and Secretary repeatedly cited proliferation of weapons of mass destruction as the most serious national security

concern, the operational and administrative sides of DOD took several years to formulate an organizational response to this priority mission.

The Pentagon's and the intelligence community's response to the terrorist threat, as evidenced by the two recent terrorist bombings in Saudi Arabia, were also inadequate.

Ambiguous Responsibilities

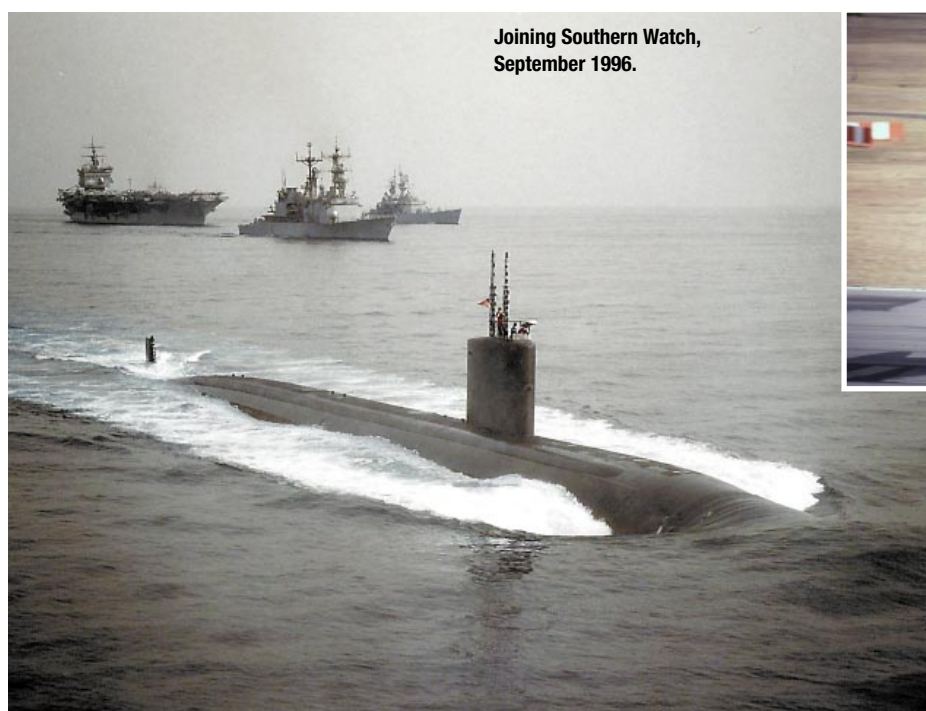
The assignment of administrative responsibilities among OSD, the Joint Staff, and military department staffs is too ambiguous. Too many organizations duplicate the work of others. This major problem has a long history.

Between creating the position of Secretary of Defense under the National Security Act of 1947 and full empowerment of that office by Goldwater-Nichols in 1986, Secretaries were not able to get quality advice and assistance from the JCS system nor to tame the parochial tendencies of the military departments. They thus increasingly assigned tasks to a more responsive OSD. In 1983, Secretary James Schlesinger explained the result in this way: "The growth of [OSD] is a reflection of the weaknesses of the military command system. The Office of the Secretary has provided the analyses cutting across service lines, which the Joint Chiefs cannot now provide."²

Since Goldwater-Nichols has corrected many traditional deficiencies—especially the lack of sound military advice—rationalizing responsibilities among OSD, the Joint Staff, and military departments is both possible and desirable. Deciding how to divide the work will be complicated by the need to consider the roles of defense agencies and functional unified commands which will compete for responsibilities within the Pentagon as well as with each other.

Management by Policymakers

The involvement of defense policymaking staffs in management activities is too extensive. Traditionally, OSD and the Joint Staff focused on policy-level activities. Defense economics and the nature of warfare have led to the creation of numerous defense-wide or joint activities, such as defense agencies, DOD field activities, functional



Joining Southern Watch,
September 1996.



U.S. Air Force (Steve Thurow)

F-16 taking off from
Williamstown, Australia,
during Iron Fist '95.

unified commands, and joint boards and centers. These require management oversight by an organization with defense-wide responsibilities. This has meant that OSD and the Joint Staff have had to pick up these management duties.

The emergence of nontraditional missions has also added to OSD management burdens. The administrative work of new, nontraditional missions (such as counterterrorism, counterdrug, and counterproliferation) does not fit into a single military department. As a result, Secretaries have assigned responsibility to OSD offices for direct management of these activities.

today's security challenges require integrating the activities of many departments and agencies

Diverting policymaking organizations to management duties creates a twofold problem. First, management tasks—which tend to be more visible and urgent—come to dominate organizational activity and the more cerebral

policymaking receives less attention. Second, direct involvement in managing or overseeing an activity makes it difficult for policymakers to maintain their objectivity in recommending policies to govern that activity. They can become special pleaders for activities which they manage. What the Secretary needs is objective advice from his immediate civilian and military staffs, not another assortment of parochial arguments.

Narrow Security Organization

Our organizational concept for national security is too narrow. Today's security challenges require integrating the activities of many departments and agencies, some not traditionally viewed as contributors to national security. But we still retain the formal structure of the National Security Council (NSC) designed for the immediate post-World War II period with its focus on diplomatic, military, and intelligence functions.

A second dimension of our interagency woes is that DOD, especially the Joint Staff, has long held other agencies at arms' length. This tradition had many causes, including concerns over

security leaks, uninformed interference, and raids on defense resources. Such bureaucratic thinking can no longer be afforded. Even a major regional conflict such as Desert Storm required an extensive interagency effort. Lesser operations, where nonmilitary instruments play even larger roles, will rely on effective contributions by civilian departments and agencies. The old days of the Pentagon doing the entire mission are gone for good.

Some elements of DOD recognize this situation. In crises they have cooperated more with their interagency partners. Restore Democracy in Haiti represented the most forward leaning effort to date. As one study observed, "Interagency political-military planning occurred at a higher and more integrated level than in any earlier, similar operation."³ Despite these improvements, Restore Democracy illustrated that interagency coordination in general is rudimentary compared to the need. Moreover, Pentagon efforts have not been institutionalized and are heavily dependent on personalities.

Working backwards through these problems, the first requirement is for the Government to adapt its organization to current national security realities. New members, especially the Attorney General and the Secretaries of the Treasury and Commerce, may need to be formally added to the National Security Council. Designating these Cabinet officers as members may serve to catalyze necessary improvements in their departments' national security capabilities and work practices.

Now It's Time for Goldwater-Nichols II

Ten years ago, Congress mandated a giant change in the defense establishment by passing the Goldwater-Nichols Act. In the ensuing years, significant progress has been made in defense organization. The roles of the Chairman, service chiefs, Joint Staff, and CINCs have evolved into a much more decentralized organization. Greater authority and responsibility have been placed in the hands of the operational commanders. Jointness is now ingrained and not just lip service.

Despite the changes in the defense arena, little change has occurred in the national security medium. The current system is still very centralized and run from Washington. One could argue for a centralized system while we still confronted the Soviet Union. Today, the world's challenges have become more regionalized. The U.S. officials who best understand regional challenges live and work in geographical areas as representatives of their departments and agencies.

It's now time for Goldwater-Nichols II. Such a law would address the decentralization of national security apparatus, placing more responsibility in the hands of "commanders" in the field such as ambassadors and department representatives. This would improve coordination across all segments of government in a given region because the people who best understand local problems could work together in proposing solutions.

Goldwater-Nichols contributed materially to our success in Desert Storm. Further reform has the potential of contributing to regional challenges today and those we will face tomorrow.

—General Edward C. Meyer, USA (Ret.)

Many approaches taken for granted by DOD—such as contingency planning, peacetime exercises, and overseas crisis augmentation teams—are alien to some departments and agencies. The interagency process will continue to experience shortcomings until all contributors to national security are prepared to play their roles.

Turning to internal DOD reorganization, the Secretary should consider assigning elsewhere those direct management tasks currently performed by OSD and the Joint Staff. Defense-wide

the Secretary may need to create a new entity to assume OSD management tasks

and joint activities will continue to grow in size and importance. The Pentagon should act accordingly now and create sound management approaches that can be sustained. In the case of the Joint Staff, ACOM might assume some of its management duties, including most tasks now performed by the Director for Operational Plans and Interoperability (J-7). The Secretary may need to create a new entity to assume OSD management tasks. A more rational approach of managing defense-wide activities combined with refocusing OSD on policymaking would

strengthen Pentagon performance in the long run.

DOD needs to put a priority on developing a new concept for dividing work among OSD, defense agencies, the Joint Staff, military departments, and unified commands. Since its various components have operated ambiguously for decades absent such a concept, the task of formulating an overarching plan will be challenging.

The Secretary of Defense should consider two ways of responding to new missions. First, he could establish

a disinterested staff to scan the horizon for the emergence of new missions and to prepare an organizational approach to handle them. Second, when a new mission does not fall under a pre-existing organization, he could ensure that entities which manage defense-wide activities are capable of rapidly assuming administrative management of it.

Although counterintuitive, DOD can manage better with fewer people. Rationalizing responsibilities among the three major components will aid the search for headquarters staff reductions. The time has also come to merge civilian and military staffs in the military

department headquarters. The advantages would outweigh the disadvantages. The unified command plan also needs review.

The United States struggled for forty-five years to create a defense establishment that could effectively and efficiently prepare for and wage a conflict such as World War II or a possible global clash with the Soviets. Hopefully the Pentagon will not take as long to reorganize for the security challenges of the post-Cold War era, in which organizational adaptability and quickness are major assets. The record of the last decade suggests that DOD will find and implement effective solutions to these problems.

JFQ

NOTES

¹ Peter F. Drucker, "New Templates for Today's Organizations," in *Harvard Business Review on Management* (New York: Harper and Row, 1975), p. 631.

² U.S. Congress, Senate, Committee on Armed Services, *Organization, Structure and Decisionmaking Procedures of the Department of Defense*, hearings before the Committee on Armed Services, 98th Cong., 1st sess., 1983–1984, part 5, p. 188.

³ Margaret Daly Hayes and Gary F. Wheatley, *Interagency and Political-Military Dimensions of Peace Operations: Haiti—A Case Study* (Washington: Institute for National Strategic Studies, National Defense University, 1996), p. 49.

A STRATEGIC ASSESSMENT FOR THE 21st Century

By HANS BINNENDIJK

The international system is entering what might be called the age of complexity. Simple bipolar or multipolar models cannot do justice to events that unfold daily. This age is characterized by several simultaneous global revolutions, including a geostrategic restructuring, an exponential growth in information technology, and a relative decline in the span of control of national governments. One way to understand better the consequences of this emerging and complex international system for U.S. defense and foreign policy is to analyze several crosscutting elements, such as the relationship among the major powers, prospects of war with a regional rogue state, likelihood that conflict in a troubled state will require American intervention, and the new burdens associated with transnational threats. Such an analysis leads to the conclusion that the Nation must be prepared for a broad array of defense missions requiring a full spectrum of military capabilities.

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During the first half of this decade, the major powers have pursued harmonious relations to a degree unparalleled in the 20th century. That happy state of affairs has enhanced U.S. national security, but it may not last into the next century. China's rapidly growing economic might undermines its communist ideology and the legitimacy of its one party system, and its leadership pursues nationalism as a way to bridge the gap. Russia's effort to evolve into a market democracy suffers from transition pains that could still plunge that major power into deeper chaos, with a return to authoritarian rule a distinct possibility. Both countries consider themselves divided nations since significant numbers of their nationals live outside their existing political borders. Important U.S. interests are involved in such places as Taiwan and the Baltic states. In addition, new tensions are developing between China and Japan on the one hand, and Russia and Western Europe on the other. It is unlikely that either China or Russia will emerge in the next 10–15 years as a global peer competitor, but both could become what might be regarded as theater peer competitors—nuclear powers with the capability of challenging important U.S. interests in their respective regions.

Our best prospect for avoiding a serious deterioration in relations among the major powers is to continue to engage China and Russia diplomatically with the goal of bringing both more fully into the family of nations who live by internationally recognized norms. The United States must not make unnecessary enemies by pursuing narrowly-focused policies. We must also continue to preserve and modernize alliances with NATO and Japan. Our strategy ought to be a 21st century version of British policy in the 19th century, that is, to act as the stabilizer of relations among the major powers. Our defense planners must consider more seriously the prospect that

the Nation may confront a theater peer early in the next century. Such a confrontation would likely be limited and on the periphery of the other power, with America's aim being to thwart that power's efforts to forcefully extend control over its neighbors.

Regional rogues such as Iraq and North Korea still present a formidable challenge to U.S. interests, but the prospect that we may need to fight two rogues almost simultaneously appears to be declining. North Korea is near collapse and its military readiness has suffered significantly as a result of floods, famine, and resource constraints. A suicidal attack on South Korea might still be initiated if Pyongyang saw external forces threatening regime survival, a situation made less likely by the nuclear framework agreement. Iraq remains militarily much weaker than prior to Desert Storm, a situation sustained by economic sanctions and international inspectors. Saddam Hussein might be tempted to seize an opportunity to recapture Kuwait if America were engaged in conflict elsewhere, but he must recognize that this time the United States would pursue the conflict until he was eliminated from power. Other regional rogues such as Iran or Libya might provoke military action but such conflicts would probably be limited. Planning our force structure based on threats from Iraq and North Korea may be less necessary in the future than it was in 1993.

For the Armed Forces, troubled states and transnational threats will probably occupy an increasing amount of their time in the future, further complicating existing OPTEMPO problems. The ethnic, tribal, and religious extremism revived by the end of the Cold War gives no indication of abating. Even if U.S. interests are limited, humanitarian motivations fueled by media and public attention are likely to encourage our participation in some of these tragedies. Certain clashes, such as a civil war in Macedonia, would profoundly affect the interests of the NATO alliance.

If problems in troubled states seem apt to continue at the current pace, transnational threats will also probably rise. They result from increasingly porous international borders and decreasing capability of governments to deal with the resulting problems. Terrorism now threatens Americans more directly than in the past, especially members of the military. But dramatic solutions may be difficult. Preemption, for instance, would probably be unilateral, based on sensitive intelligence difficult to publicize, and directed against another sovereign government. International crime still is primarily a police problem unless governments are taken over by criminal elements, as happened in Panama. Under those circumstances, it can quickly become a defense

issue. Dealing with large refugee flows has already involved the Armed Forces in northern Iraq, Haiti, Cuba, Bosnia, and Rwanda. More of these situations should be expected.

This brief survey of the emerging international security environment reveals that the threats which we will face during the next decade will probably be broad in scope. They may include high end threats from a theater peer competitor as well as low end threats from troubled states and transnational crises. They will not be limited to major regional conflicts. They will require a wide range of military options, including forward deployment to provide stability among major powers, credible littoral warfare capabilities to deal with a theater peer, power projection and maneuverable land forces to defeat a rogue state, and forces specifically trained for peace and special operations. Our continued dominance in long-range lift, logistics, intelligence, and C⁴ will also remain crucial. Staying interoperable with allies and potential coalition partners will be more challenging.

The principal concept for dealing with this complexity is agility. The Armed Forces must be able to adjust to situations quickly using novel solutions when necessary. That will also require a high degree of organizational flexibility. But agility does not mean that each element of the force should be designed to perform all missions. In fact, an even higher degree of specialization may be required in some cases to give our military the necessary overall degree of agility. For example, at the high end, some units will have to be reconfigured in order to implement more fully some of the concepts inherent in the revolution in military affairs. At the low end, some forces will be required to provide a greater on-call capability to perform peace operations.

Finally, early in the 21st century the Armed Forces will benefit from the reforms in DOD organization already in place. The broader array of missions we can expect will rely on joint operations. Agility will require the kind of authority which is vested in the Chairmen by Goldwater-Nichols. And greater sensitivity to regional security issues has already been improved by strengthening the role of warfighting CINCs. In short, with some modifications, the U.S. military will be well positioned to meet the challenges of the next century. The only real threat to America's ability to perform this range of missions is the prospect of budgetary cuts that could diminish those crucial capabilities. **JFQ**

This analysis is based on *Strategic Assessment 1997* to be published early next year by the Institute for National Strategic Studies, National Defense University.



21st Century Armed Forces—

U.S. Air Force (Marvin Lynchard)



Joint Vision 2010

By CHARLES D. LINK

U.S. Air Force (Debbie Hernandez)

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The report of the Commission on Roles and Missions of the Armed Forces (CORM) which appeared in 1995 revealed a subtle deficiency in the implementation of the Goldwater-Nichols Act. Under what can be viewed as a bicameral defense process, near-term visions developed by unified commands about longer-term service concepts. CINC visions reflect diverse regional interests and service visions indicate the particular mediums in which they specialize. Although this has enabled us to better understand the core competencies of each service as well as the regional insights of the warfighting CINCs, it has also led to tension and wasted effort. Sensing the need to integrate both types of vision, CORM recommended that the Chairman articulate a unifying vision. The resulting document, developed in close consultation with the Joint Chiefs and CINCs, is *Joint Vision 2010*.

the services are difficult to defend against in their diversity and mighty in the aggregate

The template in *JV 2010* “provides a common direction for our services in developing their unique capabilities.” The Air Force fully embraces the document for three overarching reasons. First, as an integrating vehicle it releases tremendous

energy once dedicated to competing visions with little return. Second, it frees the services from legacy thinking that, for example, constrained the airpower contribution to joint warfighting. For decades the Air Force consumed a lot of energy perfecting auxiliary roles, fine-tuning capabilities which proved extremely useful in the Gulf War. At the same time that conflict emphasized the potential of airpower to more directly and effectively achieve joint objectives. The advantages of the world’s leading aerospace nation can be employed to their full capacity within the framework provided by *JV 2010*.

The third reason that airmen embraced this document is because it leans toward the future. In the dynamic world that is unfolding in the wake of the Cold War the only reality is uncertainty. We cannot exactly predict future crises, but *JV 2010* prepares us for them by describing the

global security environment and fine-tuning our forces for the range of challenges we may face. The lack of Cold War confrontation has increased sensitivity to costs, casualties, public opinion, and media scrutiny. More will be expected of the Armed Forces than in the past. *JV 2010* responds to these challenges with this concept: fight with every available advantage.

The vision of military excellence found in *JV 2010* promises to play a key role in national security. If we supposed that the United States had a fifteen-year lead in military development over any potential adversary, we might choose to invest so that in fifteen years we can acquit ourselves well in a conflict with a peer competitor. But instead, *JV 2010* lays a foundation for investing in ways to keep the prospect of actually fighting a peer competitor fifteen years off.

Unifying Constructs

As the Chairman states in its preface, *JV 2010* “provides an operationally based template for the evolution of the Armed Forces for a challenging and uncertain future.” It therefore builds on proven military concepts. But unlike earlier frameworks, it explains ways in which joint forces interlock with, strengthen, and benefit each other.

Our bedrock strength as a fighting force is core service competencies—reflecting distinctive capabilities, cultures, and traditions—that offer a broad range of options to the National Command Authorities. As the services bring their unique styles of warfighting and problem solving to battle, they are difficult to defend against in their diversity and mighty in the aggregate.

Each service is responsible for developing competencies to prevail in its medium, training to common standards, and presenting its role to the Nation. The joint force commander fits these assets into a cohesive warfighting team, fueled by professional pride, operating with joint doctrine, and trained for a common purpose. *JV 2010* provides a conceptual underpinning for assembling service core competencies to conduct fully joint military operations.

Operational Vision

On the level of joint force, *JV 2010* delineates four operational tasks: dominant maneuver, precision engagement, full-dimensional protection, and focused logistics—enabled by information superiority.

Information superiority is the ability to collect, process, and disseminate an uninterrupted flow of information while denying an enemy from doing the same. Air and space based platforms such as the airborne warning and control system



U.S. Air Force

C-17 Globemaster III.



U.S. Air Force (Mike Reinhardt)

AWACS.

(AWACS), joint surveillance and target attack radar system (JSTARS), Rivet Joint, and advanced unmanned autonomous vehicles (UAVs) exploit elevation to provide theater-wide surveillance, reconnaissance, and C³ advantages. Joint force commanders gain edges in information by shielding and moving friendly information assets and applying combat power to destroy, neutralize, disable, or disrupt an enemy's means of gaining information and controlling forces. Information superiority can turn an adversary's "fog of war" into a wall of ignorance.

Dominant maneuver seeks to control the depth, breadth, and height of battlespace and the tempo of operations by positioning capabilities

for a decisive advantage. Airpower creates leverage by controlling battlespace and threatening attacks on what an enemy values wherever it is located. Air and space assets can find hostile strengths and weaknesses over the entire theater and, once specific vulnerabilities are identified, avoid strongpoints, apply power with surgical lethality, and take away enemy sanctuaries—the essence of dominant maneuver. Air superiority is a prerequisite to making the full array of dominant maneuver possibilities available to the joint force commander. With air dominance every part of our force has greater value. In the Gulf War it protected all the components and made coalition forces impossible to defend against.

Precision engagement is the most militarily distinctive capability each service brings to joint operations. Joint force commanders strive to apply combat power in ways that maximize friendly force strengths, reduce vulnerabilities, and accomplish the mission. Air forces, for example, use precision engagement throughout theater airspace

and in an enemy nation against war sustaining capabilities, air forces, and surface forces. Precision engagement and information superiority are enabling factors for dominant maneuver. In fact, precision engagement is its “kill mechanism.”

Full-dimensional protection. The aim of full-dimensional protection is battlespace control so our

dominating the air is pivotal because it protects all forces and enables all operations

forces are not just protected but control the environment and initiative in all operations. It guards our information, maneuver, forces, and logistics. Air and space assets

protect our airspace and forces from enemy engagement and maneuver capabilities, providing not only freedom *from* attack but also freedom *to* attack. Full-dimensional protection is key to dominant maneuver and precision engagement. It is also essential to the information and logistics advantages upon which tomorrow’s joint force will depend.

Dominant maneuver, precision engagement, and full-dimensional protection form a trinity of combat power that will realize the ideal of full spectrum dominance presented in *JV 2010* if enabled by information superiority and focused logistics. Individually, new warfighting concepts provide the means to discriminately apply deterrent, coercive, or destructive power against enemy centers of gravity. When integrated, the total result greatly exceeds the sum of the parts.

Each element of *JV 2010* is necessary, but our warfighting concept does not stand alone. It requires excellent component forces. It requires resources. And its operational vision clearly relies on friendly control of the air. Dominating the air is pivotal in modern warfare missions because it protects all forces and enables all operations. In the Gulf War it shielded all of the components and made it impossible to defend against coalition forces.

Joint Vision 2010

JV 2010 provides 21st century forces guided by 21st century thinking. The payoff will be 21st century security. In an era of unparalleled change—with simultaneous exponential advances in many fields—this may seem a tremendous challenge. *JV 2010* meets it by providing dynamic options for uncertain times, underpinning a revised “American way of war.”

Modern airpower attuned to *JV 2010* will be better suited than in the past to directly pursue political-military objectives. First, it can contribute to deterrence and, if that fails, it can reduce or eliminate an enemy’s ability to achieve its war aims, as the Gulf War displayed. It will also attack selected enemy capabilities and either reduce or eliminate the ability of an enemy to resist our policy objectives, as Deliberate Force in Bosnia illustrated. The speed, reach, perspective, and freedom of action of aerospace forces can create extraordinary advantages for surface elements even as they proceed to a crisis area. And once they arrive, airpower can greatly magnify their combat power.

This is not to say that airpower can do everything, will be sufficient, or will always provide the most appropriate force. Rather, it is proper to study every military capability and limitation in the light of our unifying concept. It is important for military professionals to clarify what they bring to a joint force commander’s table. Understanding each advantage our forces possess allows us to leverage each one to win at the least human, fiscal, and political cost.

Sophisticated understanding helps avoid fighting at a disadvantage. The Armed Forces are superbly trained and equipped. We are disadvantaged when fighting on equal terms. An enemy will



U.S. Air Force (Dixie Travick)

F-16C taking off from Aviano Air Base, Italy.

Focused logistics will reduce reliance on stockpiles, prepositioning, redundant logistics infrastructure, and cumbersome support systems. The goal is to create an environment in which you never run out of logistics. It is designed to eliminate the “iron mountain” associated with past operations, thus reducing the tooth-to-tail ratio. The Air Force has been developing practices that support focused logistics since 1994 through advances in lean logistics, total asset visibility, and better use of commercial services and advanced airlifters like the C-17. Focused logistics puts the agility and responsiveness of our global mobility forces to full use.

seize any asymmetry in its favor. We are wise to continue investing in forces that are useful, capable, and difficult or impossible to counter. Aerospace forces offer tremendous resistance to counters because, with global reach and unceasing speed, they inherently retain the advantages of the initiative. They can also defeat highly concentrated defenses by avoiding them, and if areas are uniformly defended they incur no increased penalty when attacking the most important targets.

The capability of modern aerospace forces that makes them resistant to defensive measures is stealth. Signature reduction diminishes the effectiveness of acquisition, tracking, guidance, and intercept systems all at the same time. Stealth further capitalizes on all the advantages inherent in aerospace systems. Our aerospace industrial base provides us with the means to counter a nation that concentrates its strength in either land or naval forces. Our aerospace forces in turn magnify the combat power and value of our land and naval forces.

From the Past . . . the Future

Our forebears in the profession of arms elected time and again to use technology to reduce risks to their forces. In search of attainable advantages, they advanced metallurgy, chemistry, and physics to improve artillery. Before Henry Ford's assembly line they pioneered mass production, standardization, and

JV 2010 is a watershed because it helps our thinking to catch up with our capabilities

interchangeable parts. A unique aspect of our heritage is ingenuity. People in a land of freedom and opportunity have initiative and open markets yield incentives. Accordingly, American inventiveness has stunned the world for more than two centuries. One result is the great technical versatility found in our Armed Forces.

As complicated as technology has become, ideas on warfighting can be just as challenging. The leading military thinker of the 18th century, Frederick the Great, remarked that "the lifetime of one man is not enough to enable him to acquire perfect knowledge and experience in the art of war." Of course military systems of the 21st century will be more complex than any envisioned by Frederick or Napoleon. *JV 2010* is a watershed because it helps our thinking to catch up with our capabilities while simultaneously advancing them which will enable us to secure the future beyond the confines of outmoded concepts.

JV 2010 recognizes that all warfighting capabilities brought to bear in joint operations are crafted by the services. In fulfilling their responsibilities, each of the services seeks excellence in what the vision identifies as six critical elements: people, leadership, doctrine, materiel, organizational structure, and education and training. The services prepare component forces for superior mission performance in unified operations.

This document provides a mechanism for focusing the strengths of the individual services on operational concepts to achieve full spectrum dominance. Equally important, it iterates the fact that "we will always rely on . . . America's men and women to ensure we are persuasive in peace, decisive in war, and preeminent in any form of conflict."

The six critical elements of *JV 2010* are vital to service responsibilities—the areas in which we strive for excellence. The five operational tasks offer a framework for tremendous warfighting effectiveness in a style befitting American values and interests. One could study the document to see if it confirms what has always been done and stop there. It will make a greater contribution as we use it to discover all we can do.

Regardless of background, military professionals will find *JV 2010* appealing since it helps them meet their responsibility to the Nation. Today's potential for asymmetric advantage provides military leaders unprecedented capabilities to secure victory with minimum cost. *JV 2010* outlines how we can raise that standard higher still. Its timing is especially propitious for the Air Force, which is conducting service-wide, long-range planning focused on 2025. Implementing *JV 2010* will provide valuable direction and insights to ensure those efforts produce the best results.

As Abraham Lincoln said, new conditions require us to "disenthral ourselves." The gift of *Joint Vision 2010* is that it provides a contextual framework to harness the energies of the creative and diverse American military community to build a surer, better future. **JFQ**



Donning protective gear during Desert Storm.

U.S. Army

THE IMPACT OF **NBC Proliferation** on Doctrine and Operations

By ROBERT G. JOSEPH

[Editor's Note: *From October 1994 to September 1995, the Center for Counterproliferation Research at the National Defense University held a series of workshops to examine how service doctrine, operational concepts, and capabilities take into account the threat from the proliferation of nuclear, biological, and chemical weapons (NBC). The workshops represented the first time that the majority of constituencies in the defense establishment that are responsible for evaluating and designing military responses to proliferation were assembled. Collectively, the workshop series involved more than four hundred participants drawn primarily from the services but also included members of policy,*

on balance, our words on countering the NBC threat have been stronger than our deeds

intelligence, research and development, and other organizations. Perhaps most unique, the workshops included broad participation from planners, operators, and trainers from all the services. Although the workshop recommendations, detailed in a number of reports, covered several broad areas—national military strategy, defense policy, and military capabilities—the central purpose of the series was to enlighten the operational context. Presentations, discussions, and gaming focused on service capabilities for joint and coalition warfare in NBC environments. This article presents those findings that are most germane to the further development of joint and service NBC doctrine.]

NBC proliferation is recognized as a serious threat across the operational spectrum—from the deployment of forces to post-hostility activities. References to NBC—frequently aggregated under the rubric of weapons of mass destruction (WMD)—appear often in policy and capstone statements such as the national military strategy and *Joint Vision 2010*.

At present NBC is also mentioned in service doctrine (for example, Army Field Manual 100-5 and Air Force Manual 1-1) as well as in more technical manuals on detection, decontamination, individual protection, and biological warfare/chemical warfare (BW/CW) shipboard defense. Aspects of the NBC threat are also the focus of joint doctrine publications, foremost among them Joint Pub 3-11, *Joint Doctrine for Nuclear, Biological, and Chemical (NBC) Defense*, which provides a general overview of NBC defense operations.

Furthermore, counterproliferation is being embedded in the planning process, as evidenced by the missions and functions study completed by the

Joint Staff in spring 1996. In addition, the geographic CINCs have been charged with implementing counterproliferation policy in their areas of responsibility. They are in the process of developing counterproliferation contingency plans to define how they intend to conduct counterproliferation operations. The Joint Staff is also working with the CINCs to assist them in identifying and developing those capabilities which they will need to accomplish their counterproliferation objectives.

As a framework for military counterproliferation operations takes shape, the Joint Staff and services are focusing on the doctrine, operational concepts, and training to better prepare our forces for operations in an NBC environment. Furthermore, on the policy level, the recent establishment of the Counterproliferation Council chaired by the Deputy Secretary of Defense illustrates high level interest in the NBC threat and the commitment to respond to that threat.

The above responses begin to address many deficiencies identified in the workshop series. Overall, the findings suggest that the response to the threat has been uneven. There are pockets of strength, such as procurement of passive defense capabilities at the individual level. There are also more recent areas of progress, mostly programmatic and focused on technology solutions, such as developing light-weight suits and improving our detection capabilities. But on balance, our words on countering the NBC threat have been stronger than our deeds.

The workshops surfaced a number of weaknesses in the areas of doctrine, force structure, training, and education. Identifying these weaknesses and recommending improvements were the main focus of this work. In that context, it should be noted that weaknesses do not mean that the joint community and services have failed to address the challenge. No one should expect them to have resolved all of the difficult problems associated with this complex and growing threat. That said, solutions will be found only when existing vulnerabilities are acknowledged and the Armed Forces begin to think comprehensively about how to overcome them.

Doctrine

For purposes of the workshop series, *doctrine* was defined as how we think about the conduct of war and the principles for conducting operations. The definition found in Joint Pub 1, fundamental principles that guide the employment of forces in support of national objectives, is entirely consistent with this working definition.

One deficiency common to service doctrine is the failure to understand how an enemy may employ NBC against us. Lacking such knowledge, doctrine is silent on this point; hence, concepts of

Chemical attack exercise at Camp LeJeune.



U.S. Marine Corps (C.D. Clark)



Decontaminating F-15 during exercise.

U.S. Air Force

enemy NBC use are absent from the relevant documents and operational publications mentioned earlier.

In general, NBC concerns are confined either to very broad statements about the threat and need to plan against “weapons of mass destruction” or to detailed technical data on how to put on mission oriented protective posture (MOPP) gear and wash down contaminated ships. Between these extremes—doctrine, tactics, techniques, and procedures (TTP) for combat in various scenarios—there exists a relatively blank page on which we must focus our attention.

Only by embedding enemy use concepts in doctrine can the Armed Forces develop courses of action above the individual and small unit level to counter the NBC threat to U.S. forces. More specifically, because doctrine does not take into account enemy NBC employment concepts, we also lack TTP needed to overcome key vulnerabilities identified by operators and planners. These vulnerabilities include protection of facilities such as ports and prepositioning depots, large groups of personnel, and essential equipment and supplies; decontamination capabilities for large areas and sensitive materiel such as airfields and aircraft; and handling contaminated casualties and cargoes. Moreover, without such concepts,

we miss an opportunity to take advantage of the vulnerabilities in an enemy’s NBC posture.

Adversary employment concepts for conventional conflict are recognized as essential for the development of service and joint doctrine and operating principles for conventional defensive as well as offensive operations. Concepts of enemy conventional operations are fully embedded in doctrine, force development, and training. Failure to develop and embed similar concepts relating to NBC may expose forces in the field and fleet to risks that could have been mitigated had likely employment concepts been understood and corrective action taken.

Force Structure

A number of workshop participants emphasized the need to remedy identified shortfalls in force structure, especially for forces that would be called on for crisis response. Some questioned whether sufficient mobile detection vehicles were being acquired. Similar questions were raised about the biological integrated detection system (BIDS), and specifically its emerging employment concept which emphasizes forward deployment of scarce assets. Others questioned the planned level of on-hand stocks of MOPP gear in light of the requirement for possible suit changeouts every other day for forces and critical civilians needed to prosecute an operation abroad in a BW or CW environment.

Chemical Biological International Reaction Force (CBIRF) washing down M-93 FOX.



U.S. Marine Corps (C.D. Clark)

Participants also stressed the risks associated with the current heavy reliance on Reserve NBC defense units, again as with BIDS, particularly in contingencies such as Desert Shield that do not have the luxury of a buildup period. This would be especially true if the adversary were to use NBC early to deter the United States from intervening by posing the prospect of high casualties.

Finally, some participants questioned the organizational designs of service NBC-related units. For instance, in the Army (which has the preponderance of these units) the design of division level chemical companies appears to be incompatible with current responsibilities (such as smoke generation and NBC decontamination) which may be required simultaneously under foreseeable operational circumstances. In high tempo combat, commanders may be forced to limit the use of smoke as a battlefield obscurant to enhance force protection in favor of time-urgent decontamination. Because there are few of these specialized units in the force structure, commanders may be faced with an unacceptable dilemma. A similar circumstance may occur with Air Force civil engineering units assigned both base maintenance and aircraft and base decontamination missions. The question is not whether units need to be dual tasked but whether the current assignment of tasks, based on the Cold War model of conflict in Europe, is the most rational for regional NBC contingencies, and whether

these units have been properly prepared for their secondary NBC defense roles.

In this context, one related point that came up repeatedly was the assertion by Air Force representatives that the Army was responsible for decontamination of large areas, such as air bases. Army participants consistently responded that they had neither the mission nor the capability.

Training

Perhaps the most critical requirement for deterring NBC use, and for successful operations should deterrence fail, are forces fully trained across the NBC threat spectrum. Training converts theory into practice by preparing forces to accomplish their mission in an operational environment. While recognizing a number of improvements that have been made in establishing training standards and programs to enhance NBC readiness, such as training NBC defense experts from all services at Fort McClellan, this is an area of particular weakness.

Throughout the workshops the planners, operators, and even trainers themselves cited shortfalls in their own individual and unit training experiences. Most of those cited have been previously documented, such as in the DOD annual NBC warfare defense report to Congress and

by the General Accounting Office. These deficiencies deal with inadequacies in such basic but central areas as the inability to handle CW and BW casualties, improper wearing of masks, and the inability to operate detection equipment. Such inadequacies—which reflect the current concentration of training on individual protection and specialized units—are the subject for corrective action.



Evacuating exercise "victims".

U.S. Marine Corps (C.D. Clark)

training guidance is inadequate for producing the proficiency needed to operate in regional NBC environments

However, participants identified other key training shortfalls. At present, primary service guidance on NBC attempts to ensure that personnel maintain their proficiency in taking individual protective measures like donning protective garb. Specialized NBC defense units have adequate guidance to perform their unique technical functions such as decontamination. However, there is inadequate guidance within the services or from operational chains of command that defines tasks, conditions, or standards for more complex NBC activities such as operational planning to minimize the potential effects of enemy NBC use. Even at highly instrumented Army combat training centers (CTCs) there are not adequate models or templates to train soldiers against likely enemy NBC use in future conflicts. The commanders of units undergoing training essentially determine the scope and nature of NBC play, if any, to be included in the scenarios by CTC controllers and opposing forces.

During the workshops service representatives candidly discussed difficulties encountered in training for operations in NBC environments

under current threat conditions. Training guidance within the services and combatant commands is inadequate for producing the proficiency needed to operate in regional NBC environments. Notably absent is useful staff training for developing combat campaigns and courses of action for operations involving an NBC-armed enemy.

All services need more realistic NBC events incorporated into individual, unit, and staff training. Current simulations, which form the basis of much individual and unit training, do not realistically depict potential NBC use in likely combat and non-combat contingencies. There was consensus that existing models and simulations inadequately portray the types of environments that could result from the NBC proliferation threat and, specifically, that its impact on land, sea, and air operations—as well as civilian populations—is routinely understated in wargames. One reason is that current models are not capable of providing essential information about CW and, especially, BW effects. In workshop games, red players saw NBC capabilities as important weapons to assail U.S. vulnerabilities and to reduce the significance of U.S. conventional technological superiority. The same players, when cast in the role of blue planners, consistently minimized the difficulties of operations in NBC environments.

Many participants also noted that there has been insufficient NBC play in joint and combined exercises. While measures are being undertaken to enhance joint training, little progress has been made in exercising with potential coalition partners. Yet coalition operations will likely be the norm for regional conflict. It is clear that, despite the deficiencies of U.S. forces in the NBC area, they are relatively better equipped and trained to operate in NBC environments than the forces of many if not all allies and potential coalition members. Therefore, combined exercises and training could provide a useful foundation for operations in the event of an actual conflict. It is essential to work in advance with allies in the region to ensure cooperation when hostilities begin.

On a more anecdotal basis, discussions in the workshops pointed to the potentially harmful effects of current NBC training practices. For example, most Army participants affirmed that they had trained for CW events. As the conversation developed, however, it became clear that the CW uses against which they trained were almost always limited and discrete events in a broader exercise. In almost every experience, U.S. forces were able to go around or through such use with little effect on operational tempo. Two explanations were given for why the play was structured in this

fashion: first, the chemical event could not be allowed to derail the larger exercise, and second, the commanders who believed they would be graded on the overall results of the exercise could not let the CW play affect the outcome.

If these observations reflect widespread practice, one must ask whether such experiences do more harm than good if they lead to a false sense of complacency that a clever enemy could exploit.

Education

A consensus of workshop participants from all services indicated that professional military education (PME) will be key to overcoming the NBC challenge in the long run. Put simply, in a proliferated world involving regional conflict, future leaders must think differently about deterrence and defense. Senior service colleges have

made notable progress in designing advanced courses on proliferation and counterproliferation. They reach only a small fraction of students, however. Most important, core curricula at these institutions require added emphasis on the political-military and operational implications of the NBC threat. At the intermediate and precommissioning levels, where student exposure to NBC issues is cursory at best, even more must be done.

To strengthen PME, the Counterproliferation Center at the National Defense University has designed a counterproliferation awareness game—in which players act as both red and blue team members on the operational level—that was used for the first time in April 1996 by the National War College. Other senior service colleges have expressed interest in adopting the game. This tool will also help inform us about enemy use concepts and, in turn, assist in developing doctrine.

advanced courses on proliferation and counterproliferation reach only a small fraction of students

NBC Challenges

Taken together, the workshop findings suggested a clear bottom line from which obvious challenges emerge. The first is to better know the enemy. Here, we need to think differently about intelligence requirements and tailor assets to the operational needs of the supporting services and combatant commands, placing more emphasis on enemy NBC operational concepts, employment doctrines, and capabilities. At the same time, it is essential to recognize that, although important, better intelligence alone is not sufficient.

Another promising tool is the creation of dedicated NBC red teams with the authority to challenge conventional thinking—both in terms of enemy use and U.S. responses. It is especially useful to have in place a disciplined process with dedicated professionals for critically examining alternative courses of action and capabilities. This tool can be applied by operators, planners, and trainers across a broad spectrum of activities, from identifying critical intelligence and counterforce capabilities for early deployment to planning for civil-military emergency response cooperation in contingency theaters of operation.

In the near term, interactive gaming can also be effective. Forcing U.S. planners and operators to think like the adversary is invaluable. The process can generate insights about issues that military planners and operators could face when confronting an NBC-armed opponent.

Finally, we need to think about NBC differently than we did in the East/West context. Today the likelihood that NBC will be used against us is much greater. A number of factors explain this. In the bipolar Cold War context, regional states were less free to pursue their own aggressive political, ideological, and in some cases religious objectives through the use of force. The current lack of discipline is compounded by the fact that proliferation

Biological Weapons Effects: What We Know				
LEVELS \ TYPES	"Real World" Data	Exercise Data	Experimental Data	Studies, Models, Simulations
People	●	●	●	●
Small Units	●	●	●	●
Divisions and Above	●	●	●	●
"Systems" (ports, airfields, etc.)	●	●	●	●
Civilian Populations	●	●	●	●

Chemical Weapons Effects: What We Know				
LEVELS \ TYPES	"Real World" Data	Exercise Data	Experimental Data	Studies, Models, Simulations
People	●	●	●	●
Small Units	●	●	●	●
Divisions and Above	●	●	●	●
"Systems" (ports, airfields, etc.)	●	●	●	●
Civilian Populations	●	●	●	●

● Little or no reliable information ● Incomplete or nonconclusive information ● Generally good information/accepted as reliable

is occurring in regions of vital interest to the United States, regions in which we have security commitments and forward-based forces.

In addition, within a regional context, the prospects for traditional deterrence succeeding—



U.S. Marine Corps (C.D. Clark)

Treating “casualty” under NBC exercise threat.

that is deterrence based on retaliation and punishment alone—are problematic and in fact are more likely to fail for several reasons: the absence of such conditions as mutual understandings and effective communications, the risk-prone strategic personalities of regional adversaries we are likely to confront, and the asymmetric nature of deterrence in a regional contingency where U.S. survival is not at risk but the enemy likely sees his own at stake, or at least that of his regime. This could prompt him to use NBC with little concern about the consequences.

Perhaps most significant is that the employment concepts of regional adversaries are also likely to be much different than those assumed about adversaries in the past. In this context, NBC capabilities are seen as weapons of the weak against the strong, as the only arms that can overcome the conventional superiority of the West. They are not seen as weapons of last resort, but rather weapons of choice to be threatened or used early in a conflict for political and psychological as well as military purposes. For this reason, understanding enemy concepts of use is central to the U.S. response to proliferation.

The second challenge is to better know ourselves. We will not have fully met it until we understand the effects of BW/CW on operations involving U.S. and coalition forces and develop appropriate concepts of operations based on solid

doctrine. A survey of existing data by the center indicates several major gaps in our knowledge base, such as effects of BW and CW use on units above the battalion level, on key nodes such as ports, and on civilian populations.

The accompanying illustrations (shown on the previous page) provide an overview of some of those weaknesses. The green symbols indicate that we have generally good data on the effects of CW on individual soldiers. This applies particularly to physically fit males because relatively little information exists on women. The red symbols tell us where we have very little or no reliable information about the effects of BW and CW, for example, on large unit operations.

The third challenge is to fully train and educate the force. Several suggestions have been covered earlier, from developing standards for larger units and complex tasks, to creating more realistic models for games and simulations, to the extensive use of red teams.

The fourth and final challenge is to design and equip forces to meet the new realities of the NBC threat. Key to this effort is integrating materiel and non-materiel initiatives. Since 1994, the U.S. Government has issued a Counterproliferation Review Committee report with details on the required technology initiatives, but non-materiel initiatives remain scattered. Not until a companion volume on non-materiel initiatives is prepared, and comprehensive doctrine developed, will there be essential guidance for defining the way we equip, train, and fight in an NBC conflict. **JFQ**



Knowledge-Based Warfare:

A Security Strategy for the Next Century

By LAWRENCE E. CASPER, IRVING L. HALTER,
EARL W. POWERS, PAUL J. SELVA,
THOMAS W. STEFFENS, and T. LAMAR WILLIS

Supporting a *National Security Strategy of Engagement and Enlargement* requires that we have robust and versatile forces that can, in the words of the Bottom-Up Review (BUR), “credibly deter and, if required, decisively defeat aggression . . . by projecting and sustaining U.S. power in two nearly simultaneous major regional conflicts (MRCs).”¹ This presents the dilemma of how to sustain the BUR-required capability in the

near term while recapitalizing forces for the future in an era of fixed or declining resources and rapidly changing technology. The situation is exacerbated by continuing commitments to operations other than war. In addition to consuming recapitalization resources, such operations test a hedge strategy which is implicit in preparing for major regional conflicts through a pattern of force employment in other types of conflicts.

Official and independent studies reveal a mismatch between the size of the BUR force and projected funding levels to recapitalize the Armed Forces for the next century. The \$242.6 billion authorization for FY97 continues the ten-year trend

Colonel Lawrence E. Casper, USA, Colonel Irving L. Halter, USAF, Colonel Earl W. Powers, USMC, Lieutenant Colonel Paul J. Selva, USAF, Rear Admiral Thomas W. Steffens, USN, and Captain T. LaMar Willis, USN, comprised the first Secretary of Defense Strategic Studies Group.

in reduced procurement, a 70 percent decline, and an overall budget reduction of 45 percent.² Gone is the Cold War strategy that so readily lent itself to quantitative, comparative determinations of force requirements. However, we extended the threat based BUR approach to strategy despite a growing suspicion that operations other than war—such as dealing with regional instability, revolution, or

KBW enables us to leverage battlespace to achieve effects through precision employment of combat power

ethnic strife; proliferation of weapons of mass destruction; or future threats from information technologies or non-governmental actors or organizations—will be our most likely security challenges.

It is questionable whether anything as large as a traditionally sized corps may indeed be deployed to meet them.

At the same time advances in information age technology have inspired speculation on how these capabilities can be combined with process and organizational change to create a fundamental metamorphosis in the conduct of war, namely, a revolution in military affairs (RMA). Information technologies and processes, when synthesized by operational art and new organizational concepts, present an opportunity for discontinuous change—a great leap in warfighting—from the industrial to information age. The solution to the near-term security dilemma may be to take

advantage of the emerging RMA to harness information age technologies and processes to create a force which is able to respond in an uncertain security environment within the DOD budget.

Accomplishing this goal calls for a strategic vision shared by industry and government, and particularly among the services. This is essential for the services to develop a common warfighting philosophy and doctrine and to guide the process and organizational changes needed to create more capable and efficient forces. It is also required as a unifying concept to guide service investment in research, development, and acquisition. It would provide a coherent basis for building a plan that rationalizes defense spending, reducing stovepipe development and duplicative acquisition among the services. Knowledge-based warfare (KBW) is such a strategic vision.

The Strategic Vision

KBW is a process that provides superior situation awareness of the battlespace, allowing us to decide at a faster pace than an enemy. It enables us to leverage our battlespace knowledge to achieve discrete effects through precision employment of combat power. What differentiates KBW from other warfare is the synergism of combining advanced sensors, information technology, and analytic tools to process the information. This allows commanders to view shared information in the context of their battlespace, apply experience and judgment, and transform the information into battlespace knowledge. A capacity to collect data,

USS Shiloh, Operation Desert Strike.



U.S. Navy

process it into useful information, and place it in a battlespace context allows forces to achieve information superiority. It has been an abiding goal of commanders and decisionmakers—to know better in order to act faster and more shrewdly than an enemy and thus to be constantly ready. Now it may be possible. Leveraging knowledge can allow us to essentially operate in an adversary's decision cycle. Commanders can achieve discrete effects—disrupting power grids or denying communications links—instead of inflicting widespread damage. This strategy leverages information superiority to sustain strategic advantage.

In 15 to 20 years on the tactical and operational levels our forces will be able to focus less on destructive measures of attrition based, force on force warfare and more on various effects that include, but are not limited to, physical destruction on the battlefield as part of a planned strategy. On the strategic level, this information superiority could be used to orchestrate effects to achieve outcomes outlined in the commander's intent or campaign plans. The proactive use of information superiority opens a new vista of indirect measures for achieving political outcomes. Taking action early allows more options that are “nonlethal” and possibly even transparent to the target audience.

Process

KBW depends on collection and analysis of information. An integrated command, control, communications, computer, intelligence, surveillance, and reconnaissance (C⁴ISR) system affords

a dynamic, distributed planning and information network that supports the decisionmaker, planner, and analyst as well as the commander and individual soldiers in the field. The conceptual process of KBW involves the following:

- Data, the raw input of our knowledge building process, is derived from space based, sea based, airborne, and unattended ground sensor systems, as well as electronic intelligence, measurement and signature intelligence, signals intelligence, human intelligence, and open sources. This data is the basis for creating information, adding to our knowledge base in the worldwide database of systems, and ultimately battlefield decisions.

- Taking advantage of our rapidly expanding computer processing power, analysts at combat information analysis centers such as the Defense Nuclear Agency (DNA) use dynamic modeling and simulation to put data into context for the warrior, producing decisionable information. These same tools enable warriors to conduct systemic, effects based planning.

- Decisionable information, a key product of this process, is information delivered to the right person at the right time in a usable format. It allows leaders to choose actions or effects to achieve desired outcomes.

- Forces, equipped with a variety of weapons and constituted to respond to a given set of missions, can focus on executing operations with a clear understanding of how their actions will help achieve a battlefield effect and support an associated strategic outcome.



Tomahawk missile launch.

U.S. Navy

U.S. Navy

Secretary of Defense Strategic Studies Group

In 1995 the Secretary of Defense formed the strategic studies group (SSG) to be comprised of one or two officers from each service who are selected to focus on strategic management issues for ten months. The officers assigned to this group must have demonstrated high flag or general officer potential; they receive senior service college and joint PME credit for their participation.

The first group was tasked "to investigate the opportunities and requirements generated by a full adoption of a precision strike regime and to develop a strategy for implementing the transition to such a regime." The results of that effort are found in the accompanying article on knowledge-based warfare which is derived from a report and briefing prepared by the six members of SSG I. Their findings were presented earlier this year to the Secretary, Chairman, and other senior civilian and military leaders.

- To assess the result of measures and ensure the validity of desired effects relative to strategic outcomes in a dynamic environment, constant monitoring and feedback are required, relying on the sensors or collectors that support a dynamic, adaptive process of conducting warfare.

- What makes all this possible is a robust C⁴ system coupled with an accurate and high fidelity intelligence, surveillance, and reconnaissance system—C⁴ISR.

What's New?

If Sun Tzu were asked what is novel about KBW, he might knowingly say "not much," but

in fact there are differences. KBW puts the development of an integrated command and control architecture first, followed by weapon systems designed to operate within the C²

framework. This reverses the trend of producing advanced weapons with no consideration for the C² architecture to employ them. A case in point is the initial deployment of the Tomahawk cruise missile to the fleet without provisions for the C² requirements of regional CINCs.

Similarly, adopting KBW provides a construct for driving technological development and focus for research and development investment. This contrasts with the current process by which industry brings technology to the services in search of an application. Technology today propels the development of doctrine and operational concepts, frequently resulting in an appliqué of new technology on old processes and hardware. KBW initiates technology goals for industry through a coherent strategy and defined C² architecture into which future systems can be plugged.

KBW is a departure from the attrition of enemy forces in a linear battlefield that emphasizes physical destruction of targets to a nonlinear focus on effects and outcomes both in and outside the battlespace. It envisions a process that determines, predicts, and measures cascading effects across enemy systems of lethal and non-lethal precision measures.

Decisionable information provided via a distributed network empowers individual warriors, blurring the distinction among the strategic, operational, and tactical levels. Lone soldiers, armed with a knowledge of desired effects and outcomes coupled with a superior battlespace awareness, will be able to affect strategic outcomes. Decisionable information and the processes that produce it create an opportunity for faster, more informed decisions at the policy level, more rapid planning and execution by warriors, and more timely adaptation of security processes. Timely adaptation is a deliberate byproduct of real-time monitoring, feedback, and analysis of measures which are taken by warriors in the battlespace. The result is to speed up the whole security process, from pre-crisis monitoring through execution of chosen courses of action to crisis termination.

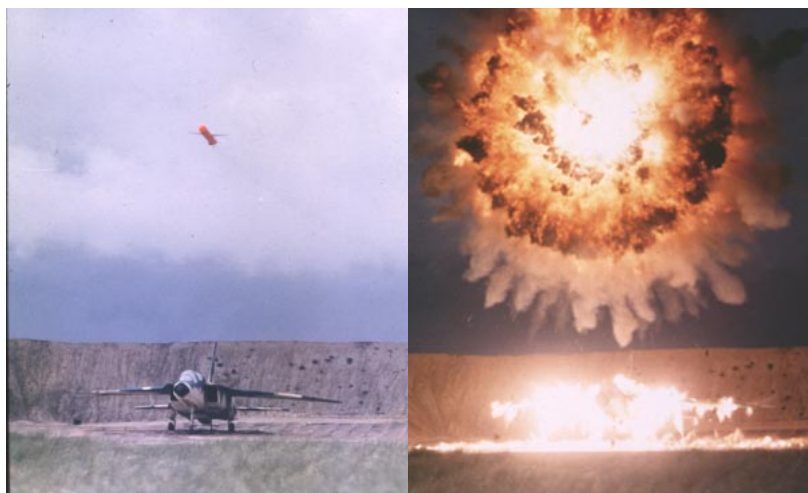
KBW stresses controlling the tempo of battle, allowing commanders to leverage superior knowledge to engage at the time, place, and pace of their choice. Time thus becomes a measure of effectiveness for security processes. Parallel war is the ultimate expression of this procedure. Combining dominant battlespace knowledge with the ability to simultaneously attack all key targets with precision measures across the spectrum of an enemy's systems in a relentless, high tempo, and very lethal assault yields the explicit capability to bring a sophisticated industrialized society to its knees in short order and an implicit capability to hold a massed force hostage.

KBW brings a new mind set to planning and information sharing. It embraces dynamic, interactive, collaborative planning with an emphasis on systemic, effects based targeting geared to desired strategic outcomes. This is coupled with the parallel distribution of information, from the decisionmaker to soldier, with intelligent agents to sort decisionable information. It places greater emphasis on data analysis and creates more decisionable information and ultimately knowledge.

KBW Implications

Opportunities offered by KBW have significant implications for national security strategy. It not only can enhance capabilities but increase options for decisionmakers, who utilize knowledge derived from a common base to apply political, diplomatic, and economic measures to avoid using force. This may solve our current dilemma

KBW not only can enhance capabilities but increase options for decisionmakers



DOD

TLAM dispensing submunitions.

by facilitating the transition to a more capable, efficient force that can deter large scale conventional conflict and offering policymakers tools to help shape the future security environment.

The *Gulf War Air Power Survey* concluded that the precision guided munitions (PGMs) of Desert Storm fame were up to a hundred times more effective than the dumb bombs that were used in Vietnam.³ Army studies concluded that precision guided artillery rounds that sense and destroy armor are up to 15 times more lethal than unguided rounds against the same target. Using these systems in the context of a shared picture of the battlespace—a common reference system—can multiply their contribution to enhancing combat capability.

By implication, combat units can be organized into smaller task-organized elements that are more mobile than units today. They will have equal or greater capability. They can operate within an enemy's decision cycle since they will leverage information to accelerate the pace of operations. Because these units are networked on an information system, they can fulfill multiple tasks on a nonlinear battlefield and be mutually supporting. Forward staffs can be reduced and commanders can use the information network to reach back to out-of-area staffs and exploit resident expertise in analysis centers such as DNA, U.S. Strategic Command, and selected laboratories such as Lincoln and Lawrence Livermore. Smaller sized units, increased lethality, and reduced forward staffs can surge the reduction effect on logistics and acquisitions that will result in increased agility and decreased vulnerability, in part due to a shrunken logistics footprint. This generates a force that can conduct high intensity parallel warfare, simultaneously hitting an enemy's political,

military, and industrial infrastructure on all levels. It also does more with less. The overall force structure can be reduced since smaller units will be more capable than larger ones; some combat support functions such as intelligence will be subsumed by operations; and staff and support functions can be consolidated into fewer "centers of excellence" or combined career fields in support of multiple fielded forces by a robust network. In addition to a geometric reduction in logistics and acquisition costs, smaller forces translate into a diminished infrastructure for training and maintaining forces and fewer resources for recruiting, training, and sustaining personnel.

The logistics anchor desk (LAD) which supported Joint Endeavor in Bosnia illustrates the potential reduction in logistics requirements with KBW. The Army has the lead in developing this system, which provides access to authoritative data, contains responsive planning tools, and lets logistics staffs collaborate in planning. One of the most used tools in LAD is the knowledge-based logistics planning shell (KBLPS), which utilizes artificial intelligence tools to develop and analyze transportation and supply distribution. When the Army was preparing to establish the intermediate staging base in Hungary, the standard for their facilities was the ability to handle 10,000 soldiers. KBLPS showed that the number would not exceed 6,000. Thus not only was the physical size of the staging base reduced, so were support requirements for meals, water, and beds. Just imagine the compounding effects if knowledge-based systems pervaded our operations.

Deterrence

The devastating capability of KBW is a conventional complement to our nuclear deterrent. An enemy who clearly realizes our superior capacity to conduct high intensity, parallel warfare will most likely be deterred from large scale conventional aggression, thus reducing the need for a large force structure. Events in Bosnia in autumn 1995 may provide insight into this potential future. Precision air strikes in conjunction with diplomatic and other measures achieved the desired effects: termination of the bombardment of Sarajevo and convincing Serb troops to remove their weapons. Subsequently, 13 Tomahawk land attack missiles, part of a broader air campaign and coupled with diplomatic and economic measures, disrupted Serbian C² systems. The point was clear: We had both superior knowledge of Serbian systems and the ability and political will for precision attack. Serbian forces were vulnerable. Their grasp of our capability and will, coupled with political and diplomatic measures, helped achieve our desired outcome, cessation of hostilities.

TLAM striking fixed facility.



The deterrent potential of KBW is not limited to large scale conventional conflict. With its adoption, we may be able to add to force structure savings by exploiting knowledge-based systems to proactively shape our security environment. Abilities that contribute to superior knowledge of the battlespace can also enable policymakers to act sooner to contain or even deter a crisis.

Preventive Defense

KBW also extends the concept of preventive defense. It provides a potent tool to promote stability and thwart aggression in a chaotic world through the extension of a knowledge umbrella, analogous to the nuclear umbrella proffered during the Cold War.

Superpower competition during the Cold War produced a cult of secrecy where knowledge held was power. Since then information has become a commodity to exploit in achieving national objectives, much as military aid, training, and foreign sales now bolster alliances. In the future our contribution of knowledge to an alliance or coalition may be more critical than past endowments of forces and manpower and could be the basis for forming affiliations. Sharing knowledge can help optimize resources by enabling our partners to act decisively without any direct involvement by our forces. It can also strengthen partnership arrangements and military to military contacts through security dialogues based on an awareness of our plans and intentions. In shifting to an information age industrial base, our knowledge-based system will encourage allies to adopt systems that enable them to “plug and play” under our knowledge umbrella. As partners plug into this umbrella, the opportunity increases to access their unique data sources to build our knowledge base.

Factors for Success

Kenichi Ohmae suggests that sound strategic planning is based on determining what he has called key factors for success.⁴ These are considerations that allow organizations to capitalize on

competitive advantage in specific areas to sustain strategic advantage. What does it take to realize KBW? The answer is enabling technologies, process engineering, and organizational change.

KBW is as much a thought process for considering warfighting in the future as an array of technologies. It thus becomes a construct to drive technology to provide data collection, analysis, and information dissemination systems critical to achieving the common picture of the battlespace that is in turn essential to information superiority. This contrasts with current acquisition processes which rely upon industry to bring out new technology for which the services develop operational applications, integrating it into existing notions of force structure and operations or applying it to existing systems to improve capabilities. KBW opens the door to explore not only technologies, but processes and organizations that will sustain our strategic advantage.

The enabling technologies that help form a common picture of the battlespace and provide decision tools for commanders in the field are also vital to enabling a new warfighting capability. First, it is critical that we develop a digital world map, accurate to one meter in latitude, longitude, height, and depth. This will provide a common reference system which will serve as the index for analyzing time-tagged sensor data and as the basis for a shared picture of the battlespace. Common geographic references will accelerate correlating sensor data with ground truth, thereby allowing us to automatically fuse data gathered by separate sensors, and streamline C². Operational planning and execution which uses a common reference system will also improve the targeting and delivery of PGMs and precision employment of “dumb” or imprecise systems. This digital map will be the foundation for a geo-spatial data base that will allow automatic fusion of data from various sources based on time and geographic location. Such reliable geo-location is the keystone to information systems designed to support the KBW concept.

There are many technical challenges to creating an accurate three dimensional map. It will call for advances in information processing, precision navigation, and time control. The sheer size of the database needed to maintain an accurate digital world map will require innovative approaches to data handling and dissemination. Research is in progress that could contribute to this objective. The Defense Mapping Agency is working with industry on a promising idea for data warehousing. A concept known as anchor desks to disseminate information may also be helpful. Advances in precision navigation technologies like the wide area global positioning system (GPS) enhancement and systems like the tightly coupled GPS/INS (inertial navigation system) which is incorporated in the Advanced Research Projects Agency (ARPA) GPS guidance package will facilitate

electro-optical sensors slated for deployment on UAVs can image 11,000 square nautical miles a day

exploitation of geo-spatial data and may help update the geo-spatial data base through use of sensors guided by these navigation technologies. Finally, exploiting this data will require time control in the form of a very accurate time standard and advances in information processing to permit using time-tagged geographic points as addresses in a geo-spatial data base, essentially hanging time-tagged sensor data on a digital world map.

Second, with advanced multispectral and hyperspectral sensors, a digital world map and associated precision navigation and time standards will facilitate automated change recognition, or ACR, using computer technology to help identify physical and behavioral changes. This is vital because more data is collected today than can possibly be examined and archived. For example, the electro-optical sensors slated for deployment on the Dark-Star and Global Hawk unmanned autonomous vehicles (UAVs) can image 11,000 square nautical miles a day. Moreover, a single UAV could produce enough 8x10 glossy prints in a 24-hour period to cover three football fields. ARPA studies indicate that automated change recognition systems could reduce the imagery which an analyst must examine by a factor of 1200:1.⁵

Conducting change recognition at the pixel level will reduce the amount of band-width that is needed to disseminate imagery. If the dissemination system only sends the digital data required to show change on information already archived at forward sites, the amount of data being moved across the communications infrastructure will drop dramatically.

An automated change recognition system should capitalize on the technology of time tagged data processing exploited to support it like

the Navy cooperative engagement capability (CEC) that fuses data from multiple radar sensors into a real-time target track. An ACR system combining all these capabilities would be sophisticated enough to detect physical changes like massing of forces or behavioral changes such as increased communications traffic on a particular line. We can use accurate time to correlate sensor data to detect changes in either minutes or seconds. This ability to recognize changes in physical or behavioral patterns could become the trip wire for indications and warning systems and enable automated collection and subsequent analysis of base data for effects based modeling. Automatic change recognition is essential to an adaptive process or knowledge-based system.

Effects Based Planning

Third, battlespace awareness would help forces determine the effects of actions in combat. This would require analytic tools and computer systems that provide commanders with a common picture of the battlefield. It would also call for tactical and operational level sensor systems that can respond to combat commanders in near-real-time. One advance in this direction is the concept of operations used by the NATO Implementation Force (IFOR) in Bosnia which links Predator UAV sensors to the joint surveillance and target attack radar system (JSTARS) to provide real-time video of the data depicted on moving target indicator systems.

Fourth, effects based planning must be supported by those automated decision tools that can model our forces as well as enemy systems within the context of a commander's battlespace. For effects based planning and analysis, commanders need detailed, interactive models of enemy military, industrial, and political infrastructures. Modeling this concept is a planning and analytical tool that accurately depicts the intercourse among enemy economic, political, military, and social structures and predicts the impact of operations on many target sets in these categories. Modeling will allow us to select weapons or forces most commensurate with our objectives.

System models are the basis for effects based planning. One is Adversary software from the National Security Agency which overlays an enemy's known communications infrastructure on a map so that commanders can assess the impact of disrupting particular nodes. Future models of enemy systems must predict the effects of a planned operation and link them to broader strategic outcomes. The development of accurate systems models poses analytic and technological issues. Because of their magnitude they will require advances in the

symbiotic, chaos theory, fuzzy logic, and mathematical bases. For commanders to accurately evaluate courses of action, such models must reliably represent effects and be interactive among land, sea, and air components. Modeling systems to a degree necessary to conduct effects based planning will require a worldwide database of systems to help commanders and decisionmakers clearly understand the impact of operations. Systems models will be the tool to exploit our knowledge of the battlespace in order to react at a pace and intensity that renders an adversary incapable of meaningful response.

Process Engineering

To help combat forces an integrated C⁴ISR system must produce decisionable information. This calls for a deliberate process engineering effort to determine what information is needed by whom, when, and in what format. We now have a communications, information, and intelligence infrastructure that purports to conduct some of these functions. Process engineering in this context will have to involve the users. They must be educated on the intelligent application of technology and how it can be tailored to their needs. Too often operators have defined preliminary needs and allowed technologists, systems engineers, or analysts to define final information structures. Users thus were not getting what they needed or were being buried in unwanted data.

Process engineering will form the foundation for a cultural change in information sharing. To support forces that must operate autonomously inside a sophisticated enemy's decision cycle, we must construct an infrastructure that allows for the parallel dissemination of information—its simultaneous distribution to all the parties who require it for planning or execution. In this context, commanders can have full confidence that all their forces will have access to the same information at the same time, and in a format that allows them to take action. Parallel dissemination will also enable them to engage in collaborative planning and interact with a centralized battle management system. It will also facilitate central command and coordination of forces with the distributed or decentralized execution of operations.

Changing processes for information collection, analysis, and dissemination is a daunting intellectual challenge. An analogous process change has been going on in the commercial sector since the microprocessor made desktop computers a reality in the early 1970s. Much of the turmoil in

corporate restructuring reflects changing information processes. In the military this is further aggravated by the fact that lives depend on the accuracy and timeliness of information.

Finally, the measure of effectiveness for this process engineering will be time—how fast accurate information is delivered to those who need it. Operating inside an enemy decision cycle is a key advantage of KBW. Leveraging decisionable information will allow a commander to control the time and tempo of a conflict, forcing an enemy to react to the commander's initiatives.

Organizational Change

The technology and process changes discussed thus far will have an organizational impact. One of the most profound will be our perception of what constitutes combat. C⁴ISR is a combat function in the information age. This is not to imply that the infantryman, pilot, or submariner has a diminished combat role. Rather, C⁴ISR personnel, organizations, and processes—traditionally regarded as combat support—must now be defined as integral to combat. This change must occur across the board: conceptually, operationally, and institutionally in the ways in which we organize, train, equip, and fight forces. This has significant implications for organizations, careers, training, command, acquisition, and where we invest defense dollars.

As a consequence of knowledge-based warfare, operations will absorb many functions we associate with intelligence. Future operators must interact with knowledge-based systems in order to conduct effects based planning and execute operations. By necessity, these operators will be intimately familiar with the collection, analysis, and dissemination of information needed to employ advanced munitions. This also implies giving the development and deployment of C⁴ISR systems a priority equal to that of new weapons since the Armed Forces will leverage the information from C⁴ISR to employ their weaponry. In the future battlespace, information dominance may be key to victory, and a robust C⁴ISR system is the key to information dominance.

Recommendations

Initial steps on the road to transition include the following:

- *Make an integrated C⁴ISR system the highest investment priority of research, development, and procurement—equal in status to deployment of improved weapons systems.* We already have invested heavily in a capable inventory of precision and conventional weapons systems. We must be able to achieve information superiority to assure victory in the future battlespace.

- *As ultimate arbiters of change, it is essential that the services adopt KBW as a warfighting philosophy.* Each

C⁴ISR personnel, organizations, and processes must now be defined as integral to combat



U.S. Air Force (Carol Floyd)

**NORAD/SPACECOM
command center,
Cheyenne Mountain.**

service has a vision of its place in future warfare. KBW is a unifying concept that all the services should adopt. A shared vision is critical to guide service acquisition, doctrine development, and cultural change. Without it we risk dissipating an historic opportunity to exploit our asymmetric technological advantage to extend strategic dominance in the information age.

■ *Immediately introduce the concept of KBW to soldiers, sailors, marines, and airmen at all levels of professional military education.* The Chairman and service chiefs can be the flag-bearers, but broad support from within the services is crucial, especially in the education process. Change is occurring now, but the basic transformation implied by KBW will come with the generation that is entering the military today. In addition to warfighting skills, we must teach them the impact of rapid advances in information technologies on warfare.

■ *We must encourage this new generation to debate the merits of KBW, explore the changes in organization and process that emerging technologies bring, and experiment with those changes.* We have a rare opportunity where there is no clear and present threat to our national survival. This is the time for innovation and calculated risks.

The United States is in a unique position as the sole “superpower” in a post-Cold War world. It is also blessed with a healthy economy, preeminent military, and information leadership. KBW represents a logical evolution from an industrial age, threat based strategy to an information age, capabilities based strategy. This capitalizes on a growing “informational” base, which now is supplanting our industrial base in economic significance, and an educated population that includes a new generation which is growing up with the digital revolution. In our laboratories, field tests, and exercises we must risk failing now to succeed on tomorrow’s battlefield.

The strength of a hedge strategy—as implicit in BUR—is that it retains a force structure recognized as preeminent in the post-Cold War era. The fruits of a large scale investment in an industrial age force are a global recognition of unmatched U.S. capability which has helped deter

large scale regional adventurism. Having a robust force structure in place also provides the luxury of a measured approach to incorporating costly or risky new systems. Technologies need not be incorporated until proven and there is reasonable assurance they will enhance existing capabilities.

The irony of a conservative hedge strategy is that it poses the greatest security risk in the long term. Its intent is to maintain the military edge of the Cold War and Gulf War. This has been accomplished at the expense of recapitalization for the very forces that are key to a hedge strategy. The risk of this approach is block obsolescence of combat hardware, a hazard that grows with each year as recapitalization funds are used to maintain current readiness. A possibly greater danger is that an enemy may bypass industrial age forces and leap straight into dramatically more effective information age capabilities. Not hindered by a large investment in older systems, such an enemy could develop a dominant new capacity reminiscent of *Blitzkrieg*.

A transition strategy focused on the information advantage would not only yield immediate military improvements but benefit the growing “informational” base of our economy. The savings from not recapitalizing industrial age hardware, and reductions in force consistent with the absence of a near term threat to the Nation, could be used to accelerate the development of KBW. Growth in capabilities from this type of warfare is key to retaining strategic dominance. Early development and fielding of the substance of KBW may be an effective barrier to an enemy who cannot afford or is technically unable to develop a similar capability. At a minimum, it will allow us another decade or two of peace and stability. **JFQ**

NOTES

¹ William J. Perry, *Annual Report to the President and the Congress* (Washington: Government Printing Office, March 1996), p. 5.

² James Kitfield, “Fit to Fight?” *National Journal*, vol. 28, no. 11 (March 16, 1996), p. 582.

³ See Thomas A. Keaney and Eliot Cohen, *Gulf War Air Power Summary Report* (Washington: Government Printing Office, 1993).

⁴ Kenichi Ohmae, *The Mind of the Strategist: The Art of Japanese Business* (New York: McGraw-Hill, 1982).

⁵ “Battlefield Awareness, Program Overview,” SDSSG briefing by Taylor W. Lawrence, Information Systems Office, Advanced Research Projects Agency (February 1996).

It's Not About Mousetraps— Measuring the Value of Knowledge for Operators

By FRANK B. STRICKLAND, JR.

For decades to come . . . many of the best military minds will be assigned to the task of further defining the components of knowledge warfare, identifying their complex inter-relationships, and building the “knowledge models” that yield strategic options.

—Alvin Toffler and Heidi Toffler,
*War and Anti-War: Survival at the Dawn
of the Twenty-first Century*

The National Reconnaissance Office (NRO) builds, launches, and operates systems which collect information from space. It responds to requirements from the Joint Staff, CINCs, DOD agencies, Central Intelligence Agency, National Intelligence Council, operational and service intelligence elements, Department of State, and other members of the intelligence community.

In this maelstrom of requirements, systems developers such as NRO can begin to believe that the end game has more to do with *mousetraps* (systems) than *mousing* (customer needs). This tendency is exacerbated in a culture like NRO's where some of the best and brightest engineers are attracted by elegant technical solutions that underpin all NRO

operations. This is a danger similar to the criticism of earlier high definition TV which Nicholas Negroponte made in *Being Digital*. He asserted that research was misdirected at higher resolution pictures instead of improvements in the “artistry of content.” Simply put, in pursuing creative uses of cutting-edge technology NRO must continue to sharpen its grasp of the nature of customer tasks and the attributes of knowledge that enable them. This was the goal of a recent wargame, Forward Focus II, cosponsored by NRO and the Office of Net Assessment within the Office of the Secretary of Defense (OSD).

Wargames provide a technique to determine the degree to which knowledge contributes to achieving operational objectives, the kinds of knowledge required by operations, and knowledge strategies needed to cope with various enemy forces and activities. Games have been increasingly utilized by OSD, the Joint Staff, and the services to explore relationships between information and

wargames help intelligence professionals gain insight into the military genius to recognize strategic opportunities in the battlespace

warfighting. For NRO and other intelligence agencies, wargames also provide a venue to expand the dialogue with operators about operations rather than focusing on specific information systems requirements and technologies.

Additionally, wargames help intelligence professionals gain insight into the operational art—the culminating point and rationale of all the knowledge requirements of an operator—or what might be described as the military genius to recognize strategic opportunities in the battlespace. However, according to the director of net

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assessment, Andrew Marshall, past information-related games may have lacked the analytical rigor to dissect and measure the complex interrelationships between knowledge and war. This article will examine one attack on this problem: the Forward Focus value model and its use in measuring an operator's needs for information. Moreover, it will highlight Forward Focus II discoveries and their potential for future warfare. These findings are based on operator preferences and utility measures expressed in a wargame and captured through a multi-attribute utility analysis technique (value-focused thinking) for various operational objectives during the wargame.

Elicitation Technique

The first wargame in the series, Forward Focus I, was conducted at the National Defense University in March 1996. Players defined generic information system attributes for a variety of operational tasks. While the game was fruitful, its methodology contained artifacts from the toys-to-task approach raised in deliberations on intelligence support to operations. That is, operators were to tackle the problem by applying the capabilities of the intelligence system (toys) to operational tasks. A more natural sequence would begin with the knowledge needed to accomplish operational tasks, then reach to find characteristics of intelligence systems that could satisfy them.

Forward Focus I took a step away from the future systems grab bag approach by having operators score system attributes vice specific systems, and an excellent group of players produced data which yielded meaningful results considered within the boundaries of a regional war scenario. For example:

- Players identified timelines as a dominant information system attribute.
- Longer periods of collection access were useful for increasing the responsiveness to operators. Continuous collection over a long time—the intelligence equivalent of a running commentary—seemed less useful.
- Players evidenced a willingness to trade the quality of information for increased timeliness—detail for speed.
- Players indicated that on-line digital archives could often offset the need for real-time collection. They would have to be developed primarily before the crisis. The presence of such an archive seems to facilitate the quality-for-timeliness trade.

In addition to substantive findings, lessons from the Forward Focus I methodology were critical to shaping the Forward Focus II elicitation technique. In the first game operators expressed concern with the vernacular of intelligence collection

and the use of that dialect to define operational measures of effectiveness. This challenged the sponsors to identify a means to measure the value of information from an operator's perspective which became a key design goal of Forward Focus II.

The objectives of the second game were defined in 46 analysis questions. These and the Forward Focus series generally are far more than an academic exercise. Games are one analysis technique that contributes to major program decisions on the characteristics of future intelligence architectures. The Forward Focus II objectives supported this aim. They were:

- further analyze the Forward Focus I data and discoveries
- produce analytical data with sufficient quality and depth to support decisionmaking
- discover new techniques to analyze the needs of operators
- improve the working relationship between supplier (intelligence community) and consumer (warrior)

To satisfy these objectives, NRO and Net Assessment required the appropriate analytical framework, one that informed present decisions with an awareness of future value and utility. In 1992 NRO members participated in *Spacecast 2020*, a study mandated by the Air Force chief of staff and managed by Air University. Its goals included identifying high leverage technologies and applications for space systems in the year 2020 or so. It was followed in 1995 by *Air Force 2025*, which broadened the inquiry to examine air, space, and information operations in the far future. A distinguishing feature of both studies was the analytical model used to identify what's-better-than-what from a combatant's perspective. Because Air University includes the Air Force Institute of Technology (AFIT), the studies relied upon AFIT faculty, especially the department of operations research. Based on analytical challenges, potential models for identifying high leverage capabilities and the technologies that could enable them thirty or more years in the future ranged from a most-to-least dear ranking to cost and effectiveness modeling. A simple qualitative ranking was judged inadequate, and insufficient cost data on future systems (including the costs of bringing emerging technologies to fruition by 2020–2025) made precise cost modeling impossible.

Value-Focused Thinking

A fortuitous compromise was found in *value-focused thinking* (or multi-attribute analysis), a technique pioneered by Ralph Keeney which allows preferences to be weighed by decomposing them into attributes or qualities and defining utility curves that describe the utility of an attribute. For example, if the people assigning preferences valued food to meet the overall goal of staying alive, the attributes of food might include smell,

taste, texture, sodium content, caloric value, and fat content. Such qualities become quantified in an elicitation process, essentially an extended pair-wise comparison which involves assigning numerical values. Thus the qualities of food must total 1.00 and might be divided as: smell (0.06); taste (0.50); texture (0.04), sodium content (0.03); caloric value (0.20); and fat content (0.17). This reveals that for the evaluators the most important quality of food is taste. To the extent that food

means staying alive, taste is the dominant quality. These values (or weights) are quantified by utility curves and distributions that then allow *qualities* and preferences to become *quantities* that can

be compared. The relationship among food, shelter, warmth, and oxygen can then be understood for their contribution to staying alive, and taste can be compared as a value to a different attribute, such as the value of “76 degrees F.”

Value-focused thinking allows qualities and quantities to be linked in a single model. This is a technique that requires the elements it uses to be both comprehensive when taken together and as mutually exclusive as possible when separate. Consequently, food and taste cannot be on the same level since taste is a subordinate of food. The highest and best value accrues when analysts work with evaluators to construct a utility or preference curve for each quality by eliciting this data from evaluators. It is not enough to know that taste is dominant. Taste must be analyzed to learn the points at which *how much* or *how good* affect the quality called taste.

A model for the measurement of the intelligence component of operations awaited creation. The decomposition technique that is a prerequisite for constructing a value model required NRO to think about military operations and intelligence from a combatant’s position. The analytical team concluded that intelligence, however defined, helped a combatant meet operational objectives and thus should not be the model’s aim. By defining the model’s objective as “conduct an operational task,” the team helped ensure the intelligence component was structured from an operator’s view.

With the object defined the next issue was what combatants *do* to meet an operational goal. This elicited hundreds of action verbs which, when grouped by affinity diagramming, revealed that meeting operational objectives required combatants to do three things: *know*, *plan*, and *execute*.

The next major issue became how intelligence contributes to meeting operational objectives. This required a better understanding of what intelligence *did*. From before the days of Sun Tzu, knowing one’s own forces and those of an adversary has been a prerequisite for military success. Martin van Creveld, John Boyd, and others have discussed the role of knowledge in warfare and competition. One’s knowledge of war rarely reaches certitude, and tradeoffs between certainty and knowledge adequate for effective action must be made continually. Friction and chance are added to a smart adversary’s denial and deception operations making *knowing* chancy. The battlespace, despite our best efforts to control it, remains nearly chaotic. Understanding the role of knowledge in the battlespace and its contribution to operational activities proved a monumental chore.

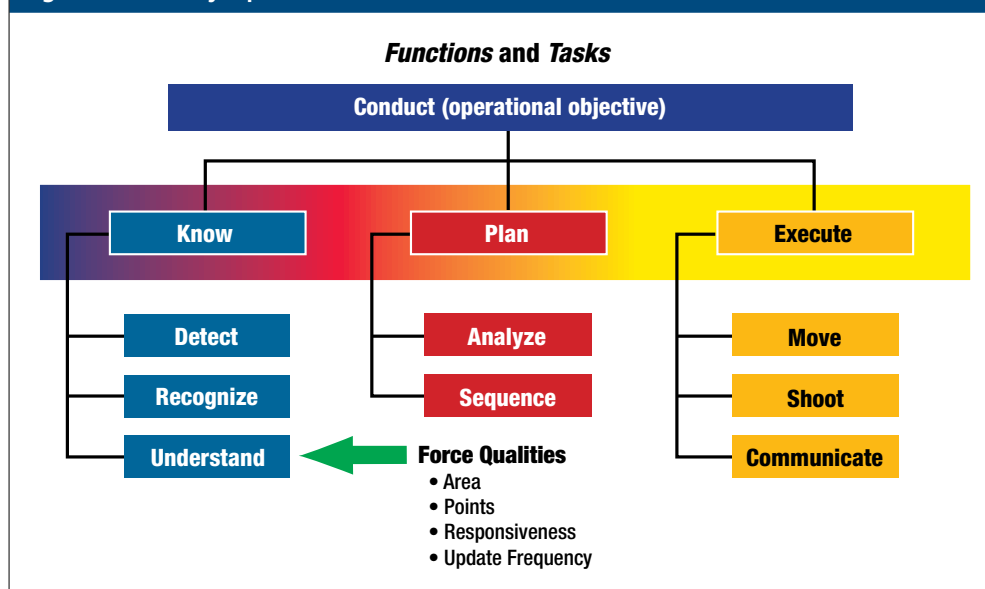
Action Words

Analysis showed that to combatants *intelligence* as a noun is *knowledge* about an adversary and the environment. As a verb, knowledge is *knowing*. The question then became what are the component parts of knowing, also expressed as verbs. Focusing on verbs is important for several reasons. First, they provide a basic understanding of what must be done, and, second, they help avoid seeing the world as either products or product divisions. The model pivots on understanding the component parts of knowing, not on nouns like J-2, signals intelligence, imagery, satellites, or unmanned aerial vehicles. Finally, verbs allow those who use the model to recognize that there are potentially many ways to *do* what must be done and an array of products that might fill that need. The result was a model indicating that the components of *know* were the verbs *detect*, *recognize*, and *understand*. These action words represent levels of cognition and occupy graded rungs on the abstraction ladder: it is easier to *detect* than *understand*. The Forward Focus II knowledge model emerged. It included the component verbs for *plan* and *execute*, and an example of a utility curve for *responsiveness* appears in the accompanying illustration (figure 1).

Application of the Forward Focus II model in a game required an adversary and a group of players. A wargame adversary is fully characterized through force capabilities, current disposition in the battlespace, and the geography on which it operates. A history of the scenario, the conflict path—though sometimes emphasized in gaming design—is less important than the action-oriented problems blue combatants face. It is ultimately of little value to debate the plausibility of a game scenario in the 2015 time frame. It is doubtful, for example, that the Falklands War was

understanding the role of knowledge in the battlespace proved a monumental chore

Figure 1. Military Operations Value Model



gamed decades prior to that conflict. Similarly, it may matter less who a future adversary actually is than that we foresee the possibility that very capable adversaries might arise. A scenario nonetheless does provide boundary conditions for the experiment and the conditions which result. In the case of Forward Focus II, a different fight or problem under different conditions may have changed the knowledge required for operations.

The Forward Focus II scenario had one principal criterion: construct an initiative-oriented regional competitor with robust long-range precision strike capabilities. NRO developers wanted to capture, as far as a wargame can, the dynamic of combat operations in which offense, defense, and planning occur simultaneously. This was achieved in large part by equipping the adversary with substantial theater ballistic missile and long-range fighter/bomber platforms with weapons of mass destruction (WMD). To help players focus on the adversary and not fight the scenario, actual countries and other geopolitical issues were avoided although real geography was used to avoid the investment in a synthetic geophysical environment and in familiarizing players with it.

While the elicitation technique and scenario are essential to a good wargame, the knowledge of the players is by far the most critical component. This was especially true given the complexity of this technique and effort required to complete the value model for any one operational objective.

Forward Focus II players provided a wealth of operational experience. Their intellects and creativity gave purpose to an elicitation technique that otherwise would have been just another interesting model.

Participants were chosen by name and invited based on warfighting experience, knowledge of the operational art, and combat arms specialty. The aim was that the group represent expertise across the combat arms disciplines. The thirty soldiers, sailors, marines, and airmen—grouped into theater, land, sea, and air cells—came from Air Combat Command, Carrier Group Three, 101st Airborne Division, 9th Bomb Squadron, 8th Special Operations Squadron, and the Special Purpose Marine Air-Ground Task Force (X). Operators

currently serving in program analysis and planning positions with Congress, OSD (Strategy and Requirements), the Joint Staff (J-8), service staffs, U.S. Army Training and Doctrine Command, and National Imagery and Mapping Agency also took part. In addition, senior engineers from the aerospace industry participated so they could experience an operator's perspective. The senior player and theater cell leader was a retired general and former member of the Joint Chiefs.

Over the course of three and a half days the Forward Focus II players scored the model for twenty operational objectives (military tasks). These objectives were adapted from the unified joint task list and defense planning guidance scenarios. They were selected to represent a range of land, sea, air, and special operations tasks that would be high priority against the Forward Focus II adversary which included destroying the capability to deliver WMD, suppression of air defenses, identifying/countering the main advance of ground forces, countering special operations attacks on friendly airfields, and conducting an amphibious landing.

Marshall's injunction to the developers included overcoming the paucity of quantitative data traditionally produced by a game. The challenge was met. Players produced 20 weighted models of specific attributes required of any knowledge system with dozens of associated utility curves. This quantitative data illuminated other data as player comments and rationale were examined in the context of stated preferences and the utility curves that quantified the specific value they ascribed to an attribute. Among the

findings were insights into how operators view knowledge apart from platforms, sensors, and technologies; how knowledge is generated and battlespace analyzed to direct its gathering; levels of cognition required to *know*; the preference and utility for qualities in the time domain; and a theory of how target objects and associated knowledge values may be grouped into three categories.

Preferences for *know*, *plan*, and *execute* confirmed that knowledge is critical to combat operations. In fact, for problems posed during the game the average value of *know* for operational tasks was nearly equal to that of *plan* and *execute* combined. Those who might rush to judgment aside from the boundary conditions previously cited should be cautioned. The fact that knowledge is a decisive component of war is supported by thousands of years of military history. However, the Forward Focus II model, being platform- and sensor-independent, helped emphasize the value of an operator's organic ability to sense and analyze the battlespace, or more crucially, a warrior's intellectual process for gathering, sorting, deciding, and acting on information.

Analytical Frameworks

All knowledge is not a product of non-organic collection and analysis. In doctrine, operators discern much about the battlespace for themselves by applying analytical frameworks such as mission, enemy, troops, terrain and weather, and time available (METT-T). Player responses indicate that much is gained by integrating METT-T into

any definition of operational information needs. Operators use METT-T to develop knowledge, but the Forward Focus II players indicated a further application—guiding the collection of missing knowledge. One can note

another verity of warfare as timeless as METT-T: any need is weakness. Thus, the need for knowledge makes one vulnerable to age-old deception/denial measures as well as future information warfare techniques.

By applying METT-T during Forward Focus II, operators characterized a much different battlespace than the tens of thousands of contiguous square nautical miles often reflected in post-Desert Storm discussions. Players approached operational goals by identifying signature objects. These are frequently a subset of objects in a larger unit that, when located and identified, indicate

the probable status of an entire unit. The presence of mobility and countermobility equipment, for example, may indicate the combat unit and location an adversary intends to use to commence a new offensive. Other signature objects such as armor can theoretically be anywhere in the battlespace. However, by overlaying the METT-T template large mechanized units are more likely to be found in some locations than others. For instance, without the benefit of satellites, the U-2, or other such collectors, the men of the 1/21st were told they would be in the enemy's path in early July 1950, as Max Hastings indicated in *The Korean War*. This was based on organic knowledge—contact with North Korean forces—and application of METT-T. In this case, the routes to the south for a large mechanized force were few and obvious.

An adversary with long-range missiles and the ability to move rapidly is a larger challenge. For the game, threat radii from surface-to-surface missiles and long-range fighter-bombers created a battlespace in excess of two hundred thousand square nautical miles. Current surface-to-surface missile capabilities reflect a similar threat while future systems would further expand the threat area (see *Proliferation: Threat and Response* published by the Department of Defense in April 1996). While the scope of the game did not permit a precise delimitation of the battlespace to likely threat locations, operators were clear in using METT-T to delimit searches for all signature objects.

To the extent that long-range precision strike forces are a future threat of interest to U.S. planners, the battlespace must be defined by the radii of threat systems—hundreds of thousands of square miles versus tens of thousands. Theater cell players identified this as the top priority based on the nature of the threat and ability to deliver WMD. As one very senior officer in the theater cell remarked, "Our number-one priority is to destroy red's ability to continue the offensive . . . the CINC's job is to prevent his component commanders from being surprised." Thus, knowledge gathering was defined as many small areas and points located in an extremely large threat ring.

Preferences in the component cells differed notably from those in the theater cell. While knowing about objects and activities in large areas had some value, there was a strong, consistent preference for a combination of points, responsiveness to the need for specific knowledge, and frequent updating of that knowledge. Aside from surface-to-surface missiles and airborne aircraft, forces that traverse the earth's surface do not move very far or fast under the best of circumstances. Likewise, even highly mobile aircraft present large signatures while located at an airfield. These characteristics allowed component cells to focus on

knowledge gathering was defined as many small areas and points located in an extremely large threat ring

specific points of interest that ultimately yield targets. Recall that the theater cell had created the obligation to prevent surprise by *knowing* what the enemy was doing in larger areas.

In considering the observation of objects, the terrain component of an operators' analytical framework should not be viewed in isolation from mission, enemy, troops (friendly forces), and time. These other elements, along with extant terrain knowledge, are all relevant to development of knowledge about an enemy. Even terrain with more or less homogenous surface features, such as oceans or deserts, is still relevant to guiding knowledge collection. For example, an object can be much easier to discern from its surrounding environment in relatively flat terrain than in forests, mountains, or jungles. This distinction from the background would change the sensor granularity required to detect the object, which in turn could have effects on the rate and quantity of collection.

Required collection rates also could vary depending on the platform and sensor if there was a need for increased granularity. However, for those objectives where *area* was valued most in this game, players placed a strong preference on the *detect* level of cognition. This seemed driven largely by the enemy's initiative-oriented behavior and offensive capabilities. For certain objects, operators seemed more interested in timely detection to support strikes than detailed discrimination between classes of objects. That is, when red was on the move and the offensive, blue operators were far less concerned with the type of red tank than where those tanks were that needed to be destroyed. These less agile and higher signature offensive forces caused operators to value knowledge about points on the earth's surface. Points with small and agile signature objects caused players to value higher levels of cognition. Signature objects—such as bridging equipment—could indicate the main axis of attack for red ground forces. These objects, sometimes located at very small geographical points, caused a preference for the *recognize* level of cognition.

Behavior Patterns

Those objectives which required the highest level of cognition often did not contain objects calling for more granular sensing. For example, to understand the red C³I system mandated observations over time to identify equipment, capabilities, and patterns of behavior that taken together constitute an adversary's C³I system or process. While behavior patterns can and must be observed in the battlespace in war, identifying von Moltke's strategic opportunities may be based in large part on the observation and characterization of potential enemies during long periods *before* hostile conflict.

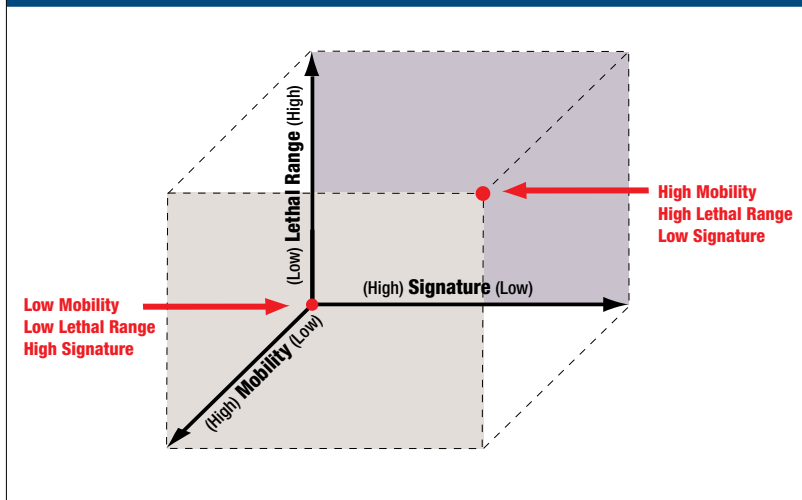
This suggests that readiness should include a measurement of whether a unit has sufficient prior understanding of enemy capabilities *and behavior patterns* for the mission.

The operational utility for attributes such as update frequency and responsiveness also presented potential issues for knowledge collectors and suppliers. Long-range precision strike forces generally close to engagement quickly, sometimes in minutes. This fact, and the emphasis put on these forces which red possessed in large numbers, drove players to create unusually steep utility curves for update frequency and responsiveness. That is, the value of knowing was often measured in minutes to several hours. After a few minutes, knowing where a mobile ballistic missile erector-launcher was had little value. A surprise was that the operational utility of some kinds and levels of knowledge about other offensive forces was well inside traditional definitions of timeliness. The preferences and stringent utility shown for time during this game suggest that all data providers reconsider what they should gather and how it should be delivered. Systems that collect large quantities of data over longer periods may not be operationally effective against needs for more timely data. Again, Negroponte's admonishment is applicable. Technological increases, such as wider and cheaper bandwidth which permits the delivery of more and more bits, does not necessarily increase operational effectiveness. A more complete measurement of timeliness issues would consider the time required by operators to develop knowledge from data and act on it.

Analysis of all models created for the game also yielded a theory on target characteristics and the knowledge required by class of target. This theory drew on observed similarities in values and preferences for different objectives. These similarities—and a reference to the "timeless verities" of warfare outlined by Trevor Dupuy—made it possible to postulate the characteristics of an object independent of its physical manifestation in the scenario. For example, there seemed to be an object-to-value linkage and an object-to-level of abstraction linkage which remained more or less consistent in the game. Thus, the timeless characteristics of targets in war may be mobility, lethal range, and signature. Mobility is the ability to quickly close to engagement. Lethal range is that at which force has deadly effects. And signature is the degree to which an object is discernible from the background environment.

Arrayed on an x-y-z axis, eight specific types of forces emerge, each defined by extremes (lows and highs) in lethal range, mobility, and signature (figure 2). Historically, more threatening

Figure 2. Combinations of Characteristics



with high lethal range and low signature could be identified as agile attack forces. These forces are offensive by nature and may require detection of signature objects within an enormous area in very short timelines. Other forces, such as those with high mobility yet high signatures, allow more focused knowledge gathering over slightly longer periods. A final category of force is found to have consistently low mobility or none at all, such as infrastructure objects. These may require higher levels of cognition over a far longer time to reach the necessary level of understanding. Classifying objects and associated information needs in this way may be of value to analyzing alternative future threats and knowledge strategies necessary to combat them.

The United States is not the only nation studying these matters. Indian Brigadier General V.K.

Nair noted strategies for frustrating and deceiving the knowledge component of the kinds of operations demonstrated by the United States with its coalition partners during Desert Storm in his volume on *War in the Gulf: Lessons for the Third World*. Boyd's OODA loop—observe, orient, decide, and act—applies to periods between hostilities as well as war. Potential adversaries have observed our performance and are likely already reacting.

Neither gaming nor other synthetic environments can fully replicate war. However, games are useful for collaborating with operators to determine and measure the knowledge component of warfare—a study of mousing, not mousetraps. As such, they are an integral component, along with re-

quirements processes and technological research, to improving the ways and means of joint warfighting inside an adversary's strategic OODA loop. Over time various games can provide both data and insights that support a more precise understanding of knowledge in warfare and thus aid the planning of future knowledge architectures. As Andrew Marshall noted, Forward Focus II “shows real progress in developing a means of evaluating the relationship of information to battlefield operations.” Progress continues. **JFQ**

Figure 3. General Target Characteristics and Information Needs

	Agile Attack Forces		Control Forces		Enabling Forces			
Mobility	H	H	H	H	L	L	L	L
Lethal Range	H	L	H	L	H	H	L	L
Signature	L	L	H	H	L	H	H	L
Access	Theater		Sectors		Global			
Cognition	• Detect		• Recognize		• Recognize/Understand			
Amount	• Areas		• Points		• Points			
Update/Response	• Minutes		• Fraction of Hour to Hours		• Hours to Days			

forces are characterized by high mobility (able to rapidly move to effective engagement range), high lethal range (able to outreach opponents and strike them quickly with lethal force), and a low signature (difficult to detect for various reasons). Such forces seem to have consistent values and drive preferences for specific kinds and levels of knowledge. For instance, a force that can rapidly close to engagement does not permit much time between detecting objects and reacting. Objects in such a force have the highest utility for attack. Hence, the value and characteristics of knowing about these objects may remain as constant as their force qualities.

Thus it may be that, regardless of the scenario, three classes of objects emerge with similar information needs as shown in figure 3. Objects



LEADERSHIP:

Some Thoughts on the Military Circa 2025

By DAVID E. PRICE

Having the right leader in the right place at the right time has always been critical to victory. Yet for an institution such as the Armed Forces it is not leaders who bring success but *leadership*. Is there a real difference between individual leaders and institutional leadership? History is replete with examples of the importance of a leader's personal character, courage, and skill to the outcome of an operation. But unlike battles, campaigns, or even protracted conflicts, military institutions are long-term organizations which have enduring political, cultural, and social values. Their key to success is not a single outstanding leader or even a succession of them. Institutional achievement is founded on a system of ongoing collective *leadership* that transcends individuals.

Colonel David E. Price, USAF, holds the Air Force chief of staff chair at the Industrial College of the Armed Forces.

Today, we face significant challenges—none more critical than developing 21st century leadership. What issues will confront future leaders? What qualities and skills will they need to

personal leadership skills will remain essential for the officer of the 21st century

meet the challenges? How should young officers be prepared for leadership roles? These are tough questions that leadership needs to consider today.

Challenges

Numerous trends will shape military leadership over the next thirty years. First, traditional hands-on leadership will remain essential. Second, the current trend toward joint operations will evolve into thoroughly integrated forces. Third, peace operations and other noncombat roles will continue to grow—becoming a major

share of our overall military mission. Fourth, new technology will go on driving rapid change. And finally, fiscal constraints will continue to affect military decisions, especially those related to force structure and modernization.

Traditional leadership. Personal leadership skills will remain essential for the officer of the 21st century. Leaders must think strategically, impart organizational goals, foster group cohesion, enforce discipline, and make pragmatic decisions in stressful situations. There is no substitute for hands-on guidance when training, motivating, and directing people. Nevertheless, leadership will be different in 2025.

Leading integrated forces. Joint operations point toward a future of integrated forces. For example, the Air Force provides air and space operations specialists for our Nation's joint military force. Most Air Force leaders come from that kind of operational background. They understand global reach—global power and the capability it pro-

vides to our National Command Authorities and theater commanders. However, by 2025 most Air Force leaders will not only be familiar with the roles and missions of their own service in joint operations; they will command integrated forces. This means that an effective Air Force leader must understand how to conduct carrier based flight operations as well as how to plan a major peacekeeping operation—not just its airlift or fighter support. It also requires that the Air Force be ready to accept commanders from other services in traditional Air Force leadership roles. Clearly, this trend will affect military commanders from all force components—land, sea, and air.

Ready for noncombat roles. The Armed Forces have been tasked to carry out a variety of nontraditional military missions since the Cold War. By 2025, operations other than war including peace operations will be a routine part of their job. However, it is unlikely that the United States will undertake these missions unilaterally. Thus small-scale multinational force

military leaders will be immersed in a “deep-purple suit” environment

deployments will be relatively common. Successful leaders will be able to relate to diverse cultural elements within their commands as well as deal directly with people in the region whose language and culture differ from our own. An open mind and linguistic skills will be vital for commanders on all levels.

Champions of systematic change. The technological revolution is likely to intensify. This will not only lead to new weapon systems, but information warfare which will change the nature of war. Today, effective leaders drive change to take advantage of emerging technology. By 2025, technology-driven change will put constant pressure on military organizations to reinvent themselves. Officers who follow a traditional organizational paradigm by responding to innovation will fail the leadership test. Successful leaders will be proactive engineers of change—facilitating rapid institutional innova-

tion without sacrificing order or organizational effectiveness.

Leaders as businessmen. Our force structure is a result of fiscally constrained decisions made by past and present civilian and military leadership. Conditions will be no different in 2025. What will change, however, is the focus of leaders. Today, they too often concentrate on getting “rubber on the ramp” at the expense of good business practices. In the future, they must be world class businessmen. Force planning will require consideration of all options including nonmilitary alternatives. Tradeoffs that must be made to optimize force structure will be at least as challenging as those of today. Senior leaders will need an understanding of the budget process and knowledge of cost and systems analysis. Those officers who have force planning and budget expertise will be prepared to serve as senior decision-makers while those without it will be relegated to lesser roles.

The leadership environment of the 21st century will be extremely challenging. Our military leaders will be immersed in a “deep-purple suit” environment in 2025. They will plan and execute nontraditional missions and often lead non-U.S. forces. They will implement rapid organizational change driven by technology. And they will make major long-term force structure decisions based on cost/benefit analyses. The cumulative impact will demand a new mix of leadership skills.

Leadership Concept

Cadets and midshipmen today will form the leadership of 2025. As previously noted, they will need joint experience, cross-cultural and linguistic skills, an understanding of information age warfare, and a business executive’s eye for cost and quality. The question we face is how to build an officer corps for such an environment.

Perry M. Smith suggested in his book *Taking Charge* that those who mentor and ultimately select individuals for leadership roles should “pick individuals who have the capacity to grow and to become gifted generalists.” This advice is more sound today

than ever. Individual members of our future military leadership team will need an unprecedented wealth of generalist skills and a broad base of widely applicable experience.

What if the services continue to train leaders who possess traditional skills and expertise? On the surface this option appears satisfactory. We have an abundance of effective tactical leaders, superb staff officers able to manage complex support systems, and experienced senior leaders with strategic vision responsible for directing large organizations. That sounds like adequate leadership, so why not stick to the status quo?

That approach will not suffice tomorrow. Effective military leadership must be responsive to both the socioeconomic and political environment in which it finds itself. Any force that settles for good traditional leadership will be hard pressed to match an enemy who has adopted the same lessons of leadership and moved on—challenging, refocusing, and updating its leadership concept.

The basic issue is that traditional officer development models tend to be narrowly focused. Decisionmaking, communication skills, standards and discipline, and organizational relationships tend to get significant attention. Jointness also receives emphasis today. However, even there the focus is too often on joint processes and organizations rather than on overall force integration and cross-service team building. The human relations training that most officers receive is inadequate to develop a broad appreciation of cultural diversity; and language training is left to those destined for unique careers, such as defense attachés. Finally, information warfare and the budget process are simply regarded as utilitarian specialties with no direct relevance outside a functional context.

In 2025, we will probably need about the same mixture of tactical leaders, staff officers, and senior decisionmakers we have today. But without changing the way they are prepared, there will be an increasing number of tactical level commanders

who are unable to take full advantage of new warfighting technologies or cope with increasingly complex personnel problems, staff officers who are controlled by the bureaucracy rather than controlling it, and senior level decisionmakers who are captives of institutional decisionmaking processes. We are already facing these problems to some extent, and the trend is clearly increasing.

The key to effective long-term leadership in this new environment is a professional development process

the Joint Chiefs should adopt a comprehensive development concept to guide efforts to educate officers

that rewards officers who acquire the right generalist skills and experience. Those who have been assigned outside their services are better equipped to plan, coordinate, and direct integrated forces. A second language and ability to relate to diverse cultures are also assets. Officers with these skills can directly lead multinational units and build personal relationships that would otherwise depend on junior for-

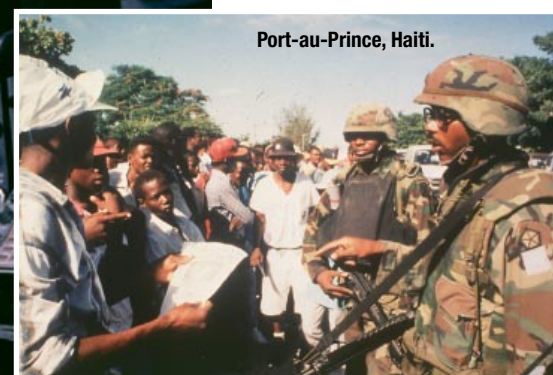
eign area specialists. The same is true for first-hand experience in information warfare and the budget process. Leaders with a background in these matters will have the knowledge to remain proactive decisionmakers. The rest will find institutional bureaucracies identifying critical issues, determining alternatives, and framing decisions for them.

Recommendations

First, the Chairman and the Joint Chiefs should set specific long-term goals for developing future generations of leadership. Second, the Chairman should direct the senior and intermediate colleges to undertake a joint study of long-term leadership requirements. Third, the Joint Chiefs should adopt a comprehensive development concept to guide efforts to educate and train officers. Fourth, appropriate service commands should publish leadership development guides focused on 21st century requirements—not career specific, but a roadmap for becoming a “gifted generalist.” Fifth, the Joint Staff should work with the services and other DOD components to increase the number of cross-service,

career-broadening assignments at all levels. This should be a reciprocal exchange of operational as well as staff positions. Since it will not be easy to achieve, the Chairman should champion this initiative. Sixth, leadership development should be on the agenda of all senior level planning sessions held throughout the Armed Forces. Without the active and ongoing direction of today’s top leadership the development of tomorrow’s leaders will simply default to the status quo.

The world is rapidly changing. If the U.S. military is to remain the world’s most capable and respected fighting force in the 21st century and beyond, future leadership teams will require each member to bring an unprecedented range of both skills and experience to the overall mission. The leadership team of 2025 is being created now. It will mature over the next three decades. What we need is a clear development concept to guide its progress toward 2025. **JFQ**



2nd Marine Division (M.T. Huff)

U.S. Air Force (Tana R. Hamilton)

General Dwight David Eisenhower

(1890–1969)

Chief of Staff, U.S. Army

VITA

Born in Denison, Texas; graduated from Military Academy (1915); served in 19th Infantry (1915–17); 57th Infantry and instructor, Forts Oglethorpe and Leavenworth (1917–18); commander, tank corps, Camp Colt (1918–19); commander, heavy tank brigade; infantry tank school, Camp Meade (1919–21); commander, 301st tank battalion (1921–22); executive officer, 20th Infantry, Panama (1922–24); Command and General Staff School (1926); Army War College (1928); office of the assistant secretary of war and Army Industrial College (1929–33); aide to MacArthur (1933–35); military adviser to Philippine government (1935–39); executive officer, 15th Infantry Division, Fort Ord; chief of staff, 3^d Division, IX Corps, and Third Army (1940–42); chief, war plans division, and assistant chief of staff, operations division, War Department; commanding general, European Theater (1942); commander, U.S. Forces, North Africa landings; commander in chief of Allied operations in Italy, Sicily, and North Africa (1942–43); supreme commander, Allied Expeditionary Forces, Western Europe (1944–45); promoted to General of the Army (1944); military governor, American occupation zone, Germany (1945); chief of staff, U.S. Army (1945–48); president, Columbia University (1948–50); supreme allied commander, NATO (1950–52); President of the United States of America (1953–61); died in Washington.



U.S. Army Center of Military History

... separate ground, sea, and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all services, as one single concerted effort. Peacetime preparatory and organizational activity must conform to this fact. Strategic and tactical planning must be completely unified, combat forces organized into unified commands, each equipped with the most efficient weapons systems that science can develop, singly led and prepared to fight as one, regardless of service.

—President Dwight D. Eisenhower
Message to Congress (April 3, 1958)

Portrait by
Nicodemus Hufford.

Exercises

BALTIC CHALLENGE

Adazi military base, near the Latvian capital of Riga, was the site of a U.S.-Baltic training exercise on July 11-18. The main objective of the exercise, Baltic Challenge '96, was to improve interoperability between U.S. and Baltic forces for peace operations. More than 700 troops from Estonia, Latvia, Lithuania, and the United States assembled for the first land exercise in the Baltics under the NATO Partnership for Peace program.

Forces included Estonian, Latvian, and Lithuanian army troops as well as Latvian national guardsmen. Among the U.S. soldiers were members of the Army National Guard from Maryland, Michigan, and Pennsylvania. Additional U.S. involvement included members of the Navy, Marines, and Air Force. Observers came from nearby states such as Russia and Finland as well as Germany, Norway, and Uzbekistan.

Training included convoy operations, land mine awareness, check point activities, counter-sniper exercises, weapons demonstrations, and medical/CPR training. In order to build trust and friendship, troops were housed together and shared dining facilities. Barracks, gutted by exiting Russian forces, were repaired by Navy Seabees with the assistance of 45 Latvian soldiers.

The significance of Baltic Challenge was noted by Latvian President Guntis Ulmanis during a ceremony on July 11 when he said that besides serving Latvian interests, the exercise promoted a united Europe and exhibited a response to the post-Cold War world situation. **JFQ**

COOPERATIVE GUARD

U.S. Atlantic Command hosted Cooperative Guard 3—a Partnership for Peace (PFP) exercise—at the Joint Training, Analysis, and Simulation Center in Suffolk, Virginia, on September 23-30. The exercise was presented in cooperation with Allied Forces Central Europe. Nearly 100 military personnel from 13 PFP nations including Austria, Bulgaria, Czech Republic, Estonia, Finland, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Slovakia, and Sweden joined in the exercise together with participants from the United States and other NATO countries.

The primary focus of the exercise involved training to set up a combined

JTF headquarters such as those used to manage theater operations in Haiti, Bosnia, and elsewhere. The instruction dealt with international and operational law, information management, peace support operations, political-military issues, multinational logistics, mission analysis, operational order development, and special operations in both peace-keeping and peace enforcement. **JFQ**

Doctrine

JOINT PUBS UPDATE

The following titles have been recently approved through the joint doctrine development process:

■ Joint Pub 3-10, *Doctrine for Joint Rear Area Operations*, contains guidance on planning and executing joint rear area operations in terms of major functions of infrastructure development, communications, intelligence, security, combat operations, sustainment, survivability, movements, area management, and host nation support (May 28, 1996).

■ Joint Pub 3-58, *Joint Doctrine for Military Deception*, offers guidance and principles for planning and executing military deception operations including planning, coordinating, and supervising their execution by joint force and component staffs (May 31, 1996).

■ Joint Pub 4-01.3, *Joint Tactics, Techniques, and Procedures (JTTP) for Movement Control*, deals with planning, routing, scheduling, controlling, in-transit visibility, reception, and onward movement of personnel, units, equipment, and supplies over lines of communication for joint operations (June 21, 1996).

■ Joint Pub 4-01.5, *Joint Tactics, Techniques, and Procedures (JTTP) for Water Terminal Operations*, covers planning requirements, responsibilities, and guidance for command and control of water terminal handling facilities to support a joint force (June 21, 1996).

■ Joint Pub 3-53, *Doctrine for Joint Psychological Operations*, treats planning and conduct of joint psychological operations to include concepts, capabilities, objectives, and responsibilities (July 10, 1996).

■ Joint Pub 4-01.1, *Joint Tactics, Techniques, and Procedures (JTTP) for Airlift Support to Joint Operations*, addresses airlift capabilities including potential contributions of common-user airlift, use of operational support airlift, and airlift and airlift support operations such as responsibilities at airfields, drop zones, assault zones, and landing zones (July 20, 1996).

■ Joint Pub 3-10.1, *Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense*, furnishes guidance to JFCs and staffs on base and base cluster defense in a joint rear area under all threat conditions outside the United States (July 23, 1996).

■ Joint Pub 4-06, *Joint Tactics, Techniques, and Procedures (JTTP) for Mortuary Affairs in Joint Operations*, guides planning and execution of mortuary affairs in support of a joint force (August 28, 1996).

■ Joint Pub 3-50.3, *Joint Doctrine for Evacuation and Recovery*, covers procedures and capabilities for assisting and recovering combat personnel isolated in hostile or denied territory (September 6, 1996).

■ Joint Pub 6-02, *Joint Doctrine for Operational/Tactical Command, Control, and Communications Systems*, focuses on joint doctrine for employing operational/tactical C³ systems in support of a joint force (October 1, 1996).

■ Joint Pub 3-08, *Interagency Coordination during Joint Operations*, describes the strategic context of coordination between government agencies including basic principles that a JFC may employ to gain interagency cooperation for accomplishing the mission (October 9, 1996).

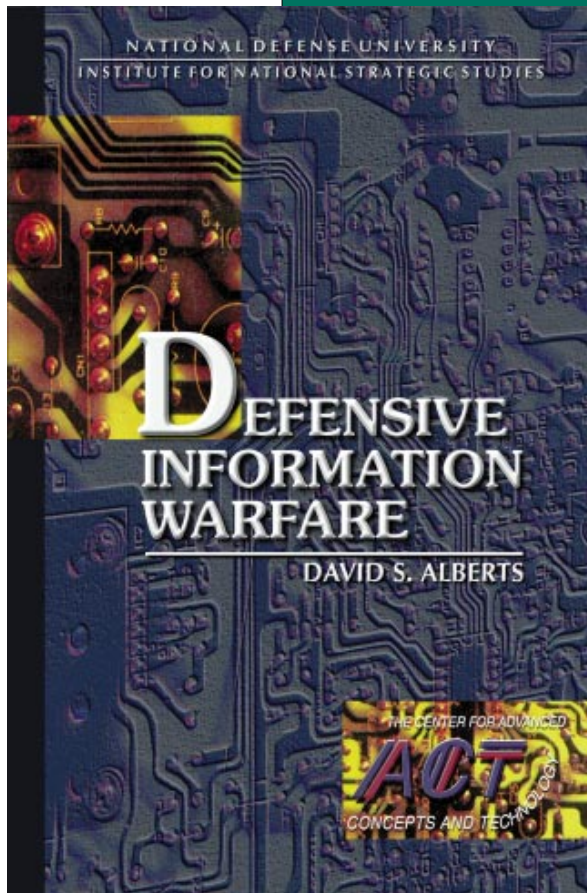
■ Joint Pub 4-01.2, *Joint Tactics, Techniques, and Procedures (JTTP) for Sealift Support to Joint Operations*, identifies, describes, and defines sealift forces including organizations for command and control, responsibilities of combatant commands, procedures for generating assets and requirements, and doctrine for planning and employment (October 9, 1996). **JFQ**

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JFQ

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Defensive Information Warfare

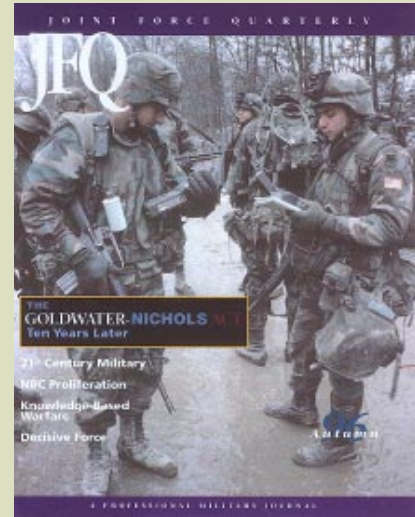
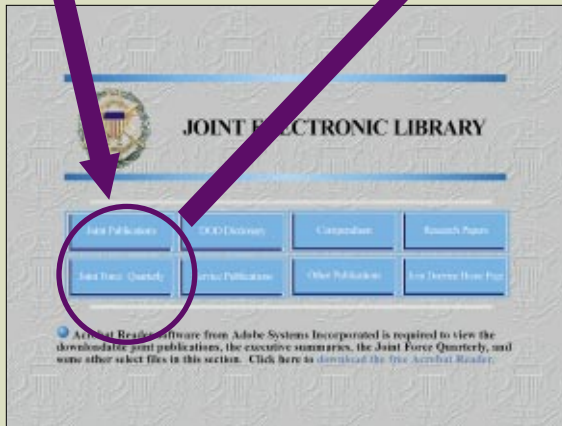
by David S. Alberts

The Directorate of Advanced Concepts, Technologies, and Information Strategies (ACTIS) in the Institute for National Strategic Studies at the National Defense University publishes extensively on information warfare, dominant battlespace, coalition command and control for peace operations, et al.

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NATIONAL CULTURE AND WARFARE—WHITHER DECISIVE FORCE

A Review Essay by

DAVID J. ANDRE

Decisive Force: The New American Way of War

by F.G. Hoffman

Westport, Connecticut: Praeger, 1996.

150 pp. \$52.95

[ISBN 0-275-95344-0]

Few subjects have more sharply divided military officers from political elites who lack combat experience than cultural influences on both our national style of war and on the kind and the degree of force best suited to U.S. interests. *Decisive Force: The New American Way of War* by F.G. Hoffman rekindles this debate. If he is correct, the chasm separating our civilian and military leaders may be widening. Hoffman's aim is to "trace the development and evaluate the merits of a 'New American Way of War' embodied in the Decisive Force concept." Three suppositions drive the book. First, that there is a new way of war that is subtly different from the one expounded by Russell Weigley in *The American Way of War: A History of United States Military Strategy and Policy*. Second, that the lessons of Vietnam and later were oversimplified or erroneous. Third, that civil-military relations are in "subliminal crisis" because of a long-term deterioration of understanding between the government and society at large.

Decisive Force surveys changes in our approach over the last few decades and traces their consequences for civil-military relations through case studies of Vietnam, Lebanon, Panama, and the Persian Gulf. While the book's conclusions are reasonable, they are remarkably anticlimactic. It seems as if the author, on reaching his final objective after a hard-fought campaign, has second thoughts on what he has done along the way.

Colonel David J. Andre, USA (Ret.), is a defense consultant and writer and formerly chaired the department of military strategy at the National War College.

Hoffman reminds us that the American style of war reflects a strategic culture—its history, geography, economy, et al.—that is, its collective learned sense of self. Not only does this culture determine a society's approach to warfare; it delimits the range of alternative styles. For example, Americans have been chided for not performing like the *Wehrmacht* or the Israeli Defense Force. Our Armed Forces have not conducted themselves like other militaries simply because collectively we are not of German or Israeli or any other single background. One's view of what Hoffman, Weigley, and others say about national culture, style in war, and use of force is strongly influenced by an internalized sense of just what makes us unique. Hoffman's synopsis of American political culture, military culture, and related desiderata provides some useful background.

Annihilation

The book's major argument is summed up in its first supposition: a new American way of war has emerged that is only subtly different from Weigley's annihilation conceptualization, said to have been operative from the Civil War through World War II. Hoffman traces Weigley's "concise taxonomy" of two strategies: annihilation, based on destruction of an enemy's military capability; and attrition, exhaustion, or erosion. Our Armed Forces, we are told, have preferred the former as have other militaries down through history; thus its place as the traditional American way of war. Hoffman observes that though this is "somewhat of an overgeneralization . . . it is a useful one."

Weigley devised his either/or taxonomy a quarter-century ago. As a way to introduce such a broad subject to rank amateurs this stark dichotomy may have something to recommend it. But it is less helpful in framing the debate among defense policymakers and military professionals.

Martin Blumenson observed that World War II was the last time—and one of only three in our history—when this Nation consciously pursued a policy of total victory (the others being the Civil War and Indian wars). Citing campaigns in North Africa, Sicily, Italy, Normandy, and elsewhere, Blumenson, writing in *Parameters* (Summer 1993), reaches a conclusion that is hard to reconcile with Weigley's earlier conception.

Surprisingly, the top Allied echelons only occasionally attempted to knock out the enemy. The basic Allied motive was instead geographical and territorial. The intention was

to overrun land and liberate [occupied] towns. . . . Seizing [enemy capitals], the Allies believed, was sure to win the war. On the way to the Axis capitals, the Allies defeated the enemy.

This approach seems removed from Grant and Sherman, the wellsprings of Weigley's annihilation model.

As theorists tend to impugn the destruction of enemy military capability through offensive action, a view well represented in *Decisive Force*, Blumenson concludes from a combined analysis of the European and Pacific theaters:

Ultimately, the drive toward the enemy capitals was empty. . . . What decided the outcome of the conflict in each theater was the destruction of the enemy forces. Had the Allies . . . bent their energies to that end from the beginning, chances are that they would have gained the final victory in Europe before 1945.

As with the so-called maneuver and attrition schools, annihilation and attrition are not just overgeneralizations; they are often misrepresentations of a complex reality which defies meaningful generalization. History teaches us that these constructs are not so much polar opposites, but rather only two cases among many. With enlightened leadership they have been executed simultaneously and sequentially and tailored at each level to suit the situation, all in a mutually reinforcing way.

Clausewitz stated that "in war, many roads lead to success." Listing several, to include the destruction of enemy forces, he cautioned that "if we reject a single one of them on theoretical grounds, we may as well reject all of them and lose contact with the real world."

In considering Weigley's austere bipolar model in light of what Clausewitz, Blumenson, and others have discerned, therefore, the limits of reductionism in the study of warfare are quickly reached. In the present case, for instance, it is concluded that exactly one of only two possible American ways of war, annihilation, has been superseded as the preferred way through something of a variation—and this from an author who expresses alarm at those who oversimplify war by resorting to mere shibboleths such as setting "clear political objectives." In all fairness, Weigley's original taxonomy perhaps should have been refined in view of contributions by others for use in serious comparative work such as Hoffman's.



U.S. Air Force

Thus Weigley's concise taxonomy and annihilation model are at best of limited analytical value as referents for this postulation of national style in war at present.

Decisive Force

Hoffman opines that "the most distinctive element of [the new American way of war] is the principle of Decisive Force." Weigley aside, this point logically requires not only clearly defining decisive force but demonstrating its newness and identifying alternative principles. To his credit, the author leads us partway down this challenging analytic path. He draws a succinct description of decisive force from the *National Military Strategy of the United States* produced in 1992 by the Joint Staff when Colin Powell was Chairman.

Once a decision in favor of military action is made, half-measures and confused objectives may lengthen a conflict, which can waste lives and resources, divide the Nation, and lead to defeat. Therefore, an essential element of our national military strategy is the ability to rapidly assemble the forces needed to win—a concept of applying decisive force to overwhelm adversaries and thereby terminate conflicts swiftly with a minimum loss of life.

To critics, the doctrine of decisive force insisted on "massive and unequivocal application of combat power." The nay sayers included then Secretary of Defense Les Aspin who, by linking it with the six criteria for using combat forces articulated by former Secretary Caspar

Weinberger, saw decisive force as a "checklist approach" and derided its "inapplicability to the challenges of maintaining peace in the post-Cold War world." Hoffman cites only one wargame scenario which indicates that introducing forces quickly to establish an "overwhelming force capability" can cause a crisis-management situation to "escalate faster and farther than intended." Games may suggest many things, but American intervention in Haiti and Bosnia demonstrate that major employments can also quickly stabilize a dangerous situation.

Notwithstanding the official interpretation previously mentioned, decisive force is a much misused and maligned term of art. General Powell believes it has been misinterpreted, pointing out that it neither mandates a fixed approach nor lays down prescriptive rules.

Aside from execution, the best indicator of the preferred military approach to operations is published doctrine. Here Hoffman states unequivocally that, if the Armed Forces are adopting an all or nothing attitude with respect to the use of force, it is not apparent in service or joint doctrine promulgated since the Gulf War. Quite the contrary.

The May 1995 edition of Army Field Manual 100-7, *Decisive Force: The Army in Theater Operations*, has an evocative title. This is the Army doctrinal manual on operational art focused at the operational level. If the Army were going to counter

the worst fears of critics of decisive force, this would be the place. But as inferred from its text, decisive force appears to imply that the Army and its constituent units are a decisive force. FM 100-7 does call for preventing long-term defensive operations by transitioning when practicable to offensive operations that overwhelm and paralyze an enemy by decisive simultaneous strikes throughout the depth of the battlespace. It reminds us that this approach resulted in minimal losses and a rapid strategic conclusion during Just Cause.

But FM 100-7 hardly reflects a "penchant for total warfare" or insists on the "massive and unequivocal application of combat power"—certainly not in every operational outing—nor does it add to the crisis by encouraging Army leaders to dispute civilian authority over how much force is appropriate in a given situation. On the contrary. This field manual explicitly addresses the reality of limited resources, the need to phase complex operations (to segment and sequence in time and space based on changes in the nature of the total effort), avoiding enemy strengths by the indirect approach, even precluding actual combat (such as through a stand-alone information war action). Every chapter and the appendix discuss military operations other than war.

In sum, accepting the often overwrought understanding by critics of decisive force requires a leap of logic and fails to note what the military is telling itself and actually does. Unless used with some precision within the context of particular cases and then discussed alongside legitimate alternative styles of operation, the term has little of practical consequence.

Is It Really New?

Decisive force is what makes the new American way of war *new*, goes Hoffman's line of reasoning. For the sake of argument, let us take decisive force at face value in terms of its official definition. Just how new an idea is this?

Without rehearsing American military history, and not promoting the idea that the American military preferred strategies of annihilation up through World War II, there is little novel, per se, about the way of war introduced in *Decisive Force*—certainly nothing to indicate the kind of historical discontinuity one normally identifies to support such a claim.

Looking just at World War II, the attack on Pearl Harbor fixated the country on mobilizing to win. Citing daily journals, memoirs, and official histories,

USS Franklin D. Roosevelt in the Gulf of Tonkin, 1966.



U.S. Navy

Crossing the Sava River, December 31, 1995.



U.S. Air Force (Stacey Wyrzykowski)

Blumenson and others have described decisions on strategy and theater operations, involving leaders from the President to field commanders, that turned largely on ending the war quickly yet conclusively, but without unnecessary risk to Allied forces. This led the Allies to play it cautious and shy away from Can-nae-type battles and otherwise miss opportunities to land decisive blows, a fact often lamented by General George Patton. "Only . . . Patton understood the vital need to surround and destroy the Germans at Argentan-Falaise, at the Seine River, or at the Somme River," Blumenson determined some years ago.

There is historical precedent before Vietnam, then, for the U.S. embrace of decisive force doctrine, as briefly outlined in the 1992 *National Military Strategy*. But if *Decisive Force* does not define a new way of war, is there anything in this book that at least differs from past practice? What has changed, Hoffman confirms, is the emergence of a different way of preparing for war well before the event.

Vietnam carried the military, especially the Army, to the brink of institutional insolvency. After the war, this reviewer is reminded that the institutional Army—as contrasted with some of its constituents—did not, as Hoffman maintains, push Vietnam "out of its consciousness" to focus "therapeutically on . . . the Soviet Union." Rather, along with the other services, especially the Marine Corps, it did what the critics had long castigated it for not doing, at least well. As recent works attest, it studied its own history, including Vietnam, as well

as other conflicts, mainly the Soviet Union and Israel. It pondered its very being as a formerly revered institution responsible for national security. Then it applied what it learned, beginning with a vision of where it had to go to meet its sworn obligation to the Nation.

Apparently, much of this pain was for naught since, in the view of Hoffman and others, our military committed original sin by not getting its major lessons quite right. Whatever the critics say about decisive force or other concerns, the era between the fall of Saigon and the Gulf War saw a sweeping institutional transformation that served the United States and its global interests.

Moreover, technology is increasingly lending a different meaning to "reach out and touch someone." But whether this constitutes a new American way of war is a matter of interpretation. It largely turns on whether Desert Storm is viewed as the last war of the old regime or the first of the new. Even five years on the weight of evidence, including official statements by those leading institutional change in the services and the joint arena, suggests that the military is living largely in the past. Albeit with some reassuring exceptions, it still does business more or less as usual.

The rapid pace of technological change is manifest. But the kind of historical discontinuity that usually heralds a truly new way of war will require a more widespread unfolding and, perhaps more challenging, grass-roots acceptance within the military of what has been termed an ongoing revolution in military affairs (RMA), including operational and organizational concepts that more fully exploit new technology.

So the really new way of war based on RMA has yet to emerge, at least full blown. But it inexorably approaches. It still remains to be seen whether the United States will continue to take the lead in conceiving, shaping, and exploiting it.

Alternatives

To argue that the military should abandon its current *preferred* style in war, however it is characterized, requires presenting legitimate alternatives, meaning they are:

- demonstrably different
- readily understandable, not just by theoreticians
- in keeping with American strategic culture
- reflective of the correct lessons of history, including the judgment that more force (not necessarily just numerically larger or even physically applied) usually brings a quicker conclusion and that accomplishing missions without resort to hostilities (as the original heavy Implementation Force in Bosnia) leads to fewer American losses consistent with the outcome sought
- able to be taught and learned in professional schools
- readily operationalized in a military theater.

Any way of war that cannot satisfy these guidelines is unlikely to pass muster with the professional military or public.

At least as contained in *Decisive Force* and listed by Clausewitz, no authority known to this reviewer has advanced a genuine alternative to the current preferred manner of operating militarily, much less a menu of choices. What has often been offered instead is philosophical hand wringing over terms like decisive force, opinions on how the military

should not apply force or otherwise not conduct itself in this or that contingency, and ad hominem attacks against the Armed Forces. The court of professional and public opinion thus awaits legitimate alternative styles.

Other Issues

On balance, *Decisive Force* attempts too much. Discussing the book's structure, Hoffman refers in his introduction not only to the three suppositions and four-stage assessment of the case studies but to other dimensions: emphasis, focus, elements, evaluations, explorations, goals, et al. The result is an uneven book in what it tries to accomplish, much less integrate. The author's goal was "to contribute to ensuring that the decision [to use force] is made wisely and well." But since he deliberately avoided discerning the *correct* military lessons that should have been learned in Vietnam and afterward (versus accumulated *myths*), or even stating why the lessons were so wrongheaded, one wonders how he hoped to succeed.

Hoffman appears to have tried to write two books in one. Looking again at his three major suppositions, the first involves a new way of war, the last a "subliminal crisis" in civil-military relations. The second—the poor quality of military institutional learning after Vietnam—generally is tied to the others. But the first and third, and especially the supporting rationale, do not dovetail well. The author might better have deferred the new way of war issue and dealt solely with the connection between military institutional learning and civil-military relations after Vietnam.

As it is, while replete with anecdotes featuring differing views between the government and the media, the book falls short of making a compelling case for a more general crisis, subliminal or otherwise. Indeed, although recognizing that a state of civil-military nirvana goes unrealized, the reader is challenged to understand just what the problem is, much less how to diffuse it.

For example, Vietnam-era military leaders are vilified for not articulating their misgivings about strategy or achieving policy objectives at reasonable cost. At the same time, post-Vietnam leaders are accused of fighting the problem if not of outright disloyalty when, after weighing the chances of success in relation to costs and risks, they show little enthusiasm for particular overseas ventures—even before the President makes a final decision. The author then splits the difference: "military leaders must be willing

to tell their superiors what they *need* to hear, not what they want to tell them or what the civilian leader would like to hear." He would have served his readers better by proposing practical guidelines for mitigating the civil-military friction which he details.

There is a more serious related difficulty. As in Weigley's annihilation/attrition dichotomy, the civil/military dichotomy in *Decisive Force* often oversimplifies reality, especially as it relates to major stakeholders in the recurring debate over whether to commit forces to trouble spots overseas. Hoffman seems to recognize only two: the military and "the Nation" or "society."

In reality, there are at least three major parties to this most visceral issue of state, all derivative of Clausewitz's "remarkable trinity": the people (not uncommonly mirrored by Congress when and if it summons the courage to commit itself institutionally), the Army, and the government (political leaders and supportive opinion elites). Clausewitz warns that "a theory that ignores any one of them or seeks to fix an arbitrary relationship between them would conflict with reality to such an extent that for this reason alone it would be totally useless."

Hoffman nods toward the trinity by referring to an apparently faulty lesson of the third leg (the people) as the military learned in Vietnam: "War is a shared responsibility between the people, the government, and the military." Rather than pursue this idea, however, he repeatedly suggests that disagreements over committing forces—and civil-military divisions, more generally—involve the military on one side and the rest of society on the other. He at least eschews the thinly veiled contempt found in *Intervention: The Use of American Military Force in the Post-Cold War World* by Richard Haas, who in noting "there is declining popular and congressional support for military interventions" asserts that this support is "desirable, but not necessary."

Polling reflects wide differences between the general public and elites—including the current administration, the extra-governmental foreign policy establishment, and media—over international affairs, especially the use of U.S. ground forces abroad. Clausewitz aside, Central America in the early 1980s, Lebanon in 1983–84, Somalia, and Bosnia today reveal that ordinary citizens are not convinced that military power should be committed for purely political purposes,

especially when a foreign state appears deeply divided over its own national interests. At the least, they expect an equitable sharing of the burden among those with a stake in each case, especially major powers and relevant regional states.

Hoffman acknowledges that the military, once committed, realizes it is they who will go in harm's way and be hung out to dry if things go awry—even if an operation is ill-conceived from first principles by their temporary political masters who, while legally sharing responsibility, are seldom held accountable. Not surprisingly, the military wants to be heard well before any final decision. While perhaps new and disturbing to some, this has little to do with a new way of war.

When the issue of employing combat forces abroad is contentious, as seems often the case of late, one seldom finds professional military officers aligned against the other two elements of the Clausewitzian trinity. Rather, it is the executive branch and much of the rest of the establishment elite that commonly finds itself isolated and seeking broader support.

"The passions that are to be kindled in war must already be inherent in the people," said Clausewitz. That this obtains so rarely today says less regarding any division in public and military attitudes than about the Nation's pragmatic grasp of the reordered post-Cold War world and their perceptions of the judgment and moral standing of those David Halberstam once called "the best and the brightest." They become wary when elites discover *vital* favored projects that are at best secondary national interests, make fine distinctions regarding what constitutes war or combat, and seem too ready to draw upon the national treasure, including American lives.

This Nation has had an "all-volunteer" military since 1973. But this term conceals a reality seldom aired publicly but of which our military leaders and citizenry are keenly aware: America's yawning and seemingly widening class division and the ways it is reflected in the Armed Forces as well as the bastions of privilege and corridors of power.

In the military today, the sons and daughters of the poor, the working class, and people of color predominate. When sent in harm's way, they go at the behest of a class increasingly made up and led by those who avoided the draft or service in Vietnam through legal or other means and by those who, absent a draft, have never worn a uniform. Moreover, they are rarely accompanied by scions of the

Soldiers loading onto helicopter, Just Cause.



U.S. Army

socio-economically advantaged, educated at institutions whose alumni over the last few decades have not often made sacrifices for the Nation—especially the ultimate sacrifice.

This, then, is another new and perhaps defining component of the post-Vietnam strategic calculus, but one conspicuously absent from *Decisive Force*. This factor as much as any other may most poignantly separate the military and the rest of society from their government and other elites in the debate over whether to involve the Armed Forces in crises abroad.

Reducing our dependence on what is basically an economic draft—without reinstating the pre-1973 conscription politicians were morally challenged to administer fairly—would help to produce a truly new American way of war. This suggests a policy agenda worthy of attention in coming years.

Parting Thoughts

Decisive Force is well researched, literate, engaging, and often provocative. Except for its citation of David Halberstam's *The Best and the Brightest* and perhaps a few other ersatz sources, the bibliography is useful. The index is complete and mostly accurate, although some references to key topics in the introduction are incorrect. Notes follow each chapter—and though they allude to familiar political, scholarly, and journalistic

sources that largely argue against decisive force—the views of Colin Powell, Harry Summers, and other authorities to the debate are also well rehearsed.

Decisive Force has real value that goes beyond informing a reader and provoking serious thought. The cases have merit, albeit perhaps not for the reason intended. They offer structured, issue-oriented, historical views of intervention: the nexus of strategic culture, institutional learning, and civil-military relations in the post-Vietnam and post-Cold War eras. Not surprisingly, many insights and judgments differ, at times substantially, from conventional military wisdom.

Some aspects of these cases are likely to raise the brows, if not incite the wrath, of readers who served at the pointed end of the spear. In particular, Vietnam veterans are forewarned to delve warily into what *Decisive Force* says about their war. The same goes for those who hold strong views about the results of our involvement in Lebanon in 1982–84. But when consulted together with material that offers other viewpoints, the cases will enrich learning in staff and war colleges as well as national security studies programs within academe.

Unfortunately the book was completed before the Somalia relief operation reached its tragic finale in October 1992, when 18 rangers died and 75 were wounded while exercising something far short of decisive force. Subsequent criticism hastened America's withdrawal and led to the fall of Secretary Aspin and a reappraisal of military support for peace operations. One could usefully weigh the key judgments in *Decisive Force* against that debacle in Mogadishu. The same holds for the more recent U.S.-led Implementation Force in Bosnia, where an American armored division, with hundreds of 70-ton tanks and fighting vehicles and augmented by combat forces from other nations, appears to have successfully employed decisive force in a dangerous, politically sensitive peacemaking role.

Hoffman brings closure by assessing how well the concept of decisive force supports the major purposes of military power: deterrence, defense, decisive influence, and diplomatic support. Cautioning that one should differentiate between decisive force as applied to warfighting or violent means and the kind of involvement often associated with low intensity conflict, he concludes that, though derived from somewhat faulty lessons, decisive force does support the purposes of military power, is consistent with the American strategic culture

and its way of war, and is not a direct challenge to civil-military relations.

Whether one agrees with the book's appraisal of the often dubious quality of professional military education since Vietnam, Hoffman aptly describes in few words something of what staff and war colleges assume they have learned. This is important not only for the sake of the subject at hand, but for the state of civil-military relations. The author himself surmises that, while his focus was not to distill "correct" lessons from case studies, those lessons which the military believes it learned from these experiences are now reflected in a *new* American way of war.

"Ways of war" typologies aside, the military learns from its experience and, as has been true for almost three decades, might reasonably be expected to continue to act based that experience. The author as well as this reviewer believe that prudent civilian leaders and others who work with the Armed Forces should at least try to understand this defining body of lore.

Decisive Force calls attention to contentious issues and suggests that the best one might expect is that the parties involved try to appreciate each other's point of view even if they only agree to disagree. Whatever the lessons of the past, the future is something that military and civilian leaders can jointly begin to influence, shape, define, and bring about now.

We began by observing that issues raised in *Decisive Force* commonly find political elites and the professional military eyeing each other warily across a widening chasm. One hopes that the message of this book is interjected into a continuing dialog that leads to consensus which serves both the Nation and the Armed Forces well.

JFQ

TO WAGE A WAR OF WORDS

A Book Review by
CARNES LORD

The Propaganda Warriors: America's Crusade Against Nazi Germany

by Clayton D. Laurie
Lawrence, Kansas:

University Press of Kansas, 1996.
335 pp. \$35.00
[ISBN 0-7006-0765-X]

Anyone who doubts that the experience of this Nation in World War II remains relevant to contemporary issues should consult *The Propaganda Warriors*. The story of American propaganda during that conflict is on one level a sidebar to the domestic policy debates of the New Deal and, as such, of interest primarily to historians. On another level, however, it is a remarkably instructive guide to the cultural eddies and bureaucratic shoals that lie hidden in wait for unwary psychological warriors even today. Its lessons deserve to be pondered.

Americans engaged in international affairs in the late 1930s were struck by the extent and effectiveness of Nazi propaganda and Western unpreparedness in this sphere. Nazi indoctrination, of course, began at home where it played a unique role in shaping and sustaining political identity. But equally impressive was its use as part of an integrated system of political and psychological warfare designed to overthrow foreign regimes with minimal force. The threat of "fifth columns" fomented by external propaganda and supported by clandestine military and intelligence operations seemed very real after the Nazi coup in Austria and the dismemberment of Czechoslovakia. A few Americans, however, found such actions to be more than a threat to be countered. They perceived a model for offensive operations against the Axis powers themselves. Foremost among these was William J. ("Wild Bill") Donovan who became wartime director of the Office of Strategic Services (OSS) and later spiritual father of the Central Intelligence Agency.

The climate of national opinion, however, was far from sympathetic to such a view. Even interventionist-minded



U.S. Navy (Terry Mitchell)

Tactical PSYOP in Somali marketplace.

Americans doubted that the United States should, or needed to, oppose the Nazis with their own weapons; yet no alternative concept of foreign propaganda had gained wide acceptance. Early attention focused primarily on countering the much exaggerated threat of fifth column activities on the homefront and shoring up domestic morale. At the same time, memories of the notorious Creel Committee of World War I made such efforts politically controversial, and the Roosevelt administration was slow to act in an area which it feared might offend isolationist and Republican sensibilities.

In spite of undeniable successes, the American propaganda effort between 1941 and 1944 was gravely hampered by conceptual confusion, bureaucratic infighting, and indecision at the top. As Clayton Laurie demonstrates in a well-researched narrative, the nub of the problem was that no fewer than three competing philosophies of propaganda struggled for preeminence in a constantly changing organizational framework and with the virtual absence of workable doctrinal guidance or presidential direction. The Donovan view of propaganda as a tool of subversive psychological or unconventional warfare competed with the position most closely identified with Robert Sherwood, a distinguished playwright and ardent New Dealer who eventually headed the overseas propaganda arm of the Office of War Information (OWI). For him, propaganda was to be based upon "truth" alone, and its overriding purpose

was to promote American-style democracy abroad. Still another approach was that of the Armed Forces, which had little use for propaganda of any kind except in the form of essentially tactical support for combat operations.

The story begins in earnest in mid-1941 when FDR appointed Donovan as coordinator of information (COI), with a broad if vague mandate to build an organization responsible not only for overseas propaganda but for strategic intelligence and counterintelligence, subversion, and special operations. Donovan recruited Sherwood, a presidential speech writer, as head of his propaganda section, the so-called Foreign Information Service (FIS). That agency, which Sherwood staffed largely with broadcasting and advertising executives, journalists, and intellectuals, in short order created the Voice of America (VOA) as well as a variety of other overt programs in other media (including films, magazines, pamphlets, posters)—all of which later found an institutional home in the U.S. Information Agency (USIA). But the Donovan-Sherwood partnership was intrinsically unstable and did not long survive after Pearl Harbor. With America's entry into the war, Donovan understood that COI would be entirely a function of its relationship with the defense establishment and pushed for placing it under military control. At the first meeting of the newly

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constituted Joint Chiefs of Staff in February 1942, the American members, under some pressure from their British colleagues, recognized the importance of psychological warfare and also the potential of COI as its organizational instrument. At the same time, fearing such a shift, Sherwood and his allies began to agitate for the removal of FIS from Donovan's purview. After months of inaction, FDR split the difference by agreeing to transfer COI to the military while creating OWI, an entity that combined FIS with those existing agencies geared to domestic information and morale needs. The journalist Elmer Davis assumed overall control of OWI, although Sherwood and his like-minded associates continued to dominate what was now called the overseas branch.

But Donovan's organization, reconstituted as OSS, was not ready to abandon propaganda entirely. Within six months of its creation in June 1942, OSS had set up a morale operations (MO) branch to realize Donovan's original vision of offensive psychological warfare to the extent it could be done without openly contesting the OWI mission. MO (according to recently declassified OSS records fully consulted by Laurie) conducted both "black" propaganda operations and an array of related deceptive or subversive activities such as rumor campaigns and forgeries designed to "incite and spread dissension, confusion, and disorder within enemy countries." After the D-Day landing it simulated German anti-regime organizations through black radio stations (such as *Soldatensender Calais*) and papers (such as *Das Neue Deutschland*) and even introduced "poison-pen" material into the German

postal system, among other unorthodox and ingenious operations.

In stark contrast to OWI and OSS, U.S. Army involvement was late, disorganized, and motivated as much by rivalry with these essentially civilian agencies as by a conviction in the value of the mission. Once American forces landed in North Africa in November 1942, a psychological warfare branch was established within Allied headquarters; but it was largely staffed by OWI and OSS civilians and quickly antagonized its military sponsors by actively undercutting the decision to cooperate with the Vichy French under Admiral Jean Darlan. This incident helped accelerate Army efforts to develop organic propaganda capabilities, initially in the form of mobile radio broadcast companies which came into theater in spring 1943. But civilians continued to play a prominent and semi-autonomous role in military propaganda while the respective spheres of responsibility of the Army, OSS, and OWI remained largely undefined.

Reacting mainly to OWI objections to OSS black propaganda, a rare presidential directive issued in March 1943 affirmed OWI primacy in overseas propaganda, while putting it firmly under military control in areas of actual or projected combat operations. But as OSS activities continued unaffected, the net result of this seeming bureaucratic OWI victory was actually a loss of authority. The decline of OWI was greatly accelerated following an incident in summer 1943 when a VOA broadcast greeted Mussolini's overthrow by describing Victor Emanuel as "a moronic little king" and the leader of the new regime, Marshal Badoglio, as "Goering-like" and an exemplary fascist. This created a

firestorm in the American press, with opponents of the administration charging that U.S. propaganda had been hijacked by New Deal ideologues and even communists. The President himself was forced to reassure the Nation that Allied dealings with the Badoglio regime would not call into question his unconditional surrender policy. All of this exacerbated internal OWI disputes and led to a purge of Sherwood's overseas OWI activities by Davis in early 1944, which probably saved the agency.

By the last year of the war, much of the dust from these quarrels had settled as advocates of competing philosophies and agencies learned to accommodate one another. Nevertheless, notable penalties had been paid, and underlying tensions and disagreement persisted. Indeed, it can hardly be doubted that they endure even today in successor agencies. One may certainly question whether the U.S. Government needs black propaganda capabilities in peacetime, but it is also true that the OSS legacy in this realm has fostered an overly rigid conceptualization of psychological warfare in nonintelligence organizations, especially in the Armed Forces. Particularly, given the new world opened up by contemporary information technologies, innovative threats as well as opportunities face the military, and it is becoming ever less tenable to understand psychological operations as an essentially tactical activity in support of conventional forces. At the same time, the history of OWI continues to limit the way we think about strategic overseas information and its relation to other agencies and missions. That strategic information activities must be part of autonomous agencies and reflect an essentially journalistic understanding of "truth" very much remains the credo of VOA and its parent organization, USIA. Such an approach, whatever its merits in peacetime, becomes questionable in a crisis or war. In future conflicts, moreover, it is unlikely that the United States will enjoy the luxury of several years of experimentation with doctrinal and organizational fixes, as happened in World War II. Problems in VOA coverage of the Gulf War, if nothing else, point to the need for radical improvement in interagency protocols for managing strategic information in the ambiguous and rapidly evolving security environment that we face today. For anyone attempting to sort through these complicated issues, *The Propaganda Warriors* holds much of interest. **JFQ**

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MIDDLE EASTERN MILITARY DYNAMICS

A Book Review by

PATRICK L. CLAWSON

The Powder Keg: An Intelligence Officer's Guide to Military Forces in the Middle East, 1996–2000.

by Edward B. Atkeson
Falls Church, Virginia: NOVA
Publications, 1996.
244 pp. \$14.95
[ISBN 0-9638692-5-6]

Edward Atkeson, a retired Army major general and intelligence officer, has expanded and updated an earlier work on the armed forces of the Middle East which surveyed the period 1991–96 in a new assessment which looks out to the year 2000. Despite some problems, *The Powder Keg* is a first-rate summary of the Middle East military landscape.

Atkeson focuses on qualitative factors and what will change over the years to come. He provides tables on expected equipment acquisitions by the major Middle East powers to 2000 and analyzes trends that will affect their military potential at the turn of the century. He also presents the sort of data on major units and equipment found in *The Military Balance* published annually by the International Institute for Strategic Studies and in the *Middle East Military Balance* issued by the Jaffee Center for Strategic Studies at Tel Aviv University, which tends to fall out of date quickly since it appears biannually. Equipment listings can be quite misleading for some Middle Eastern states. Evaluating how much of the fielded equipment is operational is vital to understanding the warfighting potential of the Iraqi and Iranian militaries, given that much of it has been worn down in combat or through lack of repair.

To be sure, Atkeson falls short of providing the level of detail given by Antony Cordesman in his books, but Cordesman does not offer the same systematic survey of future military potential, and his analysis sometimes is weighed down by distracting detail. Similarly, the excellent articles on specific

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F-15C at Azraq
Air Base, Jordan.



U.S. Air Force (Paul R. Carron)

countries which appear periodically in *Jane's Intelligence Review* or the three first-rate studies by Michael Eisenstadt of The Washington Institute for Near East Policy over the last four years on Syria, Iraq, and Iran provide more profound assessments of individual countries, but they are not designed as a survey of the entire region.

The Powder Keg contains detailed material on Israel, Iran, and the Arab states from Egypt to Iraq, including the Arabian peninsula. It excludes the fringes—Turkey and the Caucasus on the north; Sudan on the south; North Africa including Libya on the west; and Afghanistan and Pakistan on the east. The book's analysis also excludes non-state actors, such as the Kurdish groups which effectively control northern Iraq. Because of the limits established for his analysis, Atkeson does not discuss ongoing conflicts in the area, such as the Kurdish insurgencies in southeastern Turkey and northern Iraq or intermittent fighting in southern Lebanon between Hezbollah and Israel along with the South Lebanese Army.

More seriously, Atkeson largely ignores U.S. military presence in the Middle East. That is particularly unfortunate since this reviewer is unaware of any systematic presentation of American deployments in the region. Partly because of local sensitivities about this presence, partly because some deployments are classified as temporary (despite being six years old), and partly because of inertia that hinders acceptance of a changed world situation, the Pentagon underplays this presence. For instance, there is the materiel afloat off Diego Garcia, which is often omitted from analyses of equipment in the Middle East. The 20 ships stationed there contain stock for a heavy Army brigade and a Marine expeditionary force forward as well as other supplies. By 2000—the year for which

Atkeson forecasts—our Armed Forces may have sufficient equipment prepositioned in the Gulf or afloat nearby to allow deployment of two to three divisions in days. Moreover, the United States maintains substantial Air Force supplies in the area, and it may well remain there indefinitely at the new facilities being constructed at Prince Sultan Air Base in Al-Kharg, Saudi Arabia, where 6,000 airmen were deployed. Then there is the Fifth Fleet, which on many days has more ships than the Sixth Fleet. For that matter, the Sixth Fleet is as close to the Levant as it is to Central Europe and, so long as the United States has use of the Suez Canal, it is within a few days sailing of the Arabian peninsula. In short, the United States has become a major force in the region.

Atkeson deplores our enhanced presence in the region, for “as U.S. forces have diminished in size, the pool of troops available for extended commitment has been greatly reduced.” In the final chapter on policy implications, he goes on to argue, “U.S. forces should not be employed in locales where there is recognizable risk that they may be caught up international hostilities.” This is a peculiar statement: why does the Nation maintain Armed Forces if they are not to be employed for international hostilities? Furthermore, it puts the cart before the horse by addressing the question of deployments without first asking what interests in the region may necessitate the use of force. In fact, he is exactly 180 degrees off. Because Persian Gulf oil is central to the world economy and the United States would be gravely harmed if the vast income from that oil were monopolized by a power intensely hostile to America, preventing aggression in the region is a truly vital interest. The best

means to accomplish that is by forward presence to demonstrate that this Nation has the ability and will to make aggression unprofitable. If the United States had deployed such a presence in the Gulf in 1990, Operations Desert Shield/Desert Storm might have been unnecessary because Saddam would have understood that he could not get away with conquering Kuwait.

Atkeson presents comparative analyses of thirteen potential conflicts. He makes a number of important points about how such conflicts might unfold, such as the attractiveness to Israel, were it to want to hit Syria, of an attack up the Bekaa Valley in Lebanon, which could put Israeli forces on the high ground overlooking Damascus from the West. However, Atkeson is less clear on potential war objectives. The recent history of the Middle East demonstrates well that war can be used to further political goals rather than achieve battlefield victories. Egyptian forces may have been defeated by Israel in 1973, but the Egyptian attack changed the political situation, broke the diplomatic logjam, and began a process that led to complete Israeli withdrawal from the Sinai. Syria may be tempted to use the same technique, with an attack on the Golan designed not to hold territory but to change the diplomatic situation.

Atkeson's analysis of conflicts involving the Persian Gulf monarchies is not very useful. He does not discuss the cases of greatest importance to the United States, such as an Iraqi invasion of Kuwait or Iranian attacks on shipping through the Straits of Hormuz (perhaps because, as seen in 1987–88, Iran feels that its oil shipments are being impeded by an American boycott or some other development). He ignores the issue of how effective U.S. intervention would be and offers no analysis of the key questions for the United States: how quickly it could act compared to how much warning time there would be and how well our Gulf allies would fare until the arrival of substantial U.S. forces.

In short, Atkeson provides a useful analysis of what Middle East countries will acquire up through the year 2000, but he remains caught in the Cold War world in which our Armed Forces, occupied elsewhere, were not a major factor in the regional military balance. **JFQ**

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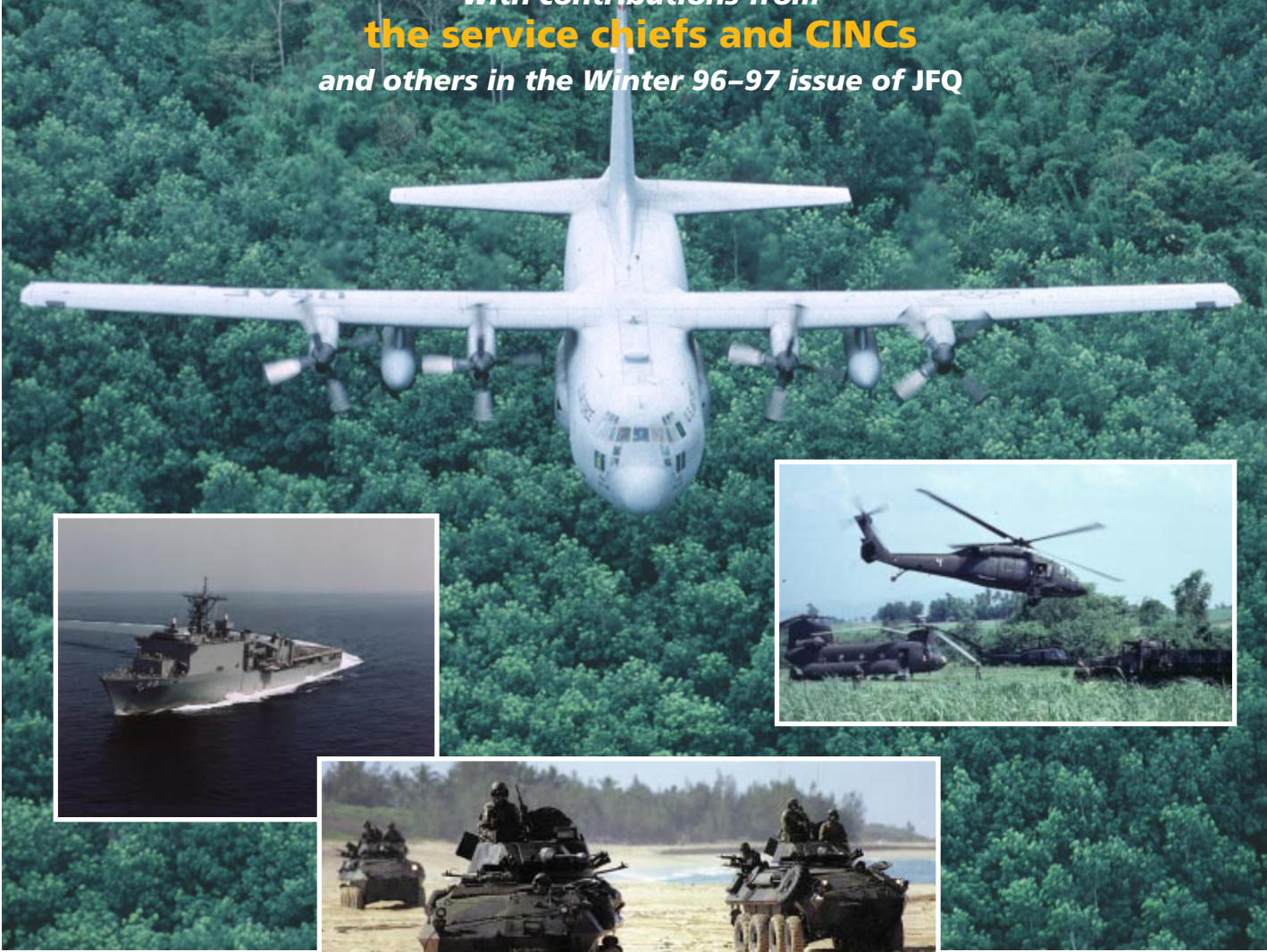
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