JOINT FORCE QUARTERLY

JFQ

AN ASSESSMENT OF JOINT DOCTRINE

Strategic Thinking

Unified Command Plan

Military Operations Other Than War

96 97 Winter

A PROFESSIONAL MILITARY JOURNAL

Those who are possessed of a definite body of doctrine and of deeply rooted convictions . . . will be in a much better position to deal with the shifts and surprises of daily affairs than those who are merely taking short views.

—Sir Winston Churchill

JFQ

A Word from the Chairman

DOD (Helene Stikkel)

Since I last addressed *Joint Vision 2010* in the pages of *JFQ*, it has stimulated a good deal of discussion and healthy debate. I'm particularly heartened by the spirited professional dialog that is helping to create a better understanding of both joint and service capabilities. The JFQ Forum in this issue, which is focused on joint doctrine, enlarges that debate and provides an opportunity to reexamine the basic precepts and the implementation of *JV 2010*.

I would like to offer a perspective on some points that have emerged from this discussion. First, the key operational concepts in *JV 2010* are not limited to mid- or high-intensity conflict. They apply across the full range of military operations, from peace operations to warfare at the highest level of intensity. Full spectrum dominance—from the high to low end—is essential for us to remain the dominant fighting force in the world. Second, no combatant command or individual service should perceive itself in terms of a single operational concept. The concepts in *JV 2010* require synergism based on efforts by all services. Third, technological advancements are vital to the operational concepts, but they share center stage with our dedicated and quality people.

the key operational concepts in *JV 2010* are not limited to mid- or high-intensity conflict

Full Spectrum Dominance

When the development of *JV 2010* began two years ago, we focused our attention on the premise that technological innovations could dramatically alter the conduct of war. That point was voiced in many sources, including the *Joint Strategy Review* (*JSR*) in 1994. I have just approved and released the classified 1996 version of that review. *JSR 96*, which provides an updated analysis of the trends which are likely to shape our future strategic environment, posits that until 2010 the Nation will continue to confront a range of threats—from terrorists to rogue states with weapons of mass destruction to potent regional powers. Beyond 2010, we may even face peer

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The front inside cover shows carrier flight deck crew rigging barricade (U.S. Navy/Nathan Curtis), Air Force navigators plotting course for refueling mission (U.S. Air Force/Paul Caron), Ranger on patrol in Haiti (U.S. Army/Greg Scott), and marines disembarking at Guantanamo Bay (U.S. Air Force/Vince Jones).

The back inside cover captures marines conducting hydro reconnaissance operations (U.S. Navy/Robert S. Shanks).

The back cover depicts Air Force and Marine Corps fighters over Venice, Italy, in support of Deny Flight (U.S. Air Force/Jamie Bowman), 10th Special Forces securing American embassy, Monrovia, during evacuation (U.S. Air Force/Richard M. Heilman), and SH-60H flying astern *USS Theodore Roosevelt* in Mediterranean (U.S. Navy/James E. Perkins).

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Joint Force Quarterly

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(continued from page 1)

competitors or new global powers. Overall, the future environment will be at least as challenging as today's; and it still will be as important to prevent and deter conflict as to be ready to fight and win wars.

JV 2010 complements the latest *JSR*. While that review describes the likely environment of the future, *JV 2010* presents key operational concepts: dominant maneuver, precision engagement, full-dimensional protection, and focused logistics. These four concepts will enable joint forces to accomplish any mission that arises in the strategic environment. They are also applicable across the spectrum of operations described in *JSR 96*.

Bosnia illustrates these emerging concepts and how capabilities designed for one strategic need can be adapted for another. We deployed a force that was prepared to execute high intensity wartime tasks. And it is our conventional combat power that became, and remains today, the backbone of peacekeeping efforts. The Implementation Force controlled the situation and battlespace with dispersed units which is a good example of the emerging concept of dominant maneuver.

Empowered by information superiority, this force was positioned in a manner that enabled it to respond rapidly to crises anywhere in the area of operations. A robust intelligence system, with the Predator and the joint surveillance target attack radar system, ensured that operational and tactical commanders received high levels of shared situational awareness and early warning.

Similarly, precision engagement was evident in Bosnia. Commanders were able to employ the right force to achieve the required effect. Whether threatening to use high technology weapons or employ non-lethal capabilities with military police, civil affairs, and psychological operations units, the desired effect was achieved: the opposing factions were convinced to end the violence or risk decisive defeat.

Overall in Bosnia, unified joint forces achieved full spectrum dominance by massing effects from widely dispersed elements of all services. Furthermore, despite the fact that our forces were originally trained and equipped to conduct large scale combat operations, their skilled leaders and highly trained men and women displayed great agility by rapidly adjusting training, organization, and tactics to meet the demands of the situation. They performed magnificently, showing clearly that the key concepts found in *JV 2010* are applicable at the lower end of the operational spectrum.

U.S. Marine Corps (E. J. Young)

Training for cold weather survival.

Our tremendous success in Bosnia is in large part a result of our agility, a product of quality people, superb leadership, and tough mission-oriented training. By taking further advantage of emerging technologies, especially information technologies, we will greatly enhance our agility, simultaneously improving our ability to fight as a coherent joint force and rapidly adapting our capabilities for use across the full spectrum of operations.

In large measure our success in Bosnia also can be attributed to close cooperation with our international partners. More than ever, we must continue to place a high priority on functioning as a member of a coalition force. As Bosnia proved, future crises will be best countered by responses from all nations with a stake in the outcome. The effectiveness of any future combined force will be a direct reflection of the seamless integration of its various national components.

service doctrine did not always address the full complexity of joint operations

As our understanding of full spectrum dominance has been clarified, we have also gained insight into the nature of force development in a rapidly changing world. We cannot have a force oriented on a single threat or level of operational intensity. Force structure must be capabilities-based, focused on achieving the overarching operational concepts in *JV 2010*.

Services, CINCs, and Operational Concepts

The key operational concepts are the province of every service. Our joint forces must achieve them together by empowering people and managing change wisely. *JV 2010* builds on the core competencies, institutional values, and cultures of the services, recognizing that each service has unique capabilities for which there are no substitutes. It links services as elements of a unified joint team through the shared situational awareness and common communications of information superiority as well as collective operational concepts. By achieving that, commanders will be able to employ forces as envisioned in *JV 2010*.

The evolution of joint doctrine in recent years illustrates the need to integrate service efforts to produce viable joint capabilities. In the past, joint doctrine built on service doctrine. It integrated existing doctrine to meet specific joint warfighting requirements. However, service doctrine did not always address the full complexity

of joint operations, and it left the services and unified commands to develop ad hoc solutions where gaps in doctrine occurred.

In recent years we have made superb progress in providing warfighters with improved joint doctrine. That has been accomplished only with hard work and close coordination by the services, CINCs, and Joint Staff. With *JV 2010*, we have spelled out the basic capabilities required by the Armed Forces of the future, providing the conceptual template for developing joint doctrine. At the same time, *JV 2010* will allow the services to intensify their focus on contributing to joint doctrine.

Over the coming months, the services, CINCs, defense agencies, etc., working in concert with the Joint Warfighting Center, will continue to refine the *Concept for Future Joint Operations* (*CFJO*). This important document amplifies the four operational concepts and will provide the initial basis for various assessment activities. It is the logical next step in transforming key *JV 2010* ideas into actual joint capabilities.

CFJO is the first *JV 2010* implementation concept document and the means by which the services, CINCs, and Joint Staff can debate and assess joint capabilities across the full spectrum of operations. The effective implementation of *JV 2010* depends on an understanding that its concepts apply to all services as well as how the individual services operate as a joint team.

Advanced Technology and People

JV 2010 emphasizes the critical importance of information superiority and other technological innovations which offer the potential to give us an advantage in gathering, exploiting, and protecting information. Wise adaptation of technology will enable us to derive the most combat power from available manpower, offsetting a potential enemy's advantages in mass, proximity, niche technologies, or weapons of mass destruction.

However, our commitment to advanced warfighting is not a substitute for quality people or a technical remedy for future military challenges. The scope and intensity of future operations will place tremendous demands on every servicemember, from decisionmakers at the highest levels to the young soldier, sailor, marine, or airman who is at the tip of the Nation's spear. The human element will remain the most critical ingredient of our operational success.

It is not a question of people *or* technology, but rather a question of how the strengths of both are integrated to give us the best possible military capability. As the implementation of *JV 2010* moves forward, we must remain mindful of how technology can be leveraged to improve training and education—things that make good people better. *JV 2010* aptly describes the vital role of people:

We cannot expect risk-free, push-button style operations in the future. Military operations will continue to demand extraordinary dedication and sacrifice under the most adverse conditions. Some military operations will require close combat on the ground, at sea, or in the air. The courage and heart of our soldiers, sailors, airmen, and marines will remain the foundation of all that our Armed Forces must do.

On balance, *Joint Vision 2010* is not so much a document as a living body of ideas about joint warfare. It represents a deliberate, iterative process of evolutionary change that will help the services and unified commands march into the future together.

In the world of 2010, we must achieve an effective integration of service core competencies to accomplish a wide range of missions. By bringing us together as a joint team, *JV 2010* will help do just that. Today and into the future, our Armed Forces must remain "persuasive in peace, decisive in war, and preeminent in any form of conflict."

JOHN M. SHALIKASHVILI
Chairman
of the Joint Chiefs of Staff

Letters . . .

WARFIGHTING CINCS

To the Editor—After decades of parochialism, the Goldwater-Nichols Act attempted to right the balance between service interests and centralized authorities. As illustrated by the articles in your last issue (*JFQ*, Autumn 96), this law has moved the Armed Forces toward greater unity and efficiency. However, problems remain in areas such as military advice, joint operations, and resource allocation, suggesting to some observers that the reforms enacted in 1986 did not go far enough in strengthening centralized authority within DOD.

Goldwater-Nichols strengthened the authority of CINCs over service combatant commands to match their responsibilities for warfighting. However, recent operations reveal that CINCs have yet to fully overcome efforts by the services to encroach on the conduct of military operations and to consolidate their power over component commands. What is more, staffs of unified commands may need to be augmented.

Congress pointed to the Desert One rescue fiasco and Grenada invasion as symptomatic of the compulsion by services to carve out roles for themselves in every operation. Since passage of Goldwater-Nichols, the attempt to staunch service logrolling has met with mixed results. During Just Cause, SEALs assaulted Paitilla airport not because they were the right force for the job but to give the Navy a piece of the action and tout jointness. In addition, the Commandant of the Marine Corps lobbied the Chairman unsuccessfully for enhanced participation by his service.

The Marines had greater success in Desert Storm, convincing CINCCENT to alter his plan for the ground offensive to include the Corps. The original plan relegated the Marines to a holding action on the right flank as VII Corps swept forward from the left flank, with the aim of destroying the Iraqi Republican Guard in the rear by a giant left hook. Dissatisfied, the Marines agitated for a frontal attack on the enemy line that eventually came to pass. The Iraqi line crumpled immediately, enabling the Republican Guard to flee before VII Corps could reach them by the left hook. Thus, inclusion of the Marine Corps upset the timetable of the left hook and prevented the fulfillment of a key objective of the operation, destruction of the Republican Guard.

Service desires to grab a piece of the action also manifested themselves in airstrikes against Iraq in September 1996. Four Navy surface vessels and one submarine fired a total of 31 cruise missiles while two Air Force B–52s flew a 34-hour mission from Guam to fire another 13 missiles, even though one service could have done the entire job. The mission left the distinct impression that multiple services had been involved to divide the credit and highlight their capabilities.

Recent operations also raise doubts about whether strengthening of CINC prerogatives by Goldwater-Nichols has fulfilled congressional expectations for robust joint command authority and capability. CINC authority over service combatant commands has not been consolidated. During the Persian Gulf War, the Marines insisted on maintaining control over 50 percent of their FA–18s, thus weakening the authority of the joint force air component commander. As mentioned above, the Marines Corps balked at the original ground offensive plan. Indeed, no CINC has established a land force commander to subsume all land forces beneath one joint commander. Thus no officer is in charge of ensuring that the Army and Marine component commands cooperate, and disputes are pushed up to the highest level such as the JTF commander or, in the case of Desert Storm, the CINC, who lacks the time to effectively referee Army-Marine relations. In essence, land forces are commanded by committee.

JTF commanders have experienced the lack of mission integration and jointness even more recently. The absence of fully integrated systems was a major cause in the April 1994 shootdown of two Army Blackhawk helicopters by Air Force F–15s during Provide Comfort. Also, the Army was reported to have interfered with the Implementation Force (IFOR) chain of command between the JTF commander and its troops in the field.

Even when a CINC's authority reigns supreme, Desert Storm raised other questions over the ability of a CINC's staff. The CENTCOM staff was so beleaguered by the stress of coordinating the deployment of troops that initial planning for the air campaign devolved to Checkmate, a group of air force officers cloistered in the bowels of the Pentagon. Moreover, the ground campaign was planned by the "Jedi Knights," four Army officers who had not known each other prior to the war. General Schwarzkopf assembled them partly for secrecy but also because of the nature of his staff. Both his director of operations (J-3) and director of plans (J-5) lacked the expertise to plan a ground campaign. Bringing in officers from outside to plan a major ground offensive did not speak well for CENTCOM organizational capabilities at the time of the Gulf War.

—Gordon Lederman
Class of 1997
Harvard Law School

THE NBC SPECTER

To the Editor—The article by Robert Joseph, "The Impact of NBC Proliferation on Doctrine and Operations" (*JFQ*, Autumn 96), was right on the mark. He describes one of the most troubling unresolved problems facing the Armed Forces: training and equipping when you do not understand how potential enemies might use chemical and biological weapons. The lack of validated models and simulations to accurately assess the effects of such weapons on both our forces and equipment presents a major challenge to senior military leaders. Hopefully your readers will start asking why this serious threat has not been adequately addressed.

—CPT Albert Mauroni, USAR
Abingdon, Maryland

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AN ASSESSMENT OF JOINT DOCTRINE

U.S. Navy (Martin Maddock)

10th Mountain Division on board *USS Dwight D. Eisenhower.*

As Sir Winston Churchill noted, "Those who are possessed of a definite body of doctrine and of deeply rooted convictions . . . will be in a much better position to deal with the shifts and surprises of daily affairs than those who are merely taking short views."

Doctrine represents much more than a matching set of volumes on a bookshelf. It provides a common framework, vocabulary, and purpose that promotes unity of effort. Moreover, doctrine is closely related to an institution's beliefs. For members of the Armed Forces, joint doctrine must embody the central tenets of the warfighter.

What are those core beliefs reflected in joint doctrine? This is crucial since the Commission on Roles and Missions of the Armed Forces reported a need to improve doctrine—or put another way, to reinforce our joint beliefs. Informed by visions articulated by the senior military leadership, joint doctrine must guide us past the "shifts and surprises" of the 21st century.

In support of the "Joint Doctrine Awareness Plan" approved last year by the Chairman, the service chiefs and the unified commanders were invited to submit articles to *JFQ* on areas that they viewed as critical to the development of joint doctrine. In addition, a former commander of the Joint Warfighting Center and the current director of operational planning and interoperability (J-7), Joint Staff, have contributed their perspectives to this JFQ Forum.

Some of the ideas in the articles are provocative. They range from impassive assessments of joint doctrine development to recommendations on significantly altering that process. Developing and implementing doctrine must involve a thoughtful debate over how we fight and operate as a joint team. The contributions in this JFQ Forum and elsewhere in the issue advance that objective. JFQ

Joint Doctrine: The Way Ahead

By JOSEPH J. REDDEN

EDITOR'S *Note*

Significant progress has been made in developing joint doctrine publications. The process has been shortened from four years to 23 months. Both capstone and keystone pubs have undergone major revision. The Joint Electronic Library has been expanded and made available over the World Wide Web. However, contentious issues remain in certain areas which must be resolved at service chief or CINC level. Moreover, the best hope for continued progress in joint warfighting lies in training and *Joint Vision 2010*. Yet questions have been posed about this vision—some still outstanding—with unabashed critics alleging that *JV 2010* amounts to nothing more than a string of bumper stickers.

Passage of the Goldwater-Nichols Act was viewed by some critics as "forced jointness." But the decade since its enactment in 1986 has seen us successfully engage a major regional threat with coalition allies, conduct operations around the world previously regarded as uncharacteristic for conventional military units, start to foster jointness as second nature in the officers and NCOs of every service, and take interdependence to the point where the Navy will provide key electronic warfare support for all services. This has been enabled by developing a firm doctrinal foundation, a requirements-based training system, and the emergence of a joint vision as a bridge to the future.

The joint doctrine development process is often maligned as slow and unresponsive to user needs. Unfortunately, there is some validity to that charge. In the haste to get joint doctrine to the field, the initial publications were little more than reworked service doctrine between purple covers. They were created out of need, but many were redundant or should have been published as tactics, techniques, and procedures (TTP). As Chairman, General Powell started a concerted effort to make doctrine more joint and more accessible to users. He also sought to improve the horizontal and vertical consistency of joint publications. General Shalikashvili continued these initiatives and has mandated that the publications should be more readable and distributed more quickly.

As a result, the process of developing doctrinal pubs was reduced from 48 to 23 months, in large part due to writing groups. While the lead agent approach to joint doctrine has not changed, agents are encouraged to host writing groups comprised of representatives of the services, CINCs, and joint staff directorates to draft a document that is as *purple* as possible, reducing coordination time. The new publication format has been widely accepted, and the extensive use of photos has opened new vistas for readers. To ensure that pubs get into the hands of users quickly distribution is made to the field and fleet based on lists developed by the services and CINCs.

Lieutenant General Joseph J. Redden, USAF, is commander of Air University and previously served as commander of the Joint Warfighting Center.

Capstone pubs (1 and 0-2) and keystone pubs (2-0, 3-0, 4-0, et al.) have undergone major revision. Some 84 of the projected 104 joint pubs were slated for completion by the end of 1996. The Joint Electronic Library has been expanded and is available on the World Wide Web, allowing greater access to joint doctrine, selected service doctrine pubs, terminology, and futures databases. Another significant step in the process has been inclusion of the Coast Guard as a full participant.

Seamless Training

While progress has been made in many areas, there are some contentious issues that have lingered for years which must be resolved. Two examples are Joint Pub 3-01, *Countering Air and Missile Threats,* and Joint Pub 3-09, *Doctrine for Joint Fire Support*. Both have gone through numerous drafts and working groups without major progress. Deployed forces will always find a way to make things work, but parochial interests in the system have precluded the development of joint doctrinal guidance. Without resolving these issues at service chief and CINC level, advances in joint training and the evolution of *Joint Vision 2010* may offer the best avenues for progress.

Our disposition of forces has proven costly, not least to OPTEMPO. We must ensure the readiness of forces while supporting regional engagement strategies identified as vital by combatant commanders. Progress has been made with the development of the joint training system and the emergence of U.S. Atlantic Command as joint force integrator, but there are challenges to ensuring a seamless joint training environment.

Prior to 1989 joint exercises were event-driven. Planning conferences were often opened with questions to determine what the components wanted to do, who was available to play, and what resources could be committed to the exercise. Success was based more on the number of personnel involved than on meeting jointly-agreed training goals. The line between command post and field training exercises was blurred if not indistinguishable, and deployed forces were regularly used as training aids for staffs.

The Chairman transformed joint training policy into a requirements based program in 1989. Combatant commanders were directed to articulate joint training requirements in joint mission essential task lists (JMETLs). This effort takes time and people. Those who have made the investment are seeing the benefits; those who have not continue to question the validity of the system. Stating mission requirements in terms of the capability to accomplish specific tasks under relevant conditions to meet defined standards provides a clear training roadmap. The vehicle to execute that is the joint training system (JTS).

One result of the Chairman's joint training review in 1992 was the need for a formal joint training system which was created in 1993–95, with a transition plan calling for full implementation by 1998. JTS is comprised of four phases: establishing training requirements based on JMETL, developing joint training plans to meet requirements, executing supporting events (from academic instruction to joint exercises), and assessing the effectiveness of events to meet these requirements. JTS and JMETL are flexible enough to accommodate CINC specific requirements while supporting the commonality essential to effective joint operations.

Our recent exercise experience has emphasized the need to be proactive with our friends and allies to meet requirements of multinational operations. We must mature together rather than pursuing divergent courses that may seriously degrade future coalition operations. We have seen increased interest in joint training technologies and methods by our friends and allies. There has been a shift from traditional large scale field exercises that focused on the tactical level to exercises focused on the ability of joint or multinational staffs to coordinate, synchronize, and integrate field forces. Potential JTF commanders are being educated, trained, and exercised to develop integrated land/sea/air operations that apply "the right force, at the right place, at the right time." Quite clearly, well trained joint staffs are as critical to operations as well trained forces provided by the services. Evolving training technology will continue to support specific service requirements. The flexibility it provides will also support training for a range of potential operations that will face CINCs in the future. We have made great progress in doctrine and training systems and technology to support them. However we still must determine what joint capabilities will be needed for the 21st century.

if *JV 2010* remains just an idea, it may well die a slow death from misuse and ambiguity

A New Window

In 1984 the chiefs of staff of the Army and Air Force issued a memo entitled "U.S. Army-U.S. Air Force Joint Force Development Process." This visionary document offered a framework for moving toward true jointness—not a popular concept prior to Goldwater-Nichols. Also known as the "Wickham-Gabriel 31 Initiatives," it presented a clear vision of the future but never realized its potential because of opposition from within the services and DOD. Ten years after the passage of the Goldwater-Nichols Act, we have *JV 2010*, which provides a new window of opportunity.

JV 2010 contains concepts for conducting warfare in the future. Because of the emphasis placed on this document by our military leadership, it has attracted a wide readership and attention. Many now espouse its ideas and nearly every document published in the last few months has been linked to it. A commonly asked question about the vision is how it will help achieve full spectrum dominance within the battlespace of the future, across the entire range of operations. And how will progress be measured and how will quality control be exercised over various interpretations of the vision's concepts?

If *JV 2010* remains just an idea, it may well go the way of many other "good ideas" and die a slow death

from misuse and ambiguity. That is why when *JV 2010* appeared an implementation process was initiated by the Joint Staff. This effort has also been evolving at the Joint Warfighting Center (JWFC). It has four distinct phases:

- publishing the vision and articulating it as strategic guidance
- further refining and defining the concepts
- assessing the progress being made in achieving the vision
- integrating lessons from the assessment phase into DOD systems to institute change.

The initial phase of publishing the vision and articulating it as strategic guidance was highly effective. One indicator of that success is the frequent use of the vision in both joint and service literature issued by the defense establishment. While this phase is vital in establishing operational concepts for the 21st century and laying a basis for the assessment phase, it is also dangerous if left to stand alone. *JV 2010* unfortunately has been reduced to a bumper sticker in some quarters. It is an idea that everyone appears to support but that few really understand. It was this requirement to define the vision's concepts that led to the second phase, conceptualization.

Concept definition has been underway at JWFC for many months. It has involved a group of senior active and retired officers from all four services with a wide breadth of experience. Its goal is to develop a document which will put meat to the bones of the original vision document. The first draft of this publication, *The Concept for Future Joint Operations (CFJO)*, was completed in August 1996 with copies disseminated to the CINCs, services, and Joint Staff the next month. In addition to the JWFC personnel involved in developing the document, the draft underwent extensive revisions in late 1996 and early 1997 by working groups which involved all services, representatives of the CINCs, and the Joint Staff. The preliminary coordinating draft *CFJO* was published in March 1997. This document must never be viewed as the "gospel" for future operations. It was designed as a living, breathing concept. Obviously a small group such as the one at JWFC cannot predict future warfare with total accuracy. Moreover, the concepts of *CFJO* were evaluated during a series of senior level seminars at JWFC in autumn 1996. Continued refinement will occur throughout the life cycle of the vision as new ideas and insights emerge.

Adjusting Course

The most frequent question about the vision is how one will know if we have achieved the capabilities to implement it in the battlespace of the 21st century. Phases three and four respond to this question. Phase three, assessment, is a process that will both measure movement towards the vision and enable us to adjust our course. This assessment will involve the services, CINCs, Joint Staff, and all members of the Armed Forces. A small staff at JWFC has primary coordination responsibility for the assessment effort. They will provide a common joint assessment methodology, strategy, and measures of merit for use by the joint community in the evaluation of concepts, technology, operational art, procedures, and future capabilities required to achieve *JV 2010*. Determining what to assess and developing and conducting the exercises, seminars, and events to serve as the test bed for assessments will involve the entire joint community. JWFC will facilitate the process; the services, CINCs, Joint Staff, and others will be the executors of the assessments.

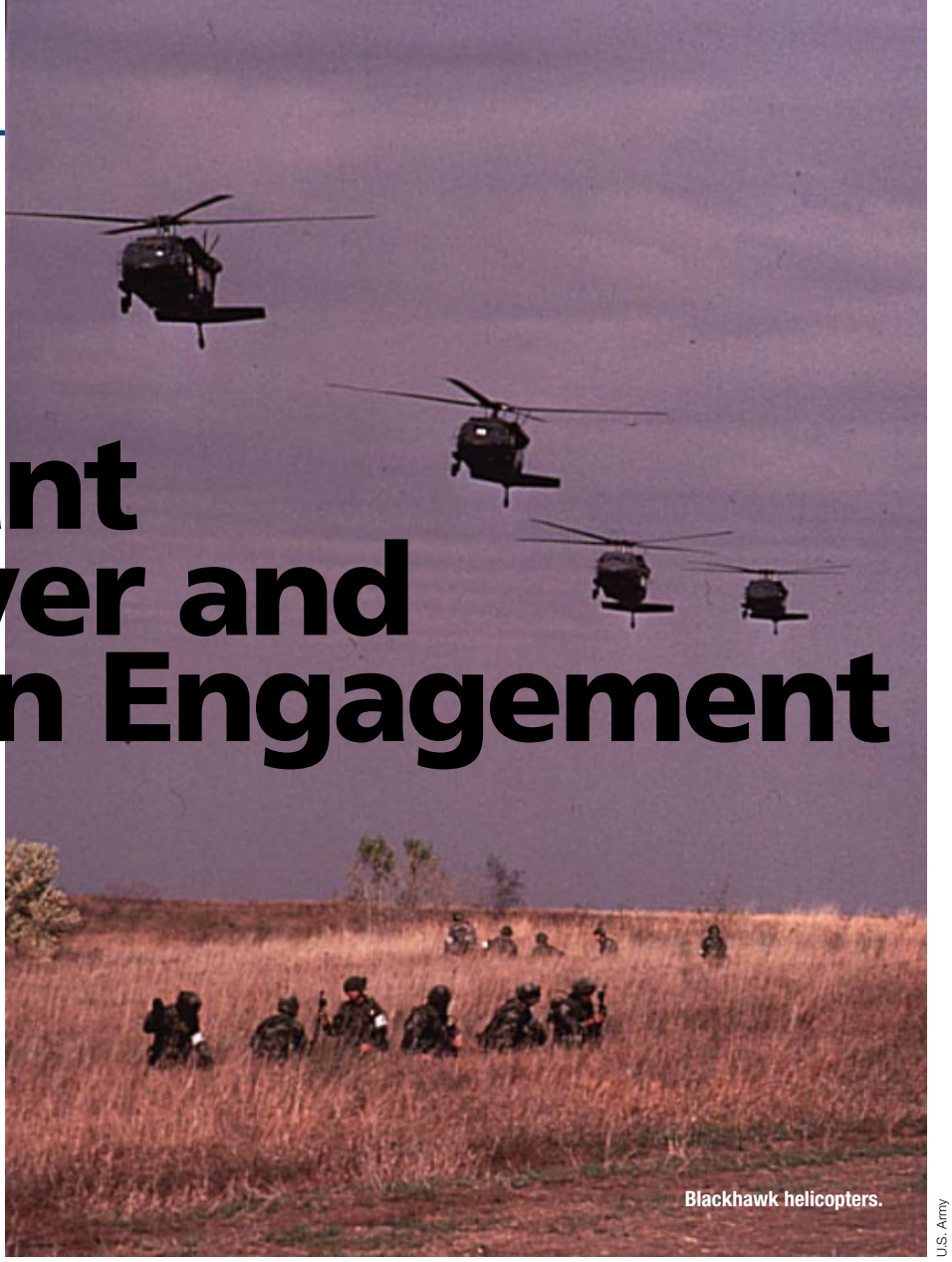
_JV 2010_ has great promise for instituting changes needed for warfighting in the 21st century

One example of this process is the effort by the Command, Control, Communications, and Computer Directorate (J-6), Joint Staff, to develop a series of exercises to determine the what and how of information superiority. Working with that directorate and affected joint activities, JWFC will collect lessons from these exercises for senior level review. The lessons will then be presented to a general/flag officer working group at the Pentagon which will determine the utility of their ideas, make recommendations to the service operations deputies, and forward approved ideas to the appropriate agencies or systems for action. Responses could include action by the Joint Staff on issues such as joint doctrine or by the deputy operations deputies/operations deputies/Joint Requirements Oversight Council on ideas which will involve changes in equipment or organizations. This entire process will be under the oversight of the Joint Chiefs. Once an idea is determined to have utility by the appropriate oversight group, the integration process will begin. Integration will utilize the existing acquisition, budgeting, doctrine, and planning systems. The desired output of the implementation process is the ability to achieve full spectrum dominance on the future battlefield (the accompanying figures depict this process).

Because *JV 2010* is more than a concept, it has great promise for developing unity of effort and instituting changes needed for warfighting in the 21st century. This process involves all DOD components, does not promote parochial interests, maintains the vitality of each service, strives for joint and unified action, and allows for course corrections under the program described above.

JV 2010 is more than rhetoric. It is the tool that will help us achieve what was envisioned by the Goldwater-Nichols Act. It will allow DOD to develop the right force for the next century while involving the entire defense establishment in the process. Coupled with progress in joint doctrine and training, it will enable us to meet the challenges of an uncertain world. **JFQ**

Dominant Maneuver and Precision Engagement



Blackhawk helicopters.

U.S. Army

By DENNIS J. REIMER

A trend is reemerging that, if continued, could be a catastrophe for the profession of arms. It is nothing new. In fact, it has numerous historical antecedents which raise red flags of caution. At present it takes the form of a search for technological "silver bullets" that will make wars in the future swift, precise, low cost, and bloodless—at least in terms of American lives. Unfortunately, it is being pursued at the expense of proven, balanced battlefield capabilities. This has implications on the tactical and operational levels and also limits the options available to the National Command Authorities (NCA). Faith in the unproven potential of technology is not a solid basis for strategy.

Many believe that precision strike weapons can win all future wars. Yet history has shown that the human dimension of warfare cannot be countered by technology alone. War is essentially an expression of hostile attitudes.[1] Technology cannot overcome the greed, fear, hate, revenge, or other emotions that cause wars. The United States has relied on technological silver bullets in the past, sometimes with disastrous effects. In the 1930s strategic bombing promised to end war from a distance, pounding an enemy into submission before one soldier had to advance. World War II proved this wrong. By 1950 the atomic bomb was thought to make any invasion by large, massed land forces impossible. Korea proved this wrong. In the 1960s a high tech electronic barrier was intended to stop infiltration into South Vietnam as bombing critical targets in

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EDITOR'S *Note*

Precision engagement and dominant maneuver are two of four operational concepts addressed in *Joint Vision 2010*. However, there is a certain danger in placing too much emphasis on precision engagement and unproven "silver bullets." The consequences of such reliance came home to roost in Korea and Vietnam. These concepts must be balanced to provide both CINCs and the National Command Authorities with the best options. Moreover, dominant maneuver accomplishes tasks that precision engagement cannot, as proven in Kuwait, the Sinai, Macedonia, Haiti, and Bosnia. A genuine balance between precision engagement and dominant maneuver serves national security.

the north dissuaded Hanoi from pursuing the conflict. North Vietnam proved this wrong. In 1991 some believed that a month-long intensive precision bombardment of Iraqi troops would force them to withdraw from Kuwait without a land campaign. Hope proved wrong yet again.

The cost for such wishful thinking has too often been paid by ill-prepared, untrained forces fighting desperately with their valor and blood to compensate for the lack of strategic forethought. Deployment of Task Force Smith to the Republic of Korea in July 1950 provides a harsh lesson about this dangerous trend. Although the United States was the only superpower in June 1950, North Korea—at best a third-rate power—attacked and almost triumphed over South Korea before a defensive perimeter was formed around Pusan. The north was only kept from overrunning the entire peninsula by vastly outnumbered, ill-equipped, tired, and hungry soldiers and marines who were supported by superhuman efforts of sailors and airmen, striking at the enemy from the sea and sky. It took three months to restore the battlefield balance necessary for decisive effects.

historically, the advantage of fully balanced capabilities has been overwhelming

Historically, the advantage of fully balanced capabilities has been overwhelming. During Desert Storm a month of strategic and operational-level bombing, much with precision weapons, set the preconditions for the coalition ground attack that ended the war in 100 hours with minimal casualties. As T.R. Fehrenbach recognized:

You may fly over a land forever; you may bomb it, pulverize it, and wipe it clean of life—but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud.[2]

The main argument of this article is that we must strike the right balance between precision engagement and dominant maneuver. Balance on the strategic level offers vital options to NCA. On the operational level it provides CINCs with decisive capabilities.

Strategic Balance

Balanced capabilities provide a wide array of choices to decisionmakers, allowing us to use our strength against enemy weakness. In 1950 in Korea we lacked an adequate ground maneuver capability. Recognizing that and anticipating that we lacked the resolve to defend the south, North Korea attacked. President Truman faced a choice of abandoning South Korea, thereby damaging U.S. prestige, or employing unprepared and severely understrength ground forces. Our reserves of World War II equipment and veteran personnel eventually turned the tide but at a terrible price—attrition warfare fought over the harsh Korean terrain against a massive and determined enemy.

In 1990 President Bush was much more fortunate. With a military that had been skillfully prepared to deter the Soviet Union, he was able to defeat Saddam Hussein with both massive and precise fires from various platforms and an immensely capable ground assault which hit directly at Iraq's center of gravity, its army. It was the combination of precision engagement and dominant maneuver that destroyed the enemy force.

In 1994 and 1995 President Clinton faced similar situations in Haiti and Bosnia. He had many options to deal with these crises—capabilities beyond silver bullets that would not work then and will not work tomorrow. It was forces on the ground with balanced full spectrum dominance that successfully secured U.S. interests.

Technological advances bring radically increased lethality and mobility. The probability of operations at the mid to lower end of the operational spectrum, coupled with new requirements to simultaneously maintain a dominant maneuver capability, will place added burdens on joint forces. Increased urbanization and the prospect of combat in cities are further considerations. Our goal must be to field a capabilities-based force proficient in operating in all dimensions of conflict.

Balance provides choices. When this balance has been lacking in the past, NCA has been forced into a strategic box—and the Nation has paid a high toll in treasure and blood to get out.

Operational Concepts

Balanced capability is equally important to CINCs. Maneuver and fires have always been primary elements of combat power. In dominant maneuver these qualities are inextricably linked. This allows forces to move into positional advantage to deliver direct or indirect fires to control or destroy an enemy's will to fight. Fires provide the destructive force and facilitate maneuver.

Precision engagement significantly contributes to successful operations. However, it cannot fully dominate battlespace across the conflict spectrum by itself. While precision engagement can shape the battlespace, it cannot accomplish all operational tasks. In practical terms there are never enough fires, and many of them can be countered. Following the first strikes, the track record of precision engagement in recent operations indicates that no matter how effective a weapon system may be at first, the surviving enemy soon adapts psychologically and technologically.

CINCs need the synergism of simultaneous dominant maneuver and precision engagement. This holistic approach to maneuver and fire creates the conditions for decisive outcome. Dominant maneuver and precision engagement bring complementary, unique capabilities to national security requirements. Joint doctrine describes this process. Joint Pub 3-0, *Doctrine for Joint Operations*, recognizes maneuver as:

[the means] *to gain positional advantage relative to enemy centers of gravity in order to control or destroy those centers of gravity. The focus of . . . maneuver is to render opponents incapable of resisting by shattering their morale and physical cohesion . . . rather than to destroy them physically through attrition.*

M–1 tanks on patrol in Saudi desert.

U.S. Army

Searching for weapons, Haiti.

Combat Camera Imagery (Val Gempis)

Full spectrum dominance depends upon a balance of dominant maneuver and precision engagement supported by focused logistics and full-dimensional protection. Dominant maneuver and precision engagement allow shaping the battlespace and conducting decisive operations. Focused logistics ensures that our forces have the right stuff at the right time, and full-dimensional protection provides them freedom of action through multi-layered defenses.

dominant maneuver has been a central operational concept since before the Cold War ended

Dominant maneuver has been a central operational concept across the full range of military operations since before the Cold War ended. It is employed by all components of the joint force. Demonstrated relevance and practical utility guarantee it a decisive role well into the 21st century.

At the high end of the operations spectrum, precision engagement provided protection and shaped the battlespace in Kuwait, but it took joint forces in the dominant maneuver role to drive out the Iraqis and guard against their return. The same can be said for other recent military operations. Where the threat or application of precision engagement did not have the desired effect, it took fires and the psychological and positional advantage of dominant maneuver to establish and maintain the peace. Operations in the Sinai, Macedonia, Haiti, and recently Bosnia-Herzegovina further testify to the role of dominant maneuver in operational tasks. Developing the blend of people and matériel that performed so magnificently in these and other operations took years.

The Challenge

We are building tomorrow's military capabilities today. We don't want to eliminate options for the future NCA. Nor do we want to deny full spectrum dominance to a future CINC.

Joint Vision 2010 understands this challenge and provides a coherent picture of the future, a template for services to develop their unique capabilities. It also reveals the implications for

joint operations with regard to four emerging operational concepts: full dimensional protection, focused logistics, dominant maneuver, and precision engagement. Properly developed and applied, these concepts will enable us to dominate a range of military operations and achieve our full potential.

JV 2010 presents the identity and purpose of our forces. It gives credit to the high quality of the military and encourages initiative. It positively displays American military preparedness for tomorrow. The vision is relevant and realistic in terms of challenges to our interests and those of both allies and friends. More importantly, it is shared and accepted within the joint community, thus setting the stage for the refinement and further development of joint doctrine.

Joint doctrine provides the holistic basis for the services. It allows them to incorporate new ideas, technologies, and organizational design and to develop the flexible, innovative, imaginative, and problem-solving leaders required to conduct modern military operations. Although technology is advancing at an increasing pace, we must not make the mistake of relying on that alone. As the 17th century Japanese warrior Miyamoto Musashi said, "You should not have a favorite weapon."[3] While technological silver bullets have sometimes greatly influenced tactics and specific operations, their impact on warfare is perishable. As noted, it is the adoption and application of appropriate strategy, doctrine, and balance of operational concepts that ensure the outcome of conflict.

dominant maneuver in a show of force may resolve many issues without using lethal means

Looking to the future, we must maintain the equilibrium between dominant maneuver and precision engagement. Overreliance on one at the expense of the other can have severe results. Any adversary with money and access to world markets can get all the high tech systems he wants. Moreover, using precision engagement systems crosses a threshold of violence, reducing options available to military and political leaders.

Like our predecessors, we must harmonize dominant maneuver and precision engagement to meet our national security needs and prevent a shortsighted solution to operational requirements. Our challenge is to avoid dependence on rigid, fleeting, one-dimensional strategies that are overly reliant on precision engagement or dominant maneuver. Such strategies create imbalances among the operational concepts, reduce strategic choices, and threaten a return to attrition warfare with its high price in human suffering.

We must harmonize our investment in, and application of, these two operational concepts. As potential adversaries study the American way of warfare to identify our weaknesses, shifting to unbalanced strategies may have serious consequences. The world recognizes our infatuation with precision strike, reluctance to commit forces for long periods, aversion to taking casualties, fear of collateral damage, and sensitivity to domestic and world opinion. Those who do not wish us well understand where our strengths and weaknesses lie and may act accordingly.

Thus it is even more important to balance dominant maneuver, particularly on the ground, with precision engagement. Ground forces employing dominant maneuver in a show of force may resolve many issues without using lethal means. More important, applying maneuver forces sends an unequivocal message of U.S. resolve. If the friction between dominant maneuver and precision strike continues unabated, the ability to conduct such operations may be compromised.

Our record of anticipating change is mixed. History teaches that those who failed to see the future had a narrow focus, became complacent, or were captivated by passing fads and short-lived technological advances. Today's military leaders must balance dominant maneuver with precision engagement, thereby leveraging the decisive effects of positional advantage and psychological impact to achieve strategic objectives quickly and at minimum cost.

War is a political act. It is also essentially linked to human nature, which doesn't change as fast or often as technology. We cannot eliminate the irrational aspects of war through a purely technical solution. The objective of war is to achieve the strategic aims set by our political leaders. Precision engagement allows us to destroy things and shape the battlespace. Dominant maneuver allows us to obtain decisive victory through a combination of fires and maneuver. Only through decisive victory or the undisputed ability to achieve it can U.S. national interests be assured.

Our military is the world's finest because years ago farsighted leaders developed, modified, and embodied strategic and operational concepts that produced the outstanding equipment, training programs, doctrine, and servicemembers who comprise the joint team. Our challenge is to prevent past mistakes. This will require leaders farsighted enough to establish the equilibrium between dominant maneuver and precision engagement needed to maintain our preeminent status.

A major role of our defense and foreign policy in the coming decades will be to deter and defeat aggression against the United States or our allies. Demonstrated war-winning competence, based on strategic and operational concepts of dominant maneuver and precision engagement, and coupled with a devastating retaliatory capability, will help guarantee our national security. **JFQ**

NOTES

[1] Carl von Clausewitz, *On War* (Princeton, N.J.: Princeton University Press, 1976), p. 137.

[2] T. R. Fehrenbach, *This Kind of War* (New York: Macmillan, 1963), p. 427.

[3] Miyamoto Musashi, *A Book of Five Rings,* translated by Victor Harris (Woodstock, N.Y.: Overlook Press, 1982), p. 48.

Combat information center aboard *USS Kitty Hawk.*

U.S. Navy (Gallagher)

The Navy in 2010: A Joint Vision

By JAY L. JOHNSON

EDITOR'S *Note*

The Navy's ability to project power from the sea will provide the initiative in dominant maneuver. It is also intended to preclude any possible resistance against our forces. Forward deployed naval forces offer an advantage in precision engagement. They can strike beyond an enemy's reach and mass fires without massing forces. Naval forces will supply the shield which protects joint forces and our allies from ballistic missile threats. By 2010, sea control will take on a renewed meaning: it will require naval forces to roll back enemy strike and surveillance capabilities. *JV 2010* means changing the way we think—a challenge which the Navy is committed to accept.

Admiral Jay L. Johnson, USN, is Chief of Naval Operations.

America is at relative peace and will enter the 21st century as the premier military power in the world. But that world is an unstable and often chaotic place. Despite our best hopes, the next century may be no more peaceful than the last. Rapid social, economic, and technological changes are transforming the global environment before our eyes. Crises, conflicts, and direct threats to U.S. lives and interests will continue to be a fact of international life.

Threats from transnational terrorism and the proliferation of weapons

of mass destruction seem certain to expand and to join other challenges as yet unforeseen. The future presents a major puzzle to the Armed Forces: how do we ensure the Nation's continued operational primacy? How do we ensure that the United States has the best military in the world tomorrow as well as today? *Joint Vision 2010* represents the first step in resolving these issues and planning for that continued preeminence. It is the conceptual template for the Armed Forces of the 21st century.

JV 2010 is particularly significant for the Navy because it reinforces a revolution in naval thinking set in motion with the post-cold war white paper *Forward . . . From the Sea*. *JV 2010* combines technology with innovative operational concepts to multiply the impact of all our forces. In essence, it depicts how the Navy will implement *Forward . . . From the Sea* in the next century—how we can give our naval forces a decisive, direct impact ashore in peacetime, crisis, and war. Our joint vision is about more than harnessing emerging technologies. It is about a new joint kind of warfare which will enable us to optimize the capabilities of every ship, submarine, and aircraft by putting them in a joint context where they support and are supported by the Army, Air Force, and Marine Corps to maximize the full range of military power.

naval forces bring a unique dimension to the technologies and concepts of *JV 2010*

The impact of this joint vision will be especially telling in the case of our forward deployed sailors and marines. It will put the resources of the United States, including national surveillance assets, at their disposal and allow our on-scene naval forces to act quickly, flexibly, and decisively to prevent, contain, and control crises and conflicts.

Opportunities for Naval Forces

The core of *JV 2010* is a series of exciting concepts for leveraging our national strengths, exploiting an enemy's weaknesses, and attacking hostile centers of gravity. Taken together, they define a new kind of warfare based on maneuver and precision and enhanced by technology and information superiority. Joint precision does not replace older forms of combat; rather, *JV 2010* poses new opportunities for our forces and an alternative to attrition style warfare.

Information Superiority. Emerging technologies, particularly in information, will be force multipliers in 21st century warfare. Technological innovations foreseen by *JV 2010* will greatly increase the lethality, speed, and reach of naval forces. They will introduce a new dimension to naval combat by letting us mass the effects of our actions rather than the forces themselves.

Naval forces in turn bring a unique dimension to the technologies and concepts of *JV 2010*. For example, autonomous forward naval forces offer new flexibility to the concept of information superiority. They can furnish agile, distributed, and integrated command, control, and information systems that joint forces need to maneuver or mass combat power—without local shore facilities. Indeed, the ability of forward naval forces to arrive early and stay on-scene offers a multi-faceted, high-technology nucleus about which the powerful joint and coalition forces of 2010 will coalesce. But they also give information superiority a peacetime dimension, a visible forward reminder of what America can do to foreclose enemy options and help shape the local security environment.

Dominant Maneuver. Maneuver—with speed and surprise to exploit enemy vulnerabilities, disrupt decisionmaking, paralyze response, and break enemy will—has always been an attribute of naval warfare. The unique contribution of naval forces to joint maneuver warfare is the utilization of the sea to gain strategic and operational advantage over enemies.

Projecting power from the sea provides initiative. It prevents an enemy from anticipating when, where, or how we will attack, or the direction or strength of an attack. However, maneuver dominance means taking an additional step. We will use our agility and information superiority to anticipate an enemy's movements and prevent the execution of its plans. In effect, our objective is to make maneuver at sea and from the sea so convincing and decisive that it effectively forecloses any possibility of successful action against U.S. forces, thereby deterring aggression.

Precision Engagement. Naval forces are particularly suited to precision engagement at any level from contingency operations to major land campaigns. In the context of *JV 2010*, precision operations from the sea will employ high-technology sensors, information systems, and weapons to attack specific targets which are critical to an enemy's ability or willingness to fight. Forward deployed naval forces (ships, submarines, aircraft, marines, missiles, and guns) afford joint forces unique advantages in executing precision engagement. Operations can be launched from the sea, beyond enemy reach, then rapidly directed or redirected to create and sustain a lethal concentration of fires rather than a vulnerable concentration of forces. Moreover, seabasing allows us to sustain a significant mass of precision capabilities in forward positions. Such immediate availability on-scene underlines the U.S. capacity to respond quickly and decisively to aggression and adds a new dimension to deterrence.

Full Dimensional Force Protection. The technologies and concepts foreseen in *JV 2010* are a two-edged sword. They will proliferate and be used against us and our allies—at sea, in the air, and perhaps most significantly ashore. Creation of a mobile shield, including ballistic and cruise missile defenses, will be a prerequisite not only for effective employment of joint forces in wartime but in the sensitive pre-conflict period when a coalition is being formed and a conflict may still be deterred. Forward naval forces will be pivotal. In crises naval forces will offer prospective allies non-intrusive but effective protection from international waters, and during conflict they will furnish comprehensive full-dimensional protection for land-based forces,

USS Gates replenishing *USS George Washington*.

U.S. Navy

especially during the critical early stages of deployment.

Focused Logistics. The ability of the Navy to sustain itself and joint forces at sea or ashore remains one of the Nation's greatest strengths. Information technologies offer ways to streamline the logistics requirements of both Navy and joint forces, moving beyond the cumbersome logistics tail needed to supply immediate support to forces ashore today. In a warfare environment in which enemies can target any shore-based fixed sites or concentrations of munitions and supplies, such a responsive sea-based logistics infrastructure will be necessary for ground operations.

we will need to transform control of the maritime battlespace into full protection for forces ashore

Implications for the Navy

The fundamental Navy roles described in *Forward . . . From the Sea* are fully applicable to *JV 2010*. Without question, warfighting will remain our primary mission. A navy that cannot win a war cannot deter one. *Forward . . . From the Sea* made clear that our Navy will be prepared to close with an enemy at any and all levels of conflict and use forward presence to project American influence ashore to deter crisis and conflict. That will not change, but the environment described in *JV 2010* will significantly alter how we fight and how we deter—especially by increasing the role and capabilities of forward naval presence. New technologies and concepts will greatly enhance the Navy's ability to perform its basic roles: sea control, strategic and conventional deterrence, and projecting decisive power ashore, but they will also bring new challenges.

Sea control and maritime dominance will take on an entirely new dimension. We will still need to defeat enemy naval forces and secure air and sea lanes. However, in 2010 we will also have to roll back and destroy enemy surveillance and strike capabilities, whether they are at sea, in the air, ashore, or in space. Then we will need to transform control of the maritime battlespace into full dimensional protection for forces ashore.

Similarly, proliferation of chemical and biological as well as nuclear weapons and the threat of transnational terrorism will magnify the requirements of strategic deterrence. Ballistic missile submarines and undersea superiority will remain the mainstay of our nuclear deterrent. However, the precision engagement capabilities of forward naval forces of the future may provide a flexible conventional supplement to it as well as an enhanced means of preventing crises and protecting U.S. interests at home and overseas.

Finally, all elements of *JV 2010* will come to bear on the Navy's ability to project decisive combat power ashore. Dominant maneuver and precision engagement will multiply the impact of naval strike operations, manned or unmanned, while providing full dimensional protection, precise fires, and focused logistics from offshore will enable joint forces to maneuver from the sea.

The concepts outlined in *JV 2010* can multiply our combat power. They permit the Navy to combine traditional strengths—balanced forward combat capability and the freedom of operating from the international high seas—with the use of new weapons and capabilities to exploit enemy vulnerabilities. But the real challenge is in changing our way of thinking. The Navy has accepted that challenge and will aggressively exploit emerging technologies and encourage innovative operational thinking. We will combine the ideas of *JV 2010* with the revolutionary naval thinking contained in *Forward . . . From the Sea* to optimize the unique impact of sea-based forces. But we also recognize that the real key to implementing *JV 2010* or carrying the concepts of *Forward . . . From the Sea* into the next century will not be technology or concepts but people—our sailors and marines. Visions of operational primacy will not be attainable without leadership, teamwork, and pride in a rich heritage that makes the Navy great today. The courage and skill of our people will remain the true wellspring of victory. Their imagination, initiative, and determination will drive the necessary innovations in warfare. They will create the opportunities for revolutionary advances in combat power and ensure that the Nation has the best navy in the world today, in 2010, and in all the years between. **JFQ**

Though neither policy nor strategy, joint doctrine deals with the fundamental issue of how best to employ the national military power to achieve strategic ends.

—Joint Pub 1

Directing amphibious vehicle onto beach at Mogadishu.

U.S. Navy

DOCTRINE FOR Joint Force Integration

By CHARLES C. KRULAK

EDITOR'S *Note*

In an increasingly complex world, we must avoid a "cookie cutter" approach to joint warfighting. It is misguided to impulsively organize joint forces along purely functional lines, or according to the medium in which they operate—land, sea, or air. Under this logic, functional organizations are assumed to negate service parochialism and achieve the desired levels of jointness. However, they do not necessarily provide the most effective force for all operations. It may be necessary to organize along service lines, even employing a combination of service and functional components. Each joint force must be organized for the mission at hand and seek the greatest flexibility possible.

General Charles C. Krulak, USMC, is Commandant of the Marine Corps.

As we approach the 21st century, there will be no shortage of challenges for the Armed Forces of our Nation. These challenges will be the result of a world that is currently undergoing a metamorphosis. Today we see numerous emerging countries experiencing enormous economic growth. With this new economic growth comes a commensurate ability to procure military power. The diffusion of technology and a burgeoning world arms market make available for procurement some of the latest high tech weaponry and, for those who desire them, possibly even weapons of mass destruction.

At the same time we see this shifting balance in economic and military power, we continue to see the world's resources becoming more scarce. The competition for them always has been and always will be a dominating theme in international relations. This mix of emerging economies, competition for resources, and new military might is a proven recipe for instability.

At the same time we see the potential for instability caused by growth and competition, we see established nation-states all across the globe splintering along ethnic, religious, or tribal lines. These trends not only produce crises between and within nations but create a much greater degree of instability—instability that can eventually degenerate into chaos. In this chaotic world we may find ourselves not only challenged to operate along the whole spectrum of conflict but, at times, on many different levels simultaneously in the same area of operations (AO). This multispectral aspect of conflict adds a new challenge to our forces—operating in an environment of "mission depth." We have experienced this mission depth on a small scale in Mogadishu, with Marines on one block providing humanitarian assistance, while on the next dealing with civil disturbance, and on yet another fully engaged in armed combat.

As we prepare to protect the Nation's interests in the future, well thought out, flexible joint doctrine will be at the forefront of our ability to deal with the challenges of this evolving world of shifting balances of power, chaos, and mission depth. We must be ready to commit force in innovative ways. We must look for new solutions to new problems and be able to take advantage of new capabilities. We must resist the temptation to gravitate toward standardized, "cookie cutter" solutions because we have a level of comfort and familiarity with those solutions.

Command Relationships

Nowhere is the need for flexibility more critical than in our approach to arranging command relationships within a joint force. The proper organization of a force for mission accomplishment is one of the most important functions of command. This has been true since Rome organized its legions in multiples of ten, and it is true today as a CINC decides to fight his force using functional componency, service componency, or a combination thereof. The imperative remains unchanged. A commander must be able to wield influence throughout both the spatial and temporal depth of the battlespace in a synergized effort aimed at achieving his purpose. With exponentially exploding technology in weapons and our ability to process information, the ability to optimize the command and control structure will take on even greater importance. Herein lies one of the great challenges we face in the continuing development of joint doctrine. We must optimize a commander's ability to focus a growing resource base while enhancing his ability to deal with an increasingly complex set of tasks and conditions. The Goldwater-Nichols Act of 1986 provides a framework to do just that. It mandates that we provide a joint force commander (JFC) with the best force-resource base available, without regard to the military department or departments from which we must draw the assets. It is the springboard from which we overcome service parochialism and fight a joint fight. Joint doctrine is our key to organizing for that joint fight.

molecular management of our forces is not the school solution

There is, however, a growing misconception of what "fighting joint" means with respect to organizing for combat. There are many who believe that organizing a joint force means the simple division of forces and capabilities along functional lines based on the medium in which they operate. Forces that operate on or in water—and in some cases from water—are controlled by a joint force maritime component commander (JFMCC); those that operate on land are controlled by a joint force land component commander (JFLCC); those that operate in the air are controlled by a joint force air component commander (JFACC); and those that operate in the realm of special operations are controlled by a joint force special operations component commander (JFSOCC). The logic is that we negate service identities by functionally aligning a force and thus assume that such a force has achieved the desired level of jointness and can better accomplish its mission.

By defaulting to functional componency we leave consideration of the mission completely out of the process. In fact, by taking this simplistic functional approach to organizing a joint force, all we really accomplished is a reorganization by matching a force to the molecules—water, earth, or air—through which it operates. The mission is not addressed. Instead of simply administering a force by molecular management we should be properly exercising the process outlined in either JOPES deliberate or phase III crisis action planning in order to find the optimal command and force structure to accomplish a mission.

Structure and Mission

Today's joint doctrine allows us the flexibility to optimize the capabilities of our forces by utilizing the strengths of existing service component commands, organizing along functional lines, creating joint task forces (JTFs), or a combination thereof. Instead of arriving at a functionally based solution by default, we should ask what is the value added by reorganizing from the existing service component structure? If there is no value added, why reorganize it? We must remember that molecular management of our forces is not the school solution. It is an option.

To find the best structure-mission match-up, we should be rigorous in analyzing how best to tailor a force to the course of action (COA) envisioned by a JFC. If that course necessitates two or more forces from separate military departments operating within the same medium in close geographical proximity then a functional componency command structure may be the solution. To determine if this is the case, there are a number of considerations that may be addressed in our analysis

such as: C^2 capabilities of a joint force commander and his staff and their envisioned role in the operation; who has the leading capability to plan and execute a mission and/or the preponderance of forces operating in the medium; whether a given mission is the same or dissimilar for different parts of the force; are significant forces from more than one existing service component operating in the same medium in a geographic area; what is the interoperability of C^2 and the forces involved; what span of control does the C^2 architecture allow; and what is the duration and scope of operations.

Each JFC must organize those forces at his disposal for mission accomplishment. Often a single JFMCC, JFLCC, JFACC, and JFSOCC is the right command and control solution. In other cases, it simply may not be. Take for example a theater in which a JFC finds himself faced with an MRC scenario for which he organizes a force along functional lines and deploys it to the theater of operations. Simultaneously he finds there is another demand for action at the lower end of the spectrum, perhaps even an MOOTW. This could be at a separate locale, or as chaos in the theater gains momentum it could be in the same AO as the MRC. One solution to his dilemma is to relieve the various subordinate commanders of dealing with operations at different ends of the spectrum and create a JTF solely for the purpose of dealing with the new demand. He now has one more subordinate to communicate with but has simplified his lines of command while not overtaxing his subordinates. He has created a command structure well suited to deal with the mission depth in his AO. This was a fairly easy solution and is adequately addressed in Joint Pub 3-0 at present.

But let's examine a more complex case in which a JFC is fighting an MRC. A significant portion of our military capability is at his disposal. In addition, he has been designated commander of a large multinational coalition force. The AO is expansive and the JFC determines that he must take very disparate objectives in the far eastern and far western parts of his AO. Given the size of his force, expanse of the AO, and dissimilar nature of operations in east and west, he decides to designate two commanders as JFLCC: one JFLCC west and one JFLCC east. While once again he has added another commander to communicate with, command and control are enhanced. His subordinate commanders each have a force and mission they and their staffs can contend with. The JFC can now best allocate resources to each JFLCC and the JFC has a clear mental picture of the priorities of his subordinates when receiving information or giving guidance to one of them.

Using a variation on this case we can explore another and perhaps more likely command relationship option. As before, the objectives also involve operations in a similar medium but are separated geographically. One of the forces, however, is significantly larger and is the designated main effort. It is comprised of both joint and coalition forces. A smaller force is assigned the other objective and designated the supporting effort. It is also organized for ground operations but is predominantly from a single military department while the larger force draws significant forces from multiple service departments. The JFC in this case determines that the best command and control structure to successfully execute his intended COA lies in designating the larger force a functional component command and having one of his service components exercise command and control over the smaller force. He has used a functional component to coalesce and harness a large and complex force and capitalized on the existing command relationship and abilities of a service component to deal with a simpler force and mission. He was able to arrive at this optimal solution because he used an analytical approach and an open-minded evaluation of the full field of options available to him.

***USS Essex* off Somali coast.**

U.S. Navy (David P. Gallant)

Marine sniper taking aim.

Military Photography (Greg Stewart)

Although these last two solutions do not expressly run counter to present doctrine, you certainly will not find a two-JFLCC example in any current doctrinal publications and I doubt that many seminars conducted at the Armed Forces Staff College explore mixing functional and service component command structures within the same joint force. Our institutional thought processes are beginning to harden around automatic functional alignment, a method that is nothing more than "management by molecular medium." We must reverse this trend.

Unity of Command

Look closely at the language in our current doctrine: "JFCs assign missions and establish command relationships to meet the requirements of specific situations" (Joint Pub 3-0); "primary emphasis in command relations should be to keep the chain of command short and simple so that it is clear who is in charge of what" (Joint Pub 1); and establish "functional component commands when such a command structure enhances the overall capability to accomplish the mission of the establishing commander" (Joint Pub 3-0). Functional commands are not the only way to operate jointly. Our doctrine does not mandate their use, they are only options. Furthermore these options are open to further creative manipulation if commanders so desire.

functional commands are not the only way to operate jointly

By way of counter-arguments, there are many who would protest both a functional and a service component command operating within the same medium, based on a perceived loss in unity of command. We speak a great deal of the importance of unity of command throughout doctrine. It is one of the nine principles of war and its maintenance is an imperative to success. Its violation invites failure and defeat. Mention more than one subordinate commander operating in the same medium and some assume that we have violated this principle. This, however, is simply not the case. Unity of command has nothing to do with the number of commanders in a specific medium but everything to do with the relationship between a commander and his subordinates.

In Joint Pub 3-0 we read, "Unity of command means that all forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose." The commander in our above case is the JFC. He maintains unity of command so long as all forces under his authority answer to him through a clearly definable chain of command and so long as subordinates answer only to one authority on each level.

Many who would decry a loss of unity of command have served in divisions which had several brigades or regiments or in corps which had more than one division. Did the division and corps commanders in those units lose unity of command by having more than one subordinate commander doing roughly the same kind of task within the same medium? Of course not. What they realized was enhanced command and control because they had task organized their forces into manageable packages. They divided their forces into a number of subunits that their command, control, and communications infrastructure could handle. Those commanders could now wield their influence throughout divisions and corps because they had maximized their ability to control the forces. They even had the added flexibility of assigning disparate missions to various parts of their forces (assault, support, reserve, etc.) and had trusted subordinate commanders to report to them on the progress of their missions. JFCs are no different. They divide their forces into manageable packages and focus them on a mission. The number of subordinates operating in a medium is not the issue. Creating the task organization that is optimal for a JFC's intended COA is the issue.

Sometimes designating a JFMCC, a JFLCC, a JFACC, and a JFSOCC is the desired level of command packaging. Sometimes that mix, plus a JTF for a special mission or location, may be the solution. And sometimes it may be desirable to have a creative functional-componency mix.

To best organize their forces, JFCs must understand and capitalize on capabilities provided by each service. The Marine Corps provides potent Marine Forces (MARFORs) organized to fight as Marine Air Ground Task Forces (MAGTFs). The latter can be integrated into various command relationships or can conduct independent operations directly for JFCs. We are providing service component headquarters today to unified and subunified commands. We are upgrading JTF command and control capabilities within our Marine Expeditionary Units-Special Operations Capable. And, recognizing the confusion frequently found in ad hoc JTF headquarters, we have established a standing JTF headquarters on the east coast. It can respond to crises from forward presence to conflict resolution, with the ability to act as a bridge for subsequent operations. Additionally we have created the Commandant's Warfighting Lab to test new methods, technologies, and structures for the Marine Corps of the future. The resulting product of the laboratory's experiments will be Marine forces provided to JFCs that are more adept at operating in scenarios of chaos and mission depth. With innovative ideas and organizations the Marine Corps is leaning forward into the joint fight of tomorrow.

Clearly joint doctrine is also leaning forward and I applaud the efforts to keep it relevant to the challenging battlefield of tomorrow. As we continue in its development, however, we must resist the urge to gravitate to simplistic "one size fits all" answers to how we will organize to fight. We must not allow the current tendency of defaulting to purely functional componency to infect the doctrine by which we will operate in the future. Doctrine must serve us in the full spectrum of conflict and must be useful in conflicts that may be characterized by chaos and mission depth. Retaining flexibility is the key to keeping the joint doctrine of tomorrow useful and relevant. **JFQ**

B–2.

U.S. Air Force

The Air Force and *Joint Vision 2010*

By RONALD R. FOGLEMAN

EDITOR'S *Note*

Joint Vision 2010 depends upon airpower. Air and space superiority confirm dominant maneuver. Airpower also provides dominant maneuver of global proportions. Operating from centralized or dispersed locations, it can engage myriad targets throughout the world. And new air expeditionary forces which are being provided to regional CINCs further strengthen capabilities for global attack. At the heart of the concept of precision engagement in *JV 2010* is the precise and accurate delivery of munitions by the Air Force. Of all the aerospace assets, though, people are the most important. Only they can provide the innovations necessary to make a joint vision of the 21st century a reality.

General Ronald R. Fogleman, USAF, is Chief of Staff of the Air Force.

For almost fifty years the United States planned for the relatively straightforward task of containing and deterring the Soviet Union. Although the Cold War has ended it is clear that the world has not seen an end to conflict. Nation-states and non-state actors continue to use force to achieve political goals. Today the Armed Forces, operating with tremendous dedication and skill, are engaged in meeting national priorities around the world. At the same time, we must develop the conceptual framework and weapons to meet future security challenges.

Joint Vision 2010, crafted by the Joint Chiefs, provides a compelling operational blueprint for employing the military in tomorrow's conflicts. The Air Force fully embraces this template for winning wars and is committed to integrating the unique capabilities and attributes of airpower into the operational tenets of dominant maneuver, precision engagement, full dimensional protection, and focused logistics. These four concepts, coupled with information superiority, will guide development and employment of joint forces to gain and maintain full spectrum dominance throughout the battlespace, against any force, at any level of conflict.

JV 2010 depends upon and highlights the contribution of airpower and forms the core of our strategic plan for the future—*Global Engagement: A Vision for the 21st Century Air Force*. This vision captures the global and strategic nature of Air Force capabilities and reflects our belief that in the first quarter of the 21st century we will be able to find, fix or track, and target, in near real time, anything of significance which is stationary or moving on the earth's surface. This will allow air and space power to dominate the battlespace, prevent an enemy from finding sanctuary, and permit freedom of action for joint and combined forces.

Air Force contributions to *JV 2010* are found in the core competencies of air and space superiority, global attack, rapid global mobility, precision engagement, information superiority, and agile combat support. While core competencies are not exclusive to any one service, those of the Air Force are characterized by the speed, flexibility, and global range of our forces and enhanced by the broad perspective of airmen to provide a globally responsive force. They also provide a way to link doctrine with modernization priorities.

Air and Space Superiority

Control of air and space is fundamental to dominant maneuver. Air and space superiority are key to preventing enemies from interfering with our operations and giving our forces complete freedom of action throughout the battlespace—the essence of dominant maneuver.

Controlling air and space over friendly and enemy territory has been a constant in warfare since the advent of airpower and will be increasingly important in the future. Attaining complete air and space superiority quickly and efficiently provides air dominance—the ability to dominate enemy airspace. Air dominance allows friendly forces to take away enemy sanctuaries and strike anywhere—the ultimate in superiority. This level of control greatly diminishes risks to our forces and creates opportunities to shape battles and achieve war-winning advantages. This level of air and space superiority is essential to the operational concepts described in *JV 2010*.

controlling air and space has been a constant in warfare since the advent of airpower

The Air Force currently gives joint force commanders (JFCs) the full capability to achieve air and space superiority. We gain it through a "system of systems" which provides the ability to detect, track, identify, and target enemy air threats. Conceptually, the Air Force considers the entire battlespace in gaining air and space superiority and, as we move into the 21st century, the line between air and space will become even less distinct. Fundamentally, the approach to gaining air or space superiority can be broken down into the same areas, including attack operations to find, fix, and destroy enemy vehicles, support equipment, or launch facilities on the ground; interception of vehicles in-flight; terminal defenses; and force protection measures such as hardened facilities and personal protection equipment. All this is linked by a command and control system that provides timely and accurate information throughout the theater.

Destroying an airborne threat relies on sensors that can detect, identify, and track vehicles, integrate that information, and then destroy those vehicles with the appropriate weapon. In short, it relies on command and control. The airborne component of this system is our fleet of airborne warning and control system (AWACS) aircraft. We are modernizing and replacing the console and computer systems on these aircraft and upgrading the radar system to improve detection capability for a variety of targets.

Our forces still face risks from enemy aircraft and cruise missiles, but the proliferation of theater ballistic missiles (TBMs) poses a truly profound danger. As with any air or space vehicle, destroying missiles on the ground is the best defense. Although this capability is being developed, we are also exploring ways to stop missiles once launched. The airborne laser (ABL) will attack TBMs during the boost phase, the most vulnerable part of their trajectory, before any submunitions or decoys can be deployed. This will ease the burden on terminal defenses. Boost phase intercept also presents an enemy with the prospect of missile warheads falling back on its territory—a strong disincentive to employing missiles, especially when mated to weapons of mass destruction. ABL represents a dramatic leap forward in warfare.

A key element in the "system of systems" for retaining air superiority is the F–22. It merges stealth, supercruise, and integrated avionics in one maneuverable platform—a formidable combination that will enable it to dominate opposing forces into the next century. The first flight of the F–22 is scheduled for this spring and it will go into service in 2004, replacing the 1970s-era F–15 with an aircraft that is not only more capable but cheaper to operate and requires fewer parts and people to maintain.

The Air Force, through its Space Command, will continue to advance capabilities needed to maintain space superiority for all services. The space-based infrared system (SBIRS) will replace the early warning system for the defense satellite program. SBIRS will be operational early in the next century and provide faster and more accurate information on detection and warning of missile launches which can then be relayed to systems such as ABL.

The future architecture for transferring such information is contained in the global broadcast system (GBS). This system builds on commercial innovations to meet military requirements. GBS satellites transfer imagery and large amounts of data to numerous units much like direct-broadcast television. Users will be able to obtain specific information and continuous or regularly scheduled updates. As DOD executive agent for space systems used by all services, the Air Force will lead the fast-track program for acquiring and fielding GBS.

Also vital is assuring access to space through a cost-effective launch capability. The most important program in this area is the evolved expendable launch vehicle. It will take us beyond the current ICBM-based launch vehicles and is designed to move a broad range of spacecraft, reducing launch costs by 25 to 50 percent. The program is on track with the first test launch scheduled for 2001.

Space superiority also demands a constant commitment to innovation. In order to provide institutional focus the Air Force is creating a space battle lab using inputs from Phillips Laboratory at Kirtland Air Force Base and the Space Warfare Center at Falcon Air Force Base.

Global Attack

The Air Force has the unique ability to find and attack targets anywhere in the world using the synergy generated by air and space assets. In essence, the capability to engage at various places in minimum time from centralized or widely dispersed sites describes a flexible, dominant maneuver force of global proportions. World-spanning mobility forces and CONUS-based bomber or missile operations provide a responsive, worldwide capability to meet national interests.

C–130s at Cap Haitian.

U.S. Air Force (Frank Oplanic)

rapid global mobility is key to a quick and decisive response to unexpected challenges

Throughout the Cold War most Air Force global attack assets were dedicated to a nuclear retaliatory mission. Today many are being shifted to a conventional mission. Long range bombers are being upgraded to improve our unique ability to project power. The B–1 force is undergoing modifications to both offensive and defensive systems and has demonstrated the capability to drop cluster bomb units. The B–2 has seen steady progress in the conventional role, highlighted by the dropping of global positioning system (GPS)-aided munitions in October 1996. The B–52 remains a viable and important component of our global attack capability, demonstrated during conventional air launched cruise missile strikes against Iraq.

Global attack also reflects our expeditionary nature. As the United States reduces forward-based forces, the Air Force will use expeditionary capabilities. These forces will contribute rapidly tailored air and space assets to regional CINCs when and where needed. We have demonstrated this capability through a CONUS-based air expeditionary force (AEF) three times over the last year and will refine our future ability to rapidly deploy tailored forces—lethal and non-lethal—through a battle lab focused on the AEF located at Mountain Home Air Force Base.

Rapid Global Mobility

As we have seen since the end of the Cold War, mobility forces are on call and in use every day, a trend that will continue. This core Air Force competency provides the means for bringing forces forward for combat, peace operations, or humanitarian efforts.

Rapid global mobility is the key to a quick and decisive response to unexpected challenges anywhere. Airlift and aerial refueling aircraft provide the air bridge by which the United States can support and move joint, coalition, or multinational forces for combat or peace operations. In short, this capability also provides dominant maneuver of a global nature, assuring the early arrival of forces or logistics to deter conflict or fight.

While C–141s and C–5s provide the majority of airlift today, C–17s will be the backbone of our future heavy airlift force. While the very existence of the C–17 was in doubt several years ago, today it is an acquisition success story. In its first year of operation it has demonstrated its capabilities to warfighters around the world. In addition, we are modifying the KC–135 air

refueling fleet and the C–5 force, improving their performance while reducing both maintenance time and operating costs.

Precision Engagement

The precise and accurate delivery of munitions has a long legacy for airmen and has been an integral aim of Air Force planning and procurement strategy for years. This core competency is at the heart of the operational concept of precision engagement spelled out in *JV 2010*.

Although past visions of precision employment often outpaced technological capabilities, we have made great strides. In the first operational B–2 tests the GPS-aided munition set a new standard for precision and reliability. In October 1996, three B–2s dropped 16 weapons against 16 aim points—destroying or badly damaging all targets. This level of precision will redefine the way we think about using mass in warfare, shifting us away from the number of aircraft needed to destroy a target toward the effects of a single plane.

Improving stand-off and all-weather precision capability is another critical area in precision employment. The joint direct attack munition adds an inertial navigation system and GPS-guided nose and tail kit to improve the accuracy of both the standard MK–84 general purpose bomb and BLU–109 penetrator munition. The joint air-to-surface stand-off missile is a precision long-range, stand-off weapon, and the joint stand-off weapon is a 1,000-pound accurate glide munition for attacking from intermediate stand-off ranges. These weapons fit various niches and together provide a full range of options to national leaders and military commanders.

This precision is not limited to weapons. The ability to drop cargo from aircraft and steer it to within a few feet of its target is on the horizon. And precision detection of targets, provided by the joint surveillance and target attack radar system (JSTARS), unmanned aerial vehicles (UAVs), Rivet Joint aircraft, and satellites is improving, largely because of more capable sensor technology. Precision engagement hones the usually blunt instrument of military power, providing the ability to deliver precision effects to meet political and military objectives.

F–22 (center) with F–15 (left) and F–16 (right).

U.S. Air Force

Information Superiority

Each service must develop its own capabilities in the area of information superiority, contributing to the ability of the joint force to gain and maintain it as envisioned by *JV 2010*.

The Air Force, makes distinctive contributions in information superiority with "heavyweights" for dominating the information medium such as the U–2, JSTARS, AWACS, Rivet Joint, and satellites, and the architecture to support their integration. Such systems are much in demand by JFCs worldwide during each phase of an operation and are being expanded every day. We recently demonstrated the ability to provide warfighters with real-time information through the rapid targeting system (RTS) that transmits pictures from airborne collectors such as U–2s, UAVs, or in the future from satellites directly to fighter cockpits, providing up-to-date pictures of the target area. This allows crews to put precision ordnance on target, greatly increasing their ability to find and hit mobile or stationary targets from troops to ballistic missile launchers.

Future capabilities to enhance information superiority include advanced communication and information systems, real-time information to the cockpit, UAVs, remote multi-spectral sensors, and advanced multi-spectral satellites. No doubt more ideas will be generated by the Information Warfare Battle Lab at Kelley Air Force Base.

There is immense promise in using UAVs to fill some critical gaps in information warfare. The Air Force currently operates the Predator UAV to collect information, and a UAV battle lab is being established at Eglin Air Force Base to explore the full potential of this technology. Future UAVs will be employed as surveillance and communications platforms and form an integral part of the "system of systems" so important to winning the information battle.

As the executive agent for battle management, the Air Force serves as joint force integrator and is working to provide JFCs of the next century with a picture of the entire battlespace—air, space, and surface forces—to facilitate real-time control and execution of air and space missions. This initiative will rely heavily on innovative efforts at the Battle Management/Command and Control Battle Lab at Hurlburt Field.

U–2 aircraft.

U.S. Air Force

Agile Combat Support

Because air and space forces provide worldwide response and are generally the first forces called forward in a crisis, we must remain light, agile, and far-ranging. The Air Force accordingly provides a core competency known as agile combat support, a concept that reaches beyond pure logistics to include functions such as force projection, engineering, and other combat support functions.

Logistics, the lifeblood of the military, is a prerequisite for asymmetric force application. The concept of focused logistics described in *JV 2010* involves a combination of information and logistics technologies which ensures that wartime assets consistently arrive at the right place at the right time—during theater-wide conflicts or military operations other than war.

logistics is a prerequisite for asymmetric force projection

The Air Force has been developing and refining practices to support focused logistics since 1994. We are shifting from logistics based on large stockpiles to a system that will get resources to warfighters on demand. This depends on a rapid, time-definite transport and communications system. Moving materiel by both commercial carriers and advanced airlift such as C–17s (an inter- and intra-theater lifter) and using innovative technologies to track cargo improves battlefield distribution by bringing the warfighting means closer to fielded forces, minimizing the overall size of a force.

Reducing the "footprint" of a deployed force is just part of our force protection effort. We are also looking into new ways to protect our people from various threats through a force protection battle lab at Lackland Air Force Base.

Quality people are the key to transforming the operational concepts and technologies identified in *JV 2010* into war-winning capabilities. Every service must continue to attract, recruit, and retain such individuals. As Air Vice Marshal Tony Mason of the Royal Air Force has said, "of all aerospace assets, only the value of people appreciates over time," a fundamental truth reflected in *JV 2010*.

To provide the proper background and common focus for employing air and space power, the Air Force will establish a new air and space basic course for new leaders. It will center on history, doctrine, strategy, and the operational use of air and space power and also will impart a thorough knowledge of capabilities provided by air and space forces. After this training most officers will go to operational assignments before moving into their functional specialties.

The services must work together to meet future security needs because our Nation expects its military professionals to apply the resources that are entrusted to them to their full potential with minimal casualties and risks. The contribution of the Air Force comes from our focus on providing the ability to exploit and control the air and space environment. This vision will serve the Nation well as we enter the 21st century and search for ways to prevent, deter, fight, and win wars.

JV 2010 paints a challenging picture. Indeed, it is difficult to exaggerate America's expectations for its Armed Forces. Each capability available today and in the future confers higher expectations. Yet in a world of unrelenting technological advances which can be harnessed for or against joint forces, there can be no retreat.

As General Henry ("Hap") Arnold, who commanded Army Air Forces in World War II, warned, "For us to have expended our effort on future weapons to win a war at hand would be as stupid as trying to win the next war with outmoded weapons and doctrines." Now is the time to invest in the future so that the Armed Forces will have the capable people, organizations, weapons, and doctrine to maintain our Nation's security in a dangerous world. JFQ

Patrol boat *Nunivak* off Haiti for Uphold Democracy.

U.S. Air Force (Val Gempis)

The Fifth Service Looks at Doctrine

By JOHN S. CLAY

EDITOR'S *Note*

For the Coast Guard, establishing a doctrine system is a momentous project. The thoroughgoing review of doctrine currently being conducted by the fifth service justifies serious consideration by every service. Under this examination the Coast Guard regards doctrine development as a process that standardizes how it thinks about and does its job, how it acquires dynamic feedback, and how it articulates its image as an institution. In this, the Coast Guard sees doctrine as a unifying vision. It must link its strategy and daily operations and facilitate development of acquisition requirements. This highly rational effort is thrusting our fifth service toward the desired systematic end-state.

Captain John S. Clay, USCG, is chief of the Office of Defense Operations at Headquarters, U.S. Coast Guard, and has twice commanded Coast Guard cutters.

The Coast Guard, having no doctrine command, chartered a field commanders' concept of doctrine team in 1994. Directed by operational flag officers, the team presented its findings to the commandant the following year. Common areas identified by the team as needing improvement were distilled into seven themes: unity of vision, efficiency, external links, training links, focus, unity of effort, and empowerment. These themes emerged as doctrine drivers. The team reported the need for a doctrine system and recommended that one be established. But

Port security for *USS Iwo Jima* during Desert Shield.

DOD

C–130s on flight line at Barbers Point, Hawaii.

U.S. Coast Guard

no publication describes the unique contribution of the Coast Guard

because findings by other teams (training and streamlining) were pending at the time, and the form of the Coast Guard was thus unclear, the doctrine team recommended that a focus group be appointed to develop and analyze specific options and costs of implementing such a system. The following article represents a status report on efforts by the doctrine focus group that was chartered by the commandant under the Directorate for Reserve and Training.

An inventory of Coast Guard publications and directives reveals that its current guidance is poorly organized. There is no standard approach to developing guidance throughout the service or across programs. Manuals are dated, and information and advice that logically should be included in them are often written into instructions to circumvent a cumbersome review process. Moreover, guidance is neither linked to higher level strategy nor connected to critical programs. Areas such as search and rescue, law enforcement, marine safety, and alien migration incidents are not treated in comparable ways. We have developed specific sets of guidance for each mission without looking for common ground. Operators must carry a library of manuals with them on patrol.

In addition, as the field commanders' report warned,

. . . there is no established mechanism to cycle the valuable knowledge accrued through operational experience and experimentation back to academia and training centers. . . . operational experience and experimentation tend to remain within local circles as opposed to becoming updates in the service as a whole, sub-optimizing operational procedures and preventing unity of effort.

The Current State

Organizational and system improvements occur only after failure. Lessons learned by one unit are not applied by others. How would the commanding officer of *USCGC Juniper* (the latest 225-foot buoytender) prepare for a catastrophe such as the downing of TWA flight 800? Does he know the underlying priority of people, environment, and property? Where does he seek guidance during that critical period between stimulus and response to incidents? The answers are not readily available. There is no collection of documentation that fully explains what our daily business is, how we do it, or how everything fits into an integrated system. There is no publication for internal or external consumption that describes the unique contribution of the Coast Guard to the public.

The inability to link daily business to a strategic vision also further complicates the process of generating requirements for system acquisitions. We

face the formidable task of developing a deep-water mission area analysis from scratch. The result is a series of directives, publications, and indexes that meets program needs but fails to capture the linkages and common features inherent in many of these processes. This leads to problems in both efficiency and effectiveness.

Does this mean we cannot do our jobs or that we anticipate operational failure? Not at all. But the current decremental budget environment and the reduction of 4,000 personnel is a cause for concern. Increasingly we encounter overlap among our programs in operational events such as the North Cape spill, escort of the Cuban-American flotilla, and defense operations in Haiti.

How did we get into this position? As the Coast Guard assumed more and more missions, guidance was written from a narrow, programmatic viewpoint. Time and exigency forced program managers to develop highly focused, specific guidance that gave little thought to a service strategic plan. While the guidance was often good, it failed to step outside the program's view and explain the larger impact daily actions have on the Coast Guard as a whole.

The long-term planning and budgeting process appears to drift among three main strategies: activities-based, resource based, and outcome-based. Activities-based, long-term planning focuses on missions that provide the most money in our budget. Concentrating counternarcotics operations in the Caribbean is a good example. Resource-based program managers compete for available funds for hardware. Those who promise the greatest savings may get the most money. Outcome-based, long-range planning utilizes risk assessments to formulate strategic planning. Outcomes are achieved when unit level tactics, techniques, and procedures (TTP) are linked to our strategic plan. This is the most effective way to ensure long-term resource support.

In recent years the Coast Guard, recognizing its historical ties to the defense establishment, has exploited joint and naval doctrine activities by having the unique non-redundant capabilities that it brings to national military strategy included in both joint and naval doctrine publications. Indeed, the Chairman has acknowledged the important role of the Coast Guard on his team by including the Coast Guard seal on the covers of all joint doctrine publications. In addition, the commandants of the Coast Guard and Marine Corps along with the Chief of Naval Operations will sign version 1.0 of the universal naval tasks list in which all three sea services incorporate their military operational and tactical essential tasks under one cover.

a good doctrine system will increase intellectual capital

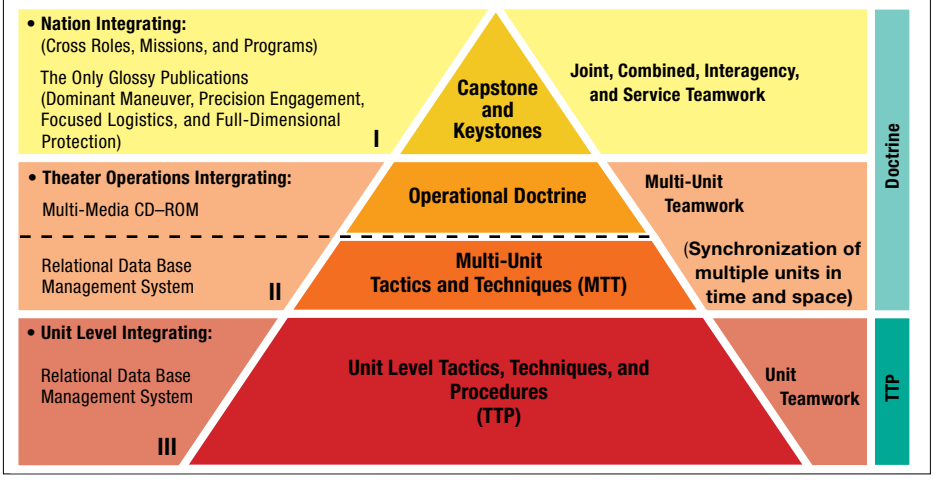
Desired State

Our vision is a system that facilitates the effective management of intellectual capital and improves the organization's speed of learning. We must replace the current stovepipe system with an outcome-based process of policy and procedures that integrates high level strategy documents and low level unit TTP. Some parts of this system are already in place, having proven their worth in several national and international crises. The focus is on developing a doctrine system to forge the horizontal and vertical links that will join these "islands of guidance" into a coherent system. We do not advance scrapping current guidance but rather seek to better organize and understand it. Simply stated, we are not trying to grow another bureaucratic arm but to connect the dots.

Doctrine can mean different things to different people. First one must understand what it is not. Doctrine is not a collection of weighty tomes designed to sit prominently on a sagging shelf. Nor is it a decree, proclaimed but never updated. It is a body of fundamental principles that guide service actions in support of national objectives. A doctrine system captures the best knowledge available about how to do things yet still accommodate judgment, innovation, and change. A good doctrine system will increase intellectual capital. The three levels shown in figure 1 illustrate such a system: level I, strategic; level II, multi-unit or force; and level III, individual unit.

Keystones are functionally derived from the capstone. The Coast Guard is currently in the process of writing its capstone together with the Center for Naval Analyses. Keystones define the way we function across other services and other Federal, state, and local organizations. Level I, national, contains strategic direction. Capstone and keystone documents translate national policy and budgetary guidance of government agencies into applicable strategic direction for our service. That direction identifies strategic policy above the Coast Guard and provides a

Figure 1. The Doctrine System



broad interpretation of how the service should implement it. The guiding principle of level I is joint, combined, and interagency teamwork to achieve national objectives.

Level II is the operational tier of doctrine where multi-unit tactics and techniques (MTT) are defined. It deals with specific movements and synchronized coordination of multiple units in time and space. At present, the closest examples of this level of guidance are portions of the search and rescue, maritime law enforcement, and marine safety manuals. The guiding principle of level II is intra-service teamwork to achieve service essential task objectives.

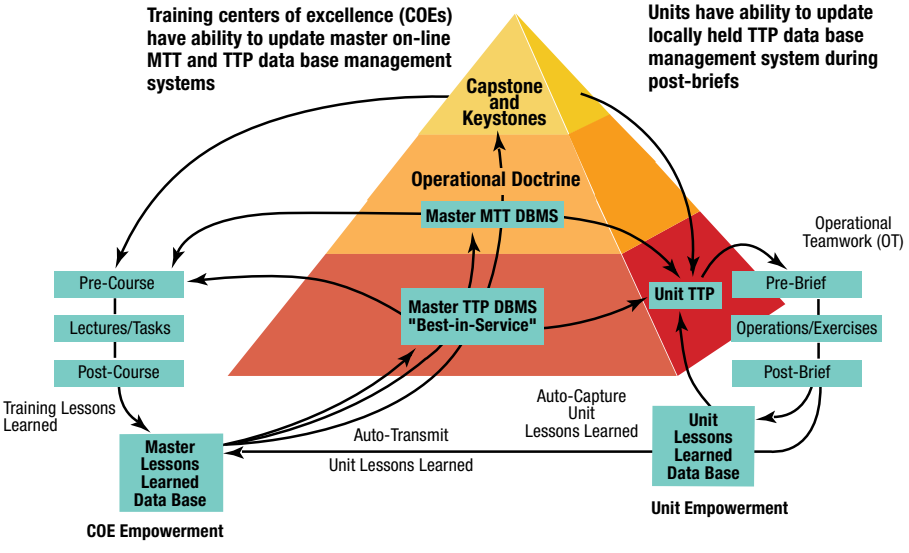
When the level of detail focuses on unit actions and tasks instead of multi-unit employment, a break is made to level III. As we transition from operational doctrine and multi-unit tactics and techniques (level II) to single-unit TTP, we no longer must operate with other units. Commanding officers are empowered and responsible for carrying out these TTP as they see fit, but consistent with service regulations and directives, safety considerations, and assigned missions. Guidance ceases to be doctrine at level III. The principle here is unit empowerment and intra-unit teamwork to achieve unit essential task objectives.

However, a doctrine system does not exist until another active ingredient is added, the near real-time feedback loops seen in figure 2. The current migration by the Coast Guard to a standard, Windows-NT based operating system, the availability of software applications, and pressing need for information sharing make this an ideal time for such an initiative. We envision a Coast Guard doctrine system in which after-action reports and doctrine/TTP lessons learned are captured during hot washups and automatically forwarded without operator intervention into an information system that permits the efficient review and updating of doctrine and "best-in-service" MTT and TTP data bases. Under such a system, lessons from Somalia, for example, extend beyond the participants. Cutters share tactics and techniques in executing a mission and strategic planners have access to a feedback mechanism based on real data.

HH–60J Jayhawk dropping litter basket.

U.S. Coast Guard

Figure 2. Real-Time Feedback Loops



The Benefits

A doctrine system is intended to achieve four objectives. First, it will standardize how we think about and do things as an institution. Since the 1980s the Coast Guard has undergone three transformations in its image. Early in that decade we were good guys. We were known for search and rescues and for helping the boating public through an extensive safety program. That image changed dramatically when our law enforcement program was greatly expanded and we earned the moniker "Smokies of the Sea." By the early 1990s our image became softer and environmentally more responsive because of our role in several highly publicized environmental crises. Two things are worth noting

U.S. Coast Guard (Steve Sapp)

Removing suspected drugs from freighter in Miami.

about these images of the Coast Guard. First, the transformations did occur and, second, they just happened. A doctrine system provides a forum for managing such changes.

Second, the doctrine system will standardize a methodology for doing the business of the Coast Guard. Without a direct link between the strategic and tactical, operators respond to crises based on whatever ad hoc knowledge and procedures are available in their immediate environment.

Third, it will provide a dynamic feedback system that allows us to capture the best methods and continuously improve, better manage our intellectual capital, and increase the speed of learning within the Coast Guard. Today we represent one of the most highly educated and trained services in American history. Countless operations are performed flawlessly every day. Given that, what does doctrine add? In a word, efficiency. Feedback loops are designed to capture new experience and innovations which furnish best-in-service data bases and an operational level doctrine library that links essential local tasks with strategic, long-term objectives.

Lastly, this system will enable us as an institution to clearly articulate the qualities, values, and principles that define the Coast Guard.

Implementation begins with developing capstone and keystone doctrine, then integrates all operational guidance to strategic level and finishes by fielding an on-line database to automatically capture lessons learned. It ensures the identification, capture, and availability of the best-in-service practices. It empowers multi-unit operational commanders to download best-in-service MTT and improve it as their own MTT, unit commanders to download best-in-service TTP and improve it as their own TTP, and training centers to automatically capture the deltas between best-in-service and modified MTT/TTP and own the process of updating and training to best-in-service MTT/TTP.

the doctrine system will standardize a methodology for doing business

The ultimate value of the system will be to create unity of purpose. It does this by directly linking strategic guidance to practical, day-to-day operations. It integrates prevention and response processes regardless of the mission and establishes horizontal and vertical linkages for guidance. It considers the unit people on-scene as key elements of the strategic process by empowering them to own TTP and automatically capturing their changes for consideration in future updates to TTP, MTT, and higher level guidance.

Finally, such a doctrine system is necessary in order to obtain the information superiority described in *Joint Vision 2010*.

Since the commandant's doctrine focus group has not completed its work, it is premature to speculate on options and potential costs; but as this article goes to press the results will likely have been briefed to both the chief of staff and the commandant of the Coast Guard. The bottom line is that the doctrine focus group confirmed the findings of the earlier work by the field commanders' concept of doctrine team, added value, and will recommend a doctrine system for the Coast Guard. If approved by the commandant, this effort will be expanded to include other critical constituencies within the Coast Guard and focus on a detailed implementation plan with cost estimates. **JFQ**

THE MILITARY SERVICES

military service—a branch of the Armed Forces of the United States, established by act of Congress, in which persons are appointed, enlisted, or inducted for military service, and which operates and is administered within a military or executive department. The military services include the Army, Navy, Marine Corps, Air Force, and Coast Guard.

Photos (clockwise, from top left): Navy—posting lookouts on *USS Norfolk* (U.S. Navy/Todd Cichonowicz); Air Force—F–J6C being maintained at Jordanian air base, (U.S. Air Force/ Paul R. Caron); Coast Guard—*USCG Steadfast* battling tanker fire (U.S. Coast Guard); Marine Corps—boarding CH–46 during Cooperative Osprey '96 (982d Signal Company, Combat Camera/M.A. Jones); and Army—clearing mines, Bosnia (55th Signal Company, Combat Camera/Jon E. Long).

NAVY

ARMY

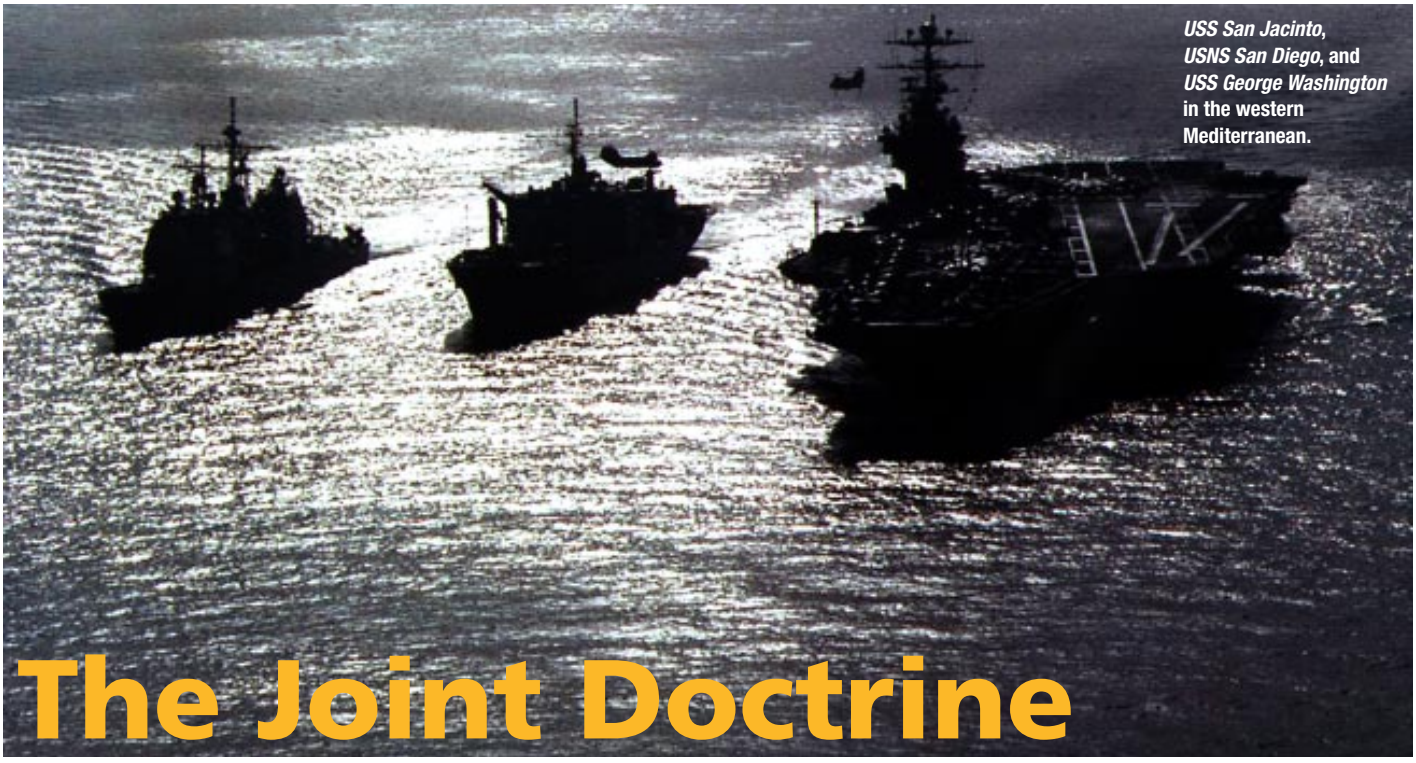
AIR FORCE

COAST GUARD

MARINE CORPS

As we change the way we fight, joint doctrine will remain the foundation that fundamentally shapes the way we think about and train for joint military operations.

—John M. Shalikashvili



USS San Jacinto, *USNS San Diego*, and *USS George Washington* in the western Mediterranean.

U.S. Navy (Jim Vidrine)

The Joint Doctrine Development System

EDITOR'S *Note*

Joint doctrine has made significant progress since the Goldwater-Nichols Act made the Chairman responsible for its development. Today, the joint doctrine development process is regarded as the most advanced in the world. It has become the thread that binds together the combat power of the services to yield an authentic joint effort. This achievement is attributable to the exercise of institutional responsibility for joint doctrine by the Joint Staff and the Joint Warfighting Center. Both organizations, working in concert with the combatant commands and services under the joint doctrine master plan, are dedicated to the continuing refinement of joint publications.

By DAVID A. SAWYER

The United States approaches the end of the 20th century with the preeminent military force in the world. This primacy is based in large measure on hardware and capability. No other nation can field such combat power for any type of military operation. Yet combat power alone does not guarantee success. The thread that binds combat power together to create this preeminent force is joint doctrine—the fundamental principles that guide the employment of forces from two or

Major General David A. Sawyer, USAF, is the director of operational planning and interoperability (J-7), Joint Staff.

Providing cover for amphibious assault, Cobra Gold '95.

Joint Combat Camera (Steve Thurow)

more services in coordinated action toward a common objective.

It is not pretentious to claim that our current joint doctrine hierarchy is the most advanced in the world. With the collapse of the Soviet system and its Warsaw Pact forces, no other military expends as much effort in the doctrine development process. The professionals who developed the system understood that correctly applying technology and disparate forces through effective joint employment concepts is a force multiplier. But comprehensive joint doctrine development has not always been a given. The system that produces it has grown over ten years from a haphazard and loosely coordinated process to a formal and sound one. This article contrasts former and present methods of development, recalls legislative and organizational revisions that led to today's system, and shows how it meets its goals through the current joint publication system.

the joint doctrine development process established new definitions, procedures, and structures

Doctrinal Voids

Congress directed a profound reorganization of the defense establishment in the Goldwater-Nichols Act. A key element of that law tasked the Chairman with "developing doctrine for the joint employment of the Armed Forces." This was a significant change because no single individual or organization had been previously responsible for joint doctrine. Joint pubs, then known as JCS pubs, were created in relative isolation under guidelines that formerly governed Joint Staff actions. There was no standard process for initiating, coordinating, approving, or revising joint doctrine. Moreover, there was no requirement for congruity between joint and service doctrine, nor was the difference between joint and service doctrine clear. Significantly, no mechanism incorporated the expertise, knowledge, requirements, etc., of unified and specified commanders in the doctrine they were expected to use. In addition, the system had no means of either identifying conceptual voids or addressing them. Doctrine was published without being formally evaluated, so that its validity might not ever be tested except in actual combat—obviously an unacceptable risk. Specific issues that are today recognized as critical in combat performance (such as intelligence, logistics, airspace control, space operations, etc.) were not addressed in joint doctrine.

Before Goldwater-Nichols there had been an earlier attempt to bring rigor to joint doctrine development and address some key doctrinal voids in warfighting. That effort, known as the joint doctrine pilot program, was initiated in 1983. It was implemented by the Chairman and designed to capitalize on the experience of CINCs by designating them to develop key doctrine publications and coordinate them with the other CINCs and all the services. Four projects were proposed and the developing CINCs assigned, with topics such as theater air defense and strategic air support to maritime operations. However, by the time Goldwater-Nichols was enacted some three years later only one project had been approved.

As a result of that law and DOD directives, the Chairman was authorized to develop and approve joint doctrine. Toward that end, doctrine was coordinated with the services and combatant commands to ensure that those organizations that would implement it participated in development. The Chairman created the Directorate for Operational Plans and Interoperability (J-7), Joint Staff, with a division dedicated to act as a joint doctrine caretaker. In addition, the Joint Doctrine Center was also established under J-7 at MacDill Air Force Base and later moved to the Tidewater area of Virginia. Its mission was to "assist in improving the combat effectiveness of joint U.S. military forces and unified and specified commands through the analysis, development, and assessment of joint and combined doctrine and tactics, techniques, and procedures." The Joint Doctrine Center is now a division of the Joint Warfighting Center at Fort Monroe to support the unified commands, services, Joint Staff, and defense agencies.

With organizational structures in place, a joint doctrine master plan was instituted to ensure an effective development process, identify major doctrinal voids, initiate projects to fill them, and reorganize the joint pub hierarchy. The process was included in Joint Pub 1-01, *Joint Publication System Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program,* which appeared in April 1988. It outlined principles, guidelines, and a conceptual framework to initiate, validate, develop, coordinate, evaluate, approve, and maintain joint doctrine as well as joint tactics, techniques, and procedures (JTTP) and joint technical publications. Joint Pub 1-01 established the process as policy in one authoritative source, readily available to all personnel and organizations in the system. Each joint pub produced under the new system formed a part of overall joint doctrine.

The joint doctrine development process established new definitions, procedures, processes, and structures—all aimed at producing doctrine that maximized military capabilities by

Troops assembling at Port-au-Prince airport during Uphold Democracy.

Combat Camera Imagery (Val Gempis)

matching concepts to technology, forces, and national goals. The system produced doctrine as authoritative guidance but was not intended to restrict the authority of joint force commanders when organizing forces and executing missions in a manner deemed most appropriate to maintaining unity of effort. Joint Pub 1-01 sets forth the purpose of joint doctrine and JTTP. Doctrine guides the employment of joint forces, provides national positions for combined doctrine (operating with allies), establishes a foundation for joint training, provides a basis for developing instructional material for the professional military education system, and informs other government agencies concerned with the employment of joint forces.

Key Positions

The revised development process created the joint doctrine working party (JDWP) which is chaired by the chief, Joint Doctrine Division (J-7), as a forum for systematically addressing joint doctrine and JTTP. Its members include representatives from the combatant commands, services, Joint Staff, and selected service schools and senior colleges. JDWP meets every six months and provides a venue for candid consideration of important joint doctrine and JTTP issues and a means for experienced warfighters to contribute expertise to the development of joint doctrine and JTTP.

Key positions established in Joint Pub 1-01 include lead agent, primary review authority, Joint Staff doctrine sponsor, coordinating review authority, and technical review authority—each providing important input to publication development. Lead agents may be combatant commands, services, or Joint Staff directorates, but regardless they develop, coordinate, review, and maintain the pubs for which they are responsible. Lead agents designate primary review authorities who are responsible for actually developing and maintaining appointed documents. The Joint Staff doctrine sponsors assist lead agents and primary review authorities, coordinating drafts for the Joint Staff and processing final documents for approval. All combatant commands and services as well as the Joint Staff appoint coordinating review authorities, who coordinate with and help primary review authorities develop, evaluate, and maintain publications. In addition, technical review authorities may be designated to provide expertise if deemed necessary. The process follows a regulated flow designed to allow maximum input from interested parties within the system.

The joint doctrine publication process begins with project proposals that may be submitted by combatant commands, services, or directorates of the Joint Staff and generally are considered at semiannual JDWP meetings. Once accepted, J-7 validates these requirements with the combatant commands and services and then initiates program directives that outline the scope, references, and milestones of the projects. Then the directives are formally coordinated by the Joint Staff together with the combatant commands and services. On approval, they are distributed and the lead agents select primary review authorities to develop the publications.

The primary review authorities develop and staff two drafts with the combatant commands, services, and Joint Staff. The lead agents make every effort to resolve outstanding issues prior to forwarding revised final drafts to the doctrine sponsors on the Joint Staff for final coordination and approval. Lead agents also research and recommend all changes, cancellations, and consolidations of other publications that are affected by promulgation of new documents. This final step ensures integration across the entire system as doctrinal changes force revision to other pubs.

The full cycle results in publications that are fully coordinated and consistent with existing joint doctrine. Recognizing that concepts are important to warfighting performance, the Chairman concluded that doctrine pubs must be accessible, understandable, and user friendly. The legacy of dusty tomes that were only consulted by desperate action officers seeking technical guidance on obscure points contrasts dramatically with pubs today. With greater dissemination of publications, an intensive education effort within the professional military education system, and initiation of the joint doctrine awareness action plan (which includes this JFQ Forum), joint doctrine is spreading its influence more than in the past. The awareness action plan will take advantage of various media to bring doctrine to users. In-

cluded in it are force employment briefing modules, a joint doctrine reference professional library desk set, a professionally produced joint warfighting video, a joint force employment course of instruction, and multimedia CD–ROM. All elements of this ambitious plan are under development and will be available during 1997. Commanders, leaders at all levels, staff members, action officers, and service members everywhere then will have effective tools for understanding both why and how forces are employed.

the purpose of developing authoritative doctrine is to share knowledge among warfighters

Thinking warfighters are more effective at every level. More important, warfighters who understand the relationship of warfighting concepts are better prepared when faced with new situations.

The purpose of developing and disseminating authoritative doctrine under a well-regulated system is not to issue rigid fighting instructions but rather to share knowledge among warfighters. This knowledge then is internalized for use in decisionmaking regardless of the uniqueness of the situation, rank of the individuals involved, or level of the decision. Moreover, this shared body of knowledge enables those who must implement decisions to use their understanding of the general principles on which they are based to achieve specific goals.

Keeping Ahead of Change

America's ability to employ forces jointly has increased dramatically over the last ten years. Part of the reason for this preeminence is the overall effect of changes prompted by the Goldwater-Nichols Act. Besides reorganizing the chain of command, this law resulted in an improved system for proposing, developing, and maintaining joint doctrine. Consequently, many more members of the Armed Forces contribute to the process, thus strengthening the final products. Specific voids are filled. Throughout the process a single philosophy served as the cornerstone for development: military performance depends as much on concepts for employment as on technology and forces.

The joint publication system has begun to utilize the Internet as well as other technology to promulgate doctrine. For example, *JFQ* can now be accessed on the World Wide Web through the joint doctrine home page (http://www.dtic.mil/doctrine). This typifies the attempts to keep doctrine ahead of changes. Critical issues develop daily, requiring the system to react and adapt.

Effective employment concepts must complement weapons, force size and composition, training, capabilities, and tactics to produce victory. These concepts, generally known as doctrine, are so pervasive that they are frequently taken for granted. Looking back at campaigns, the casual observer usually sees only results and thinks little about how concepts shaped battlefield events. The influence of conceptual thought on warfare is most apparent when it is absent. One example from World War II, taken from the *Joint Vision 2010* draft "Concept for Future Joint Operations," illustrates this point.

By the beginning of the war, both the French and the Germans possessed similar armor, aircraft, and communications technologies. Yet their "concepts" for combining and employing these capabilities were remarkably different. Not only were the French inclined to use the tank as an infantry support weapon, but they also did not recognize the value of a rapid-response, highly mobile armored reserve. They spread their tanks along the "impenetrable" Maginot Line, relying on . . . the Ardennes Forest, and the border with Belgium to deny the Germans entry into France.

The Germans combined strategic and operational art with an innovative tactical employment concept that integrated aircraft, armored formations, and communications. This allowed them to draw the Allies' attention to the Netherlands, bypass the Maginot Line through the Ardennes, and break out of the forest into France with "blitzkrieg" warfare that caused France to fall within days.

Examining historical events through a doctrinal lens is useful but is not the total answer to effective doctrine development. As good as doctrine is, it could be better. Furthermore, we must not fall into the trap of thinking we have found the 100 percent solution. As *JV 2010* observes:

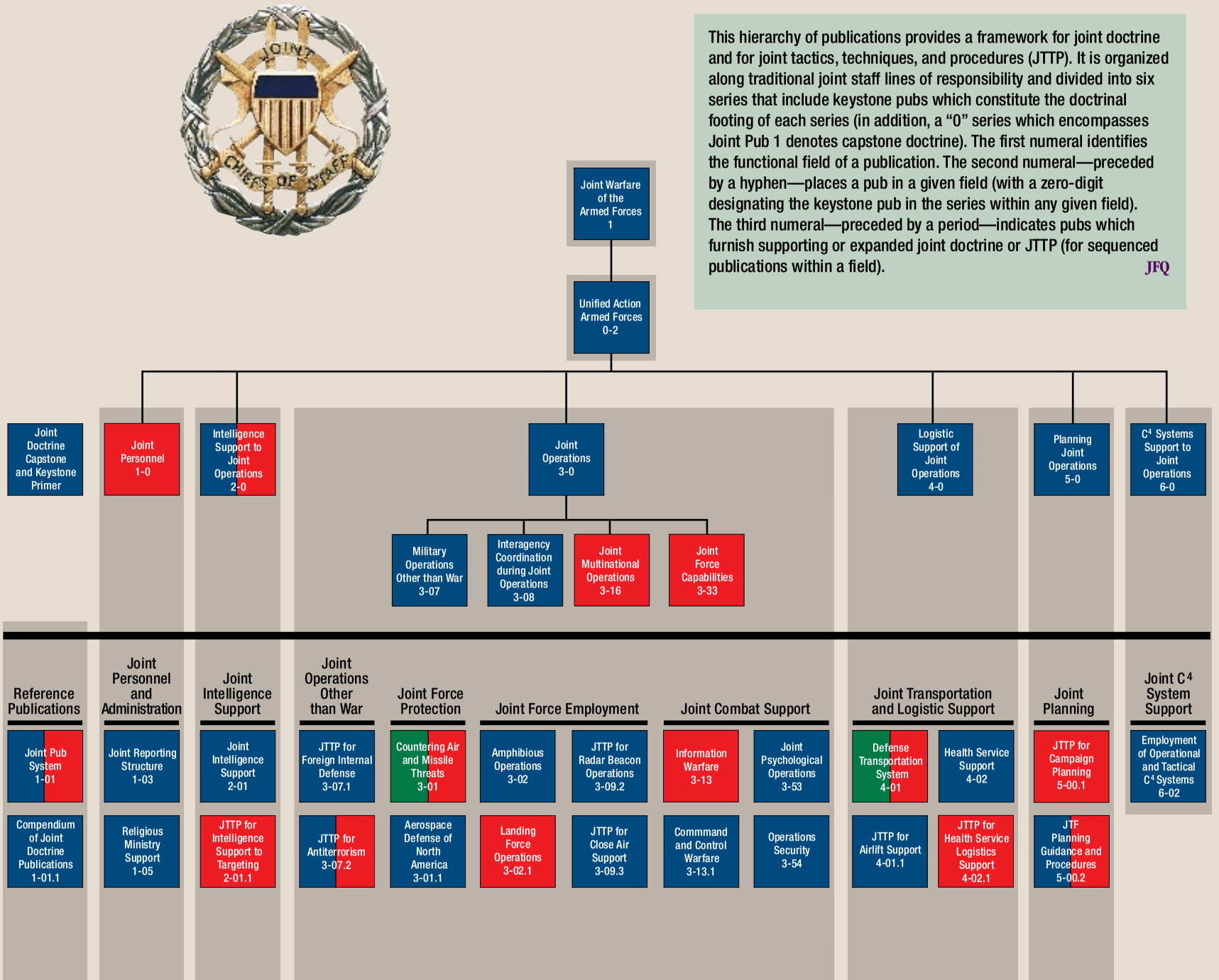
Joint doctrine is a critical ingredient for success because the way in which leaders think and organize their forces will be as important as the technology . . . to conduct future joint operations. Future joint doctrine must articulate the process required for successful joint planning but must be flexible enough . . . to guide our forces in joint and multinational operations. . . .

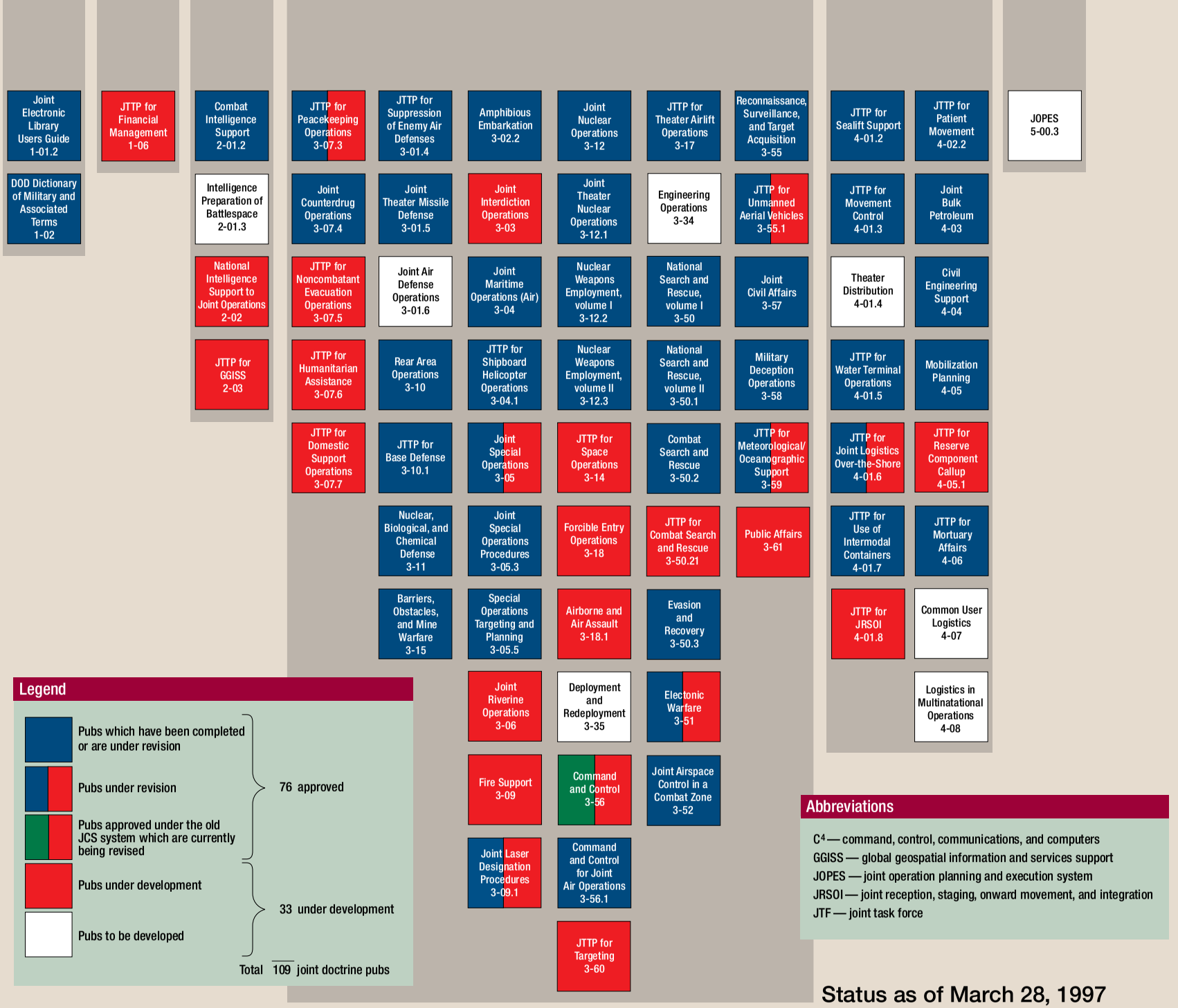
We will discover new ways to change the development process for joint doctrine. Thus, we must integrate "top-down" doctrine throughout the development cycle, while continuing to ensure that joint doctrine fully incorporates the strengths that each service brings to joint warfare.

Our Armed Forces remain preeminent. Many factors contribute to their standing, including technology, military capabilities, and people. Joint doctrine has been the catalyst in bringing these factors together, transporting joint force employment to new heights—and unquestionably making the whole greater than the sum of its parts. **JFQ**

The Joint Publication System

This hierarchy of publications provides a framework for joint doctrine and for joint tactics, techniques, and procedures (JTTP). It is organized along traditional joint staff lines of responsibility and divided into six series that include keystone pubs which constitute the doctrinal footing of each series (in addition, a "0" series which encompasses Joint Pub 1 denotes capstone doctrine). The first numeral identifies the functional field of a publication. The second numeral—preceded by a hyphen—places a pub in a given field (with a zero-digit designating the keystone pub in the series within any given field). The third numeral—preceded by a period—indicates pubs which furnish supporting or expanded joint doctrine or JTTP (for sequenced publications within a field). JFQ




Joint Electronic Library Users Guide 1-01.2
DOD Dictionary of Military and Associated Terms 1-02
JTTP for Financial Management 1-06
Combat Intelligence Support 2-01.2
Intelligence Preparation of Battlespace 2-01.3
National Intelligence Support to Joint Operations 2-02
JTTP for GGISS 2-03
JTTP for Peacekeeping Operations 3-07.3
Joint Counterdrug Operations 3-07.4
JTTP for Noncombatant Evacuation Operations 3-07.5
JTTP for Humanitarian Assistance 3-07.6
JTTP for Domestic Support Operations 3-07.7
JTTP for Suppression of Enemy Air Defenses 3-01.4
Joint Theater Missile Defense 3-01.5
Joint Air Defense Operations 3-01.6
Rear Area Operations 3-10
JTTP for Base Defense 3-10.1
Nuclear, Biological, and Chemical Defense 3-11
Barriers, Obstacles, and Mine Warfare 3-15
Amphibious Embarkation 3-02.2
Joint Interdiction Operations 3-03
Joint Maritime Operations (Air) 3-04
JTTP for Shipboard Helicopter Operations 3-04.1
Joint Special Operations 3-05
Joint Special Operations Procedures 3-05.3
Special Operations Targeting and Planning 3-05.5
Joint Riverine Operations 3-06
Fire Support 3-09
Joint Laser Designation Procedures 3-09.1
Joint Nuclear Operations 3-12
Joint Theater Nuclear Operations 3-12.1
Nuclear Weapons Employment, volume I 3-12.2
Nuclear Weapons Employment, volume II 3-12.3
JTTP for Space Operations 3-14
Forcible Entry Operations 3-18
Airborne and Air Assault 3-18.1
Deployment and Redeployment 3-35
Command and Control 3-56
Command and Control for Joint Air Operations 3-56.1
JTTP for Targeting 3-60
JTTP for Theater Airlift Operations 3-17
Engineering Operations 3-34
National Search and Rescue, volume I 3-50
National Search and Rescue, volume II 3-50.1
Combat Search and Rescue 3-50.2
JTTP for Combat Search and Rescue 3-50.21
Evasion and Recovery 3-50.3
Electonic Warfare 3-51
Joint Airspace Control in a Combat Zone 3-52
Reconnaissance, Surveillance, and Target Acquisition 3-55
JTTP for Unmanned Aerial Vehicles 3-55.1
Joint Civil Affairs 3-57
Military Deception Operations 3-58
JTTP for Meteorological/ Oceanographic Support 3-59
Public Affairs 3-61
JTTP for Sealift Support 4-01.2
JTTP for Movement Control 4-01.3
Theater Distribution 4-01.4
JTTP for Water Terminal Operations 4-01.5
JTTP for Joint Logistics Over-the-Shore 4-01.6
JTTP for Use of Intermodal Containers 4-01.7
JTTP for JRSOI 4-01.8
JTTP for Patient Movement 4-02.2
Joint Bulk Petroleum 4-03
Civil Engineering Support 4-04
Mobilization Planning 4-05
JTTP for Reserve Component Callup 4-05.1
JTTP for Mortuary Affairs 4-06
Common User Logistics 4-07
Logistics in Multinatational Operations 4-08
JOPES 5-00.3
Legend
Pubs which have been completed or are under revision
Pubs under revision
Pubs approved under the old JCS system which are currently being revised
76 approved
Pubs under development
Pubs to be developed
33 under development
Total 109 joint doctrine pubs
Abbreviations
C4 — command, control, communications, and computers
GGISS — global geospatial information and services support
JOPES — joint operation planning and execution system
JRSOI — joint reception, staging, onward movement, and integration
JTF — joint task force
Status as of March 28, 1997

RETHINKING THE Joint Doctrine Hierarchy

By JOSEPH W. PRUEHER

***USS Rainer* alongside *HMAS Sydney* off Hawaiian Islands.**

U.S. Navy (John Guzman)

EDITOR'S *Note*

PACOM relies upon joint task forces (JTFs) to conduct a wide range of operations in its area of responsibility. However, task forces are one level of joint organization that has not profited extensively from defense reform and joint doctrine initiatives over the past decade. Those efforts have not focused on JTF needs and are not user-friendly to joint trainers. Doctrinal publications are stovepiped—narrowly based on functions rather than on multi-functional JTFs. It might be time to scrap the current system because of its waning utility. Moreover, this approach to doctrine might constrain thinking on future operations and otherwise impede implementation of *Joint Vision 2010*.

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

As the joint community embarks on linking joint doctrine to the operational concepts in *Joint Vision 2010*, it may be helpful to consider the joint task force (JTF) perspective. Ironically that is the level improved least by reforms such as the Goldwater-Nichols Act, yet it has carried much of the joint operational workload. JTFs have driven operations from Sea Angel (typhoon disaster relief in Bangladesh) to Pacific Haven (Kurdish refugee reception and onward movement in Guam) to Provide Comfort and Uphold Democracy in other regions.

Since U.S. Pacific Command (PACOM) adopted two-tiered command and control in 1990, over 40 command post exercises, field training exercises, and actual operations have employed the concept. It includes theater-level command as the first tier and JTFs as a preferred second tier—the level that would likely plan and conduct joint contingency operations throughout the PACOM area. The two-tiered model has a deliberate training protocol; pre-identified JTF commands; a designated and trained cadre of JTF augmentees primarily drawn from the staffs of the commander in chief, U.S. Pacific Command (CINCPAC) and PACOM service component headquarters; and CINC–JTF commanders' conferences.

JTF training and operations experience includes working with JTF core headquarters from all services across a range of operations primarily in the lower end of the conflict continuum. This article discusses JTF lessons learned, conclusions drawn from them vis à vis joint publications, and recommendations to better support JTFs.

Lessons

By examining assessments from various JTF commanders, after action reports, and items from the joint universal lessons learned system (JULLS), PACOM joint trainers isolated the five most frequently identified JTF training needs.

Crisis action planning. Activities associated with developing plans and orders to execute joint actions. Normally involves mission analysis and the development, analysis, comparison, and selection of courses of action; includes warning orders, course of action sketches, commander's estimates, and operations orders.

Managing information. Activities associated with the staff's ability to process information from internal and external sources. More than identifying sources and making connections, it also determines what we need to know, who needs to know it, and how we get it to users.

Developing staff battle rhythm. Since time is critical in crisis action planning, how staffs manage it is key. This includes integrating internal meeting schedules with the command decision cycle to ensure timely decisions.

most JTF mission requirements call for a high degree of multi-functionality

Forming JTF. Concurrent with planning and at times deploying to forward locations, JTFs flesh out single-service tactical organizations with multi-service attachments, liaison teams, and augmentees (some staffs growing from fewer than 100 to over 600 personnel).

Developing time phased force deployment data (TPFDD). Forces flow into theater based on the joint operations planning and execution system (JOPES). TPFDD is the major JTF interface with JOPES. Without aggressive management of TPFDD, JTFs lose control of force flow. The development and management of TPFDD has been a recurring deficiency in JTF exercises.

These tasks represent the core knowledge and skills JTF staffs need to make the leap from single-service tactical to JTF headquarters reporting directly to CINCPAC. To develop training plans to meet such needs, JTF staffs and PACOM joint trainers created a mini-library of reference sources (see figure 1) that may be useful to JTF commanders and staffs as well as joint trainers.

Figure 1. PACOM Mini-Library

Joint Pub 1,
Joint Warfare of the Armed Forces

Joint Pub 0-2,
Unified Action Armed Forces

Joint Pub 3-0,
Doctrine for Joint Operations

Joint Pub 5-0,
Doctrine for Planning Joint Operations

Joint Pub 5-00.2,
Joint Task Force Planning Guidance and Procedures

Joint Pub 3-56,
Command and Control Doctrine for Joint Operations

USACOM Joint Task Force Master Training Guide

Armed Forces Staff Pub 1,
Joint Staff Officer's Guide

universal joint task list
(UJTL)

joint mission essential task list
(JMETL)

joint operations planning and execution system
(JOPES)

joint unit lessons learned system
(JULLS)

remedial action program (RAP)

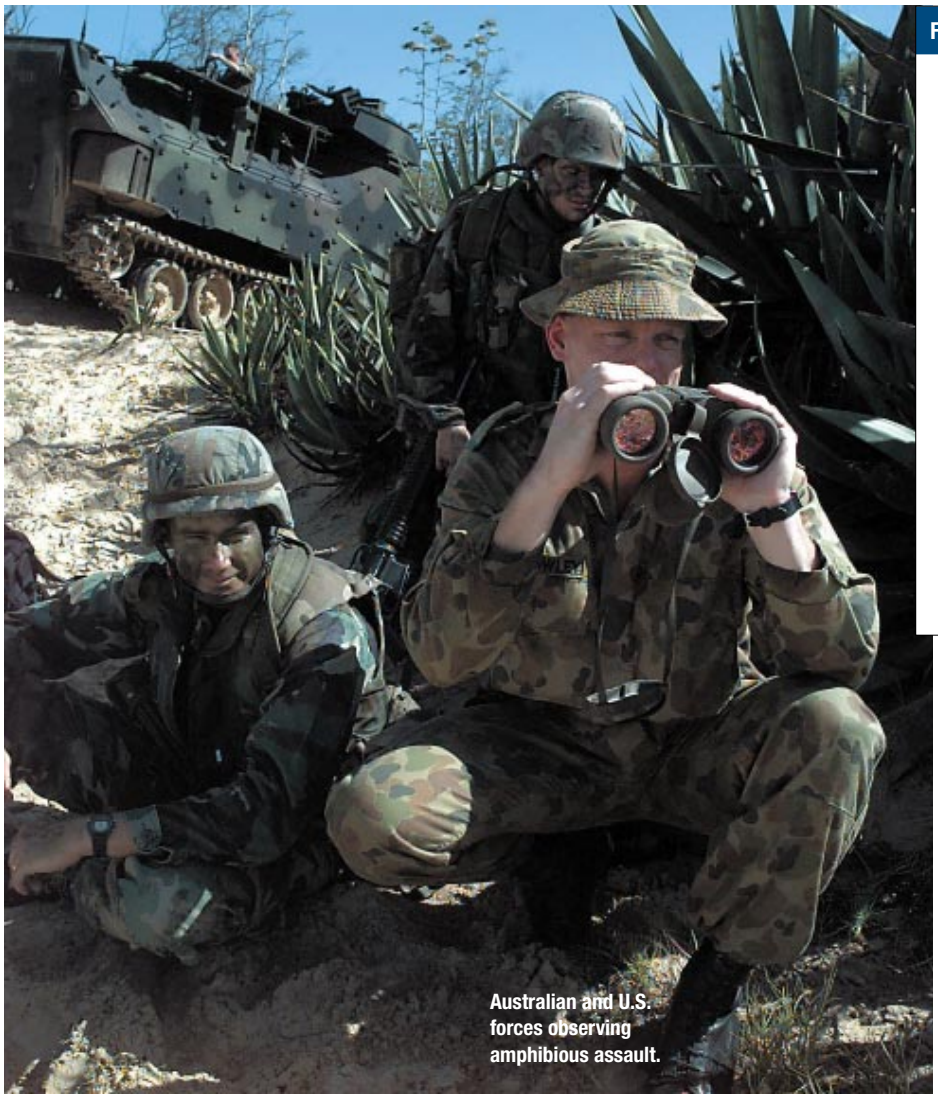
mission specific tactics,
techniques, and procedures
(TTP)

Conclusions

Based on an analysis of JTF needs, we have discovered some helpful markers. One is that JTF work is time sensitive. This is driven not only by inherent mission urgency but the concurrent task of standing up JTF headquarters—initiating communications with a new higher and probably new subordinate headquarters, organizing a J-staff and supporting boards and teams, assimilating augmentees, and establishing an internal information flow and staffing procedures.

Another conclusion is that most JTF missions require multi-functionality. Joint personnel, intelligence, operations, logistics, and command and control converge on JTFs in varying degrees depending on the mission. As an area expands to include joint aspects, the difficulty of integrating functions increases dramatically.

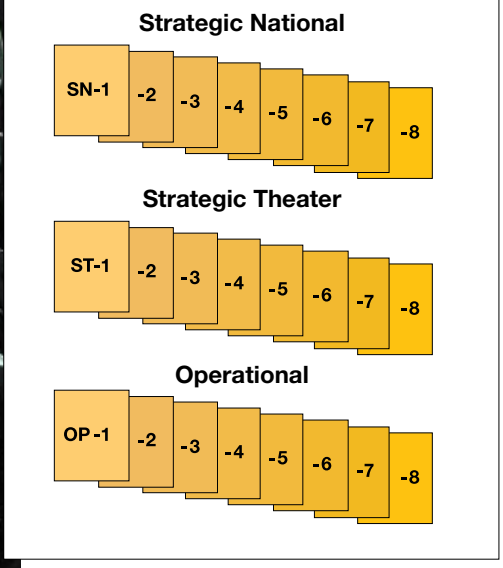
This leads to a third conclusion, that the doctrine hierarchy is not user friendly in most JTF operations. First, doctrine segregated by function is unwieldy for a staff trying to integrate joint capabilities and staff functions. The regime for joint doctrine makes it easy for functional users to identify applicable titles, but JTF staff structures and responsibilities may not mirror a joint staff. Thus the doctrinal J-code hierarchy with its numbering system based along traditional joint staff lines



Australian and U.S. forces observing amphibious assault.

U.S. Navy (Felix Garza)

Figure 2. UJTL Doctrine Hierarchy Model



of responsibility does not mesh well with JTF staffs.

The amount of doctrine found in the joint publication system is daunting (see pages 40–41). Navigating through the vast menu of sources to select applicable guidance is tough. Where do you start? What is "need to know" and "nice to know" for any given mission?

Recommendations

The joint community would be better served with improvements in three areas. In the near term we should produce a multi-functional publication focused on the JTF level to address the five topics identified as core joint competencies. It would act as the nucleus of a set of JTF references. Complementing it would be titles on specific missions such as humanitarian assistance. The JTF master training guide published by U.S. Atlantic Command is a start. It has a mission focus on a single level and combines useful directives, guidance, formats, and samples from many sources. The popular "purple book" published by the Armed Forces Staff College, *The Joint Staff Officer's Guide*, offers much of this material to theater and national level audiences. These hybrid volumes are well received since they are almost one-stop-shopping references. JTF commanders and staffs would benefit from a comprehensive pub focused on their level for both training and operations. The revised JTF planning publication (Joint Pub 5-00.2) is one step in the right direction and should be expanded to include personnel, intelligence, operations, logistics, and C^4 guidance and aids.

Second, it may be time to abandon the current joint doctrine hierarchy. The functional area regime served as a good linear roadmap for creating joint doctrine but may impede meeting future needs—implementing *JV 2010*. The system in use is unwieldy, perhaps an indicator that its utility on that level is waning. JTF staffers find it difficult to maneuver through its 109 approved and emerging titles. Moreover, it may constrain thinking on how to operate in the future.

A practical and less restrictive model may already exist: the universal joint task list (UJTL) hierarchy (figure 2). It has a mission—vice functional area—focus and is banded by levels of joint command: strategic national, strategic theater, operational, and tactical. It even has a task and level numbering system. The logic used to build UJTL can be applied to thinking about joint doctrine. The basis should be the mission or task, not a J-staff code.

There would be keystone pubs for each level of joint command rather than for either staff or functional focus under the current system. They would be multi-functional like that described for JTFs.

UJTL also relates well to the joint warfighting capability assessment areas used by the Joint Staff. This match, although not perfect, portends a linkage among doctrine, training, strategy, and resource allocation that only exists today through extraordinary effort. Full integration of these now disparate areas would provide a more logical approach to addressing readiness issues that surface through the joint monthly readiness report, lessons learned from joint operations and training, and resource requirements through the Joint Requirements Oversight Council processes. Recognizing that an adjustment in one area impacts on others, a common structure will be helpful in the joint community's effort to implement the *JV 2010* framework.

Third, in the longer term we must look beyond paper and electronic libraries with CD–ROM technology. We must meld disparate developments in information technologies and warfighting concepts, organizations, and hardware to fit together optimally.

25th Infantry Division departing for Tandem Thrust.

U.S. Army (Kevin Thomas)

we have given JTF staffs responsibilities without the right tools to do the job

We should ease the burden that integration puts on JTFs. We have given them integration responsibilities but not the right tools. Applicable formats, doctrine, checklists, lessons learned, samples from exercises and operations, situational awareness presentations, and modeling should be available on demand—not just more information faster but better and more useful information in a decisionable format. On-screen information and decisionmaking would be like a combination of CNN and an Internet browser running concurrently. Instead of assimilating news and preparing e-mail messages, JTFs would monitor common operating pictures of the battlespace while drafting and staffing operations orders. Moreover, on-line help would come from both military and civilian data bases worldwide such as JULLS. Key words and phrases would be hyperlinked to applicable source documents regardless of data base location. Operators could keep aware of lessons learned in real time instead of waiting for the next JULLS CD.

The tools would support tutorials (training and evaluation), simulations and modeling, and operational modes. If constructed correctly, they would be level transparent—users would think they were made specifically for their missions. The information environment could be shared with higher and lower staffs for collaborative planning. An effective information environment could reduce deployed staffs by deploying information instead.

Although we have focused on the JTF level, there are implications for all levels of joint command. Experience in PACOM and elsewhere indicates that much joint doctrine is helpful, but a stovepipe hierarchy may impede fully implementing *JV 2010*. While adopting the UJTL model would be helpful in focusing on joint doctrine users and further integrating doctrine with strategy, training, and resource allocation in the near term, it may be time to assess the overall phenomenon of jointness. That joint doctrine is nearly overwhelming to implementers may indicate that we may be going down the path of jointness for the sake of jointness. *JV 2010* is a step toward refocusing on jointness for the sake of joint warfighting.

We have made tremendous strides in developing joint doctrine to complement the quality of our people, technology, and training. We can capitalize on this foundation by taking advantage of operational experience and emerging information technology. Focusing on the JTF level provides more than insights for improving joint operations today. It is key to expanding our thinking about the joint operations and information environment of tomorrow. JFQ

Pacific Command
50TH
Anniversary
. . . see page 122

Combined operations capitalize on our peacetime training, help generate and sustain international support, and enable our forces to provide the high-leverage capabilities required to achieve decisive outcomes against any adversary.

—National Military Strategy (1995)

Opening ceremonies for Peace Shield '96, Ukraine.

DOD (R.D. Ward)

DOCTRINE for Combined Operations

By GEORGE A. JOULWAN

F–16 and A–10 during Deny Flight.

Combat Camera Imagery (Jamie Bowman)

EDITOR'S ***Note***

Combined operations have become a reality and necessity for almost every type of mission. Joint doctrine contributes to combined operations by ensuring a common understanding among the Armed Forces which, in turn, projects a consistent operational view to allies and coalition partners. Developing combined doctrine similar to that produced for NATO and in Korea will help. Collectively, our joint and combined doctrine provides a model for other militaries. But we can't expect that other nations will always accept our doctrine. Success in combined operations also is based on communicating individual perspectives, resolving differences, and working toward a shared vision.

National military strategy directs, current global security demands, and reality requires that the Armed Forces be prepared to conduct the full range of military operations in concert with the militaries of other nations. *Joint Vision 2010* puts it this way:

It is not enough just to be joint when conducting future operations. We must find the most effective methods for integrating and improving interoperability with allied

and coalition partners. Although our Armed Forces will maintain decisive unilateral strength, we expect to work in concert with allied and coalition forces in nearly all of our future operations, and increasingly, our procedures, programs, and planning must recognize this reality.

Whether through an alliance or coalition, or simply because of proximity and shared goals, we must work with the militaries of other nations. Indeed, U.S. European Command (EUCOM), as the intercontinental link in the North Atlantic Treaty Organization (NATO), conducts operations in a joint and combined environment on a routine basis. Recently, such operations have illustrated that multinational challenges are also joint challenges.

Over thirty nations—including Russia and other non-NATO partners—deployed in support of Joint Endeavor in Bosnia-Herzegovina. Able Sentry in Macedonia is a U.N. operation. Sharp Guard, a maritime embargo of the former Yugoslavia, was a combined Western European Union-NATO operation. Deny Flight was a NATO air operation in support of the U.N. Protection Force. Assured Response, a noncombatant evacuation in Liberia, found our forces working with a cease fire monitoring group of the Economic Community of Western African States that operated under a mandate from the Organization of African Unity. During Support Hope, a humanitarian mission in Rwanda, U.S. forces supported the U.N. Assistance Mission and French in Operation Turquoise. Moreover, Provide Comfort in northern Iraq, Quick Response in the Central African Republic, and other multinational operations have been expressions of a real capability, not theory. While no two are the same, these joint and combined operations will be the rule in the future, not the exception.

As Bosnia has proven, our forces will not work in isolation. They will coordinate military operations with a growing range of nonmilitary organizations: national, international, and private. All governments and private support agencies are involved today in the most prevalent operations, including peace support, humanitarian, and disaster relief. The United Nations, nongovernmental agencies, Organization for Security and Cooperation in Europe, and Organization of African Unity are only some of the groups that EUCOM sees as assuming greater roles in multinational military operations within our area of responsibility.

This plethora of activity makes it critical for the Armed Forces to have a mutually acceptable approach to operations, namely joint doctrine. Moreover, we need an agreed way for doctrine to capture how we deal with multinational and interagency operations.

The EUCOM experience with the Partnership for Peace (PFP) program, the joint contact team program, and multinational exercises have indicated that training and shared ideas (about such issues as operations, organization, and commitment to civilian control of the military) are paramount to multinational and interagency operations. And the key to the military aspects of multinational operations is doctrine. Common doctrine describes how to plan and conduct operations from the preparatory stage to follow-through and redeployment. Mutual understanding of doctrine provides a basis for the training required to work together to accomplish a mission.

PFP and other multinational exercises furnish the common bond that has enabled the forces of nations as diverse as Russia, Sweden, Estonia, and Turkey to combine in Joint Endeavor. But despite these successes we must do better.

For example, the Navy is improving its ability to conduct combined operations. The Naval Doctrine Command has taken a major step in this direction with the development of multinational maritime operations doctrine. Although oriented on the maritime medium of warfare, the objective of this effort is writing doctrine for multinational maritime operations with non-NATO countries, which puts emphasis on multinational operations where it belongs. Formal alliances and regional security arrangements usually have codified procedures to enable their members to work together. When none exist, however, as in coalitions organized in response to emerging crises, coordinated operations are difficult. And even absent the pressure crises bring, multilateral training to prepare for them is fragmented and inefficient when the arrangements are ad hoc.

First Steps First

In order to reduce its dependence on ad hoc arrangements, the United States must complete the development of its own joint doctrine. Partners and friends often model their doctrine on ours. We must thus be consistent in applying our doctrine. For instance, when Navy officers are asked how air-ground operations are coordinated, they should provide the same answer as Army and Air Force officers. Notwithstanding the fact that we do not have a full complement of joint doctrine, frequently we are not familiar with even that which is available. We have made major strides over the last few years but still have hard work ahead.

future military operations will primarily be joint and require a solid base of joint doctrine

Future military operations will primarily be joint and require a solid base of joint doctrine. Most multinational operational interface occurs on a level that is inherently joint to some extent. This does not imply that service doctrine is unimportant. There is a large amount of interface in multinational operations that requires detailed knowledge of service doctrine. Thus it is even more important that service doctrine conforms to joint doctrine. When cultural, linguistic, political, and military differences come into play, it is too much to demand that other nations detect that we conduct military operations one way within services but differently in joint operations.

General George A. Joulwan, USA, is commander in chief, U.S. European Command, and also served as commander in chief, U.S. Southern Command.

Unloading relief supplies for Kurds in northern Iraq.

Combat Camera Imagery (Efrain Gonzalez)

Russians arriving at Tuzla for Joint Endeavor.

U.S. Air Force (Ken Bergmann)

The change in warfare from a primarily symmetrical to a coordinated asymmetrical activity conducted at the speed of a data byte has dictated that all the services more closely harmonize their efforts. The challenge is to capture service experience and move ahead jointly. This may demand a compromise by all parties but the potential payoff to operations across the spectrum is staggering.

As the Chairman pointed out at the joint doctrine working party meeting in October 1995, the first round of joint doctrine development was heavily predicated on service level doctrine out of necessity. Future development must be based on a shared vision of military operations—*JV 2010*. But while moving forward to genuinely joint doctrine, we have not slain the dragon which stands in the way of completing the first round. This must not continue.

We have been debating joint doctrine—which is critical to joint and combined operations—too long and too acrimoniously. Joint Pub 3-56, *Command and Control of Joint Operations*, has been in and out of preparation since 1987. How can we presume to lead, train, or coordinate with other nations when we cannot agree on something as fundamental as command and control? Joint Pub3-01, *Joint Doctrine Countering Air and Missile Threats*, is another case in point. This area must be tightly coordinated in a coalition effort, yet we do not have approved doctrine for this important mission. I'm not suggesting that multinational operations can't succeed without a full complement of joint doctrine publications. On the contrary, EUCOM has proven its ability to execute many combined joint operations. However, agreement on joint doctrine would make the process much easier. Also, without such doctrine the chance for mistakes increases and that can translate into more friendly casualties in military operations.

We have found a good basis in EUCOM through PFP exercises for conducting operations with our NATO allies, partners, and friends. This step underscores my contention that successful military operations are far more likely when there is general understanding and agreement on how to conduct joint and combined operations. The speed with which military alliances and coalitions are put together today and expected to react

Latvian members of Baltic battalion.

DOD (R.D. Ward)

does not allow time for debating procedures when our political leaders choose the military option. The first critical step towards successful multinational operations is comprehensive doctrine that incorporates multinational dimensions in each joint pub.

Two titles being developed—Joint Pubs 3-16, *Joint Doctrine for Multinational Operations,* and 3-08, *Interagency Coordination During Joint Operations*—will fill some of this doctrinal void. But the former volume will not resolve the larger issue of working with other militaries. In fact, it may engender a perception that multinational operations are exceptions. I contend that they are the rule and that a more holistic approach is needed. As *JV 2010* states, "Future joint doctrine must articulate the process required for successful joint planning but must be flexible enough to serve as a broad framework to guide our forces in joint and multinational operations."

to expect all partners to accept our doctrine outright is unrealistic and unnecessary

Moving Forward

Once we have settled joint and service doctrine, the next stage will be to produce broadly based doctrine for a myriad of future international alliances, coalitions, and interagency situations. To expect all partners to accept our doctrine outright is unrealistic and unnecessary. In some cases combined doctrine will be developed as it was in the past with NATO and Combined Forces Korea. In others we can only hope to explain our doctrine to partners. At the same time, we must also be prepared to discern their doctrinal concepts. Harmonizing differences will be one of the greatest hurdles faced by commanders on all levels. It was one of the biggest initial challenges in Bosnia. Even with NATO allies and years of exercises and cooperation, we had to reconcile differences in approaching peace enforcement operations. Joint Pub 3-07.3, *Joint Doctrine for Peace Support Operations*, will eventually address some of our own national issues. But in Bosnia, despite some existing service doctrine, we were unprepared down to the lowest levels in explaining our doctrine for peace enforcement.

That last point is critical. Joint and combined operations place tremendous responsibility on junior and noncommissioned officers. A firm foundation in joint doctrine will develop an ethos that both impels the right choices and demonstrates doctrinal leadership to our allies and partners. This foundation must be nurtured in one's formative years and reinforced over a career. Anything less will not yield the cultural change needed to meet national security challenges in the future.

The world has changed and so have the problems confronting the Armed Forces. We must squarely face tough issues as a joint team rather than as a collection of superstars coming together for an all-star game. Combined joint operations are not the wave of tomorrow but the reality of today. We cannot afford to focus on national doctrine without considering its implications for combined operations. EUCOM believes that, although we have a separate publication on this subject in draft, doctrine for multinational operations must be seamlessly woven into our joint doctrine. In concert with the doctrine development process, we seek a cultural change—to be members of a seamless joint team that executes all the plays from the same book. This demands that determined education and training prepare new members of our team to operate on their doctrinal instinct, even in a complex multinational environment.

This journey will not be easy. *JV 2010* is an excellent blueprint. We must move ahead to develop doctrine that facilitates effective and efficient joint and combined operations and continue to actively deploy it on all levels throughout the Armed Forces. In both EUCOM and NATO it has been a matter of one team-one fight, and advancing the development of joint and combined doctrine will only improve on our team's efforts. **JFQ**

Coming of Age:

Theater Special Operations Commands

By HENRY H. SHELTON

5th Special Forces Group jumping with British and Kuwaiti commandos.

U.S. Army (Tracy L. Leahy)

MH–53J approaching crash site near Dubrovnik, Croatia.

DOD

In Spring 1996, U.S. Special Operations Command, Europe (SOCEUR), was supporting the NATO Implementation Force in the former Yugoslavia. When the plane carrying the Secretary of Transportation crashed near Dubrovnik, SOCEUR was tasked to employ its unique capabilities in a search and rescue effort. Special operations forces (SOF) helicopters searched by hovering up and down mountainsides in extremely hazardous weather conditions. A joint force comprised of Army Special Forces (SF), Navy Sea, Air, Land teams (SEALs), and both Air Force special tactics personnel and Pave Low helicopters located the downed aircraft. The SOCEUR commander then assumed total responsibility for the mission, organizing British, French, German, Spanish, Croat, and U.S. forces in the grim task of recovering the 35 victims of the crash.

With the recovery complete, the SOCEUR commander and his staff started their return trip to Stuttgart. While they were still in the air, a new mission arose. A deteriorating situation called for rapid evacuation of noncombatants from the civil war in Liberia.

EDITOR'S *Note*

During any given week in 1996, more than 4,600 special operations forces (SOF) personnel were deployed in 65 countries. From peace operations to combat, theater special operations commands (SOCs) have demonstrated their value in a wide range of missions. Their success has made SOCs active participants in peace engagement under the geographic CINCs. This is attributed both to the organizational structures created by Congress which institutionalized special operations and to joint doctrine. This body of doctrine defines the role of SOCs and provides the requisite foundation for the conduct of special operations as well as psychological operations and civil affairs.

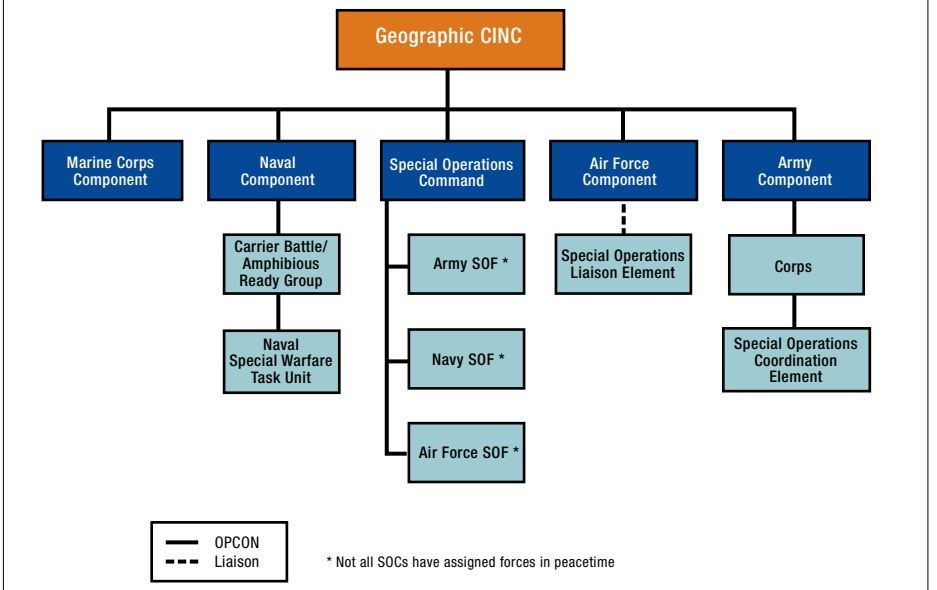
General Henry H. Shelton, USA, is commander in chief, U.S. Special Operations Command.

The special operations command (SOC) commander headed for Africa as a joint task force (JTF) commander. Liberia was in chaos, with well armed and often drugged or intoxicated gangs turning the streets of Monrovia into a free-fire zone. Diplomats, relief workers, and U.N. observers were trapped and in grave danger. Three key tasks surfaced: to establish a staging base in Sierra Leone for transporting the evacuees to a safe haven in Senegal, secure the U.S. embassy, and evacuate U.S. and third country nationals.

Reacting to a no-notice tasking order SOCEUR assembled forces at a staging base in Sierra Leone. The 352nd Special Operations Group from Mildenhall, England, deployed both fixed and rotary-wing support while MH–47Ds belonging to the 160th Special Operations Aviation Regiment arrived from the United States. Theater-based conventional assets joined with Army Special Forces (SF), Navy SEALs, and Air Force special tactics personnel. The integration of joint SOF became apparent as personnel arrived at the airfield and were greeted by friends and acquaintances of long standing. Most SOCEUR staff members had served previous assignments with the operational units arriving in Sierra Leone, and virtually all the units involved had worked together. In the regionally oriented special operations community there are few strangers.

An air bridge was created from Monrovia to Freetown, Sierra Leone, which rescued 2,115 people from 71 countries. Special operations MH–53J and MH–47D helicopters tallied 354 hours in 65 sorties, with more than a third flown with night vision goggles. When the initial crisis was resolved by the evacuation of the highest threat areas, and unique SOF capabilities were no longer required, the SOCEUR commander transferred JTF responsibilities to a conventional commander and withdrew, thus completing a textbook case of modern SOF employment.

Theater Special Operations Forces



Consolidating SOF

The Cohen-Nunn amendment to the FY87 National Defense Authorization Act radically changed the way special operations forces were managed. It established the Office of Assistant Secretary of Defense for Special Operations and Low Intensity Conflict and the U.S. Special Operations Command (SOCOM). A service-like organization took shape as responsibility for SOF was consolidated under SOCOM which eventually assumed control of all U.S.-based SOF. It held the purse strings with head of agency responsibility for the acquisition of SOF-unique matériel and a discrete funding line (major force program 11). In Cohen-Nunn, Congress recognized that the things that make SOF different from conventional and strategic forces dictates a command structure which ensures cohesion and optimal use of limited resources.

in Cohen-Nunn, Congress recognized the things that make SOF different from conventional and strategic forces

The essence of SOCOM is joint interoperability which is approached in three dimensions. First, forces are trained and equipped to work together. Second, a framework of joint doctrine and joint tactics, techniques, and procedures effectively guides SOF employment. Finally, standing organizations exist to ensure that the full utility of SOF is realized across the continuum of military operations. This article is focused on an aspect of this third dimension, theater SOCs and the need to develop them fully into the resources that they were intended to become—the special operations components of the theater combatant commands.

The geographic combatant commands established SOCs as subordinate unified commands in the 1980s. Moreover, U.S. Forces Korea set up an SOC to deal with SOF matters and forces on the peninsula. The commands evolved from various sources with roles that remain somewhat different. In general, each SOC exercises operational control of assigned forces, has responsibility for SOF-peculiar logistical requirements of assigned forces, and forms the core of a joint special operations task force able to act independently or as the special operations component of a larger joint/combined task force. Ultimately, the theater SOCs are responsible to CINCs for integrating and employing SOF in theater plans.

Implementation of Goldwater-Nichols relied on an updated, highly expanded body of doctrine that defined joint warfighting concepts. The basis of our current joint special operations capability is codified in five joint pubs.[1] The doctrinal roles of a theater SOC commander are to exercise operational control over joint SOF, to act as the principal advisor on special operations, and to be the joint force special operations component commander. Because special operations must be flexible and adaptable, joint doctrine gives the theater CINCs broad latitude in actually assigning and controlling SOF assets (see theater SOF structure in the accompanying figure). When appropriate, command and control of SOF may be carried out by other subordinate unified commands, JTFs, and service or functional component commands.

Growing Pains

The theater SOCs conduct peace operations, exercises, and combat operations. Those that belong to unified commanders in the European, Pacific, and Southern regions have forward-based and rotationally deployed SOF on a full-time basis. In the Central and Atlantic regions, however, SOCs employ CONUS-based forces to meet exercise and real-world commitments. Long-standing arrangements preclude some SOF from assignment to SOCs. Naval special warfare forces (SEAL platoons and special boat detachments) deploy integral to carrier battle or amphibious ready groups, and SEAL delivery vehicle units go to sea on designated submarines. Civil affairs and psychological operations responsibilities remain under the headquarters of the theater unified commands, though the preponderance of them are designated SOF by statute. In most cases, however, such assignments represent SOF operating in exclusive support of conventional force commanders.

Developing organizations have growing pains, and this was particularly true of SOCs in the late 1980s and early 1990s. Without exception they were undermanned, and many members were young special operators inexperienced in staff work. In addition, service component commands were not eager to loose either forces or missions which they felt completely capable of controlling. In many cases the reluctance to pass responsibilities to SOCs was not without foundation because it takes time and experience to develop a capable staff and fully functioning organization.

Congress sought to enhance the cohension of theater SOF by mandating general or flag rank (one-star) officers as SOC commanders in Europe and the Pacific, and later for the Central and Southern regions. Substantial improvement in SOC staff capability began in the early 1990s. Formal manpower reviews established war and peacetime requirements. Personnel increases were programmed, and SOCOM efforts to alleviate immediate shortfalls solved many pressing problems.

joint doctrine for SOF was tested with great success in virtually all regions

As the quality and quantity of SOC personnel increased, emerging joint SOF doctrine was tested in the varoius theaters during exercises and operations. The SOCs employed their organizational and planning skills in combat, humanitarian assistance, and counter-drug operations around the world. They proved their value to CINCs and became integral to the overall effort, thereby earning a place at the table. Today, SOCs manage major portions of peacetime engagement programs and are prepared to furnish unique capabilities. Several have responsibilities as standing rapid deployment task forces and as staffs for theater CINCs.

Coming of Age

Theater SOCs, through their commanders, staffs, and association with SOCOM, contribute depth of knowledge, experience, and expertise across a spectrum of special operations capabilities not otherwise replicated in theater. Routine operations present an entirely different and often more telling basis for evaluation. Each theater SOC plays a key role in peacetime engagement. In FY96, an average of 4,627 SOF personnel were deployed in 65 countries each week. The preponderance operated under control of SOCs. Today, most forward based and deployed Army, Navy, and Air Force SOF operate as integrated joint forces to provide CINCs with unique, flexible capabilities. Moreover, they can exercise command and control over conventional assets ranging from submarines to special Marine air-ground task forces and aircraft from all services.

SOCOM focuses on ensuring that SOCs are properly resourced with relevant doctrine, personnel, matériel, and budgets to execute their roles in support of theater campaign plans. Theater SOCs have been agile and responsive partners of conventional forces around the world as part of national military strategy. Assigned the full range of special operations missions and exercising the appropriate responsibilities, SOCs continue to demonstrate the synergy achievable any time and place through the routine integration of service SOF into a cohesive whole. By providing CINCs with unique assets to complement conventional forces, SOCs have come of age and have clearly demonstrated the soundness of a trained and ready joint force. JFQ

NOTES

[1] Joint Pub 3-05, *Doctrine for Joint Special Operations,* Joint Pub 3-05.3, *Joint Special Operations Operational Procedures,* Joint Pub 3-05.5, *Joint Special Operations Targeting and Mission Planning Procedures,* Joint Pub 3-53, *Doctrine for Joint Psychological Operations,* and Joint Pub 3-57, *Doctrine for Joint Civil Affairs.*

Let our advance worrying become advance thinking and planning. Out of intense complexities intense simplicities emerge.

—Sir Winston Churchill

Combat Camera Imagery (Val Gempis)

Unloading equipment at Port-au-Prince, Haiti.

Single Port Management

By WALTER KROSS

EDITOR'S *Note*

TRANSCOM serves as the DOD single worldwide manager for common user ports of embarkation and debarkation. Single port management is necessary to ensure the seamless transfer of cargo and equipment in any given theater. However, single port management is a doctrinal concept that has not been institutionalized by geographical CINCs. The consequences were revealed in delays that hindered port movements during operations such as Desert Shield/Desert Storm, Joint Endeavor, and Uphold Democracy. To ensure that future deployments are conducted successfully, guidance on the responsibilities of the single port manager must be clearly defined in joint doctrine.

General Walter Kross, USAF, is commander in chief, U.S. Transportation Command, and previously served as director of the Joint Staff.

While joint doctrine evolves, the Secretary of Defense has designated U.S. Transportation Command (TRANSCOM) as the single worldwide manager for common user ports of embarkation and debarkation. Yet this doctrinal concept has not been fully embraced by the theater warfighters, the geographic CINCs in whose areas of responsibility the ports lie. As TRANSCOM endeavors to execute its charter to provide strategic land, sea, and air transport across the full range of military operations, it is imperative that the geographic CINCs

be well informed on the validity, pertinence, and value added of single port management doctrine and be committed to implementing it.[1]

Single port management doctrine will provide the continuity and seamless transfer of cargo and equipment at seaports and aerial ports, an important consideration largely missing in contingencies such as Desert Shield/Desert Storm, Uphold Democracy, and Restore Hope. The principles contained in Joint Pub 4-01, *Joint Doctrine for the Defense Transportation System*, have been tested in exercises conducted in the Pacific by the Army component of TRANSCOM, Military Traffic Management Command (MTMC). However, three major challenges remain. First, the geographic CINCs have not fully accepted the doctrine in contingency plans. Second, doctrine on single port management must be included in revisions of all pertinent joint pubs. Third, the concept must be included in all joint training and theater level exercises.

TRANSCOM, through its Air Force component, Air Mobility Command (AMC), operates strategic aerial ports in both established theaters where forces and infrastructure are permanent and contingency theaters where forces and infrastructure are temporary. Current doctrine has the unified CINCs planning on well-defined support for contingency aerial port operations, a mission TRANSCOM meets by using AMC deployable tanker airlift control elements and mission support teams for contingencies. But challenges remain in their execution. For example, the director of mobility forces (DIRMOBFOR)—a key player in aerial port management—is addressed in Joint Pub 3-17, *Joint Tactics, Techniques, and Procedures (JTTP) for Theater Airlift Operations,* and Joint Pub 4-01.1, *JTTP for Airlift Support to Joint Operations*:

DIRMOBFOR exercises coordinating authority between the airlift coordination cell (ALCC), air mobility element (AME), or tanker airlift control center (TACC) if no AME is deployed, joint movement center (JMC), and the joint air operations center (JAOC) in order to expedite the resolution of any airlift problems.[2]

The issue is educating users and following doctrine. In Joint Endeavor, controversy over aerial port management and airlift staging/support requirements resulted in the theater command not providing the personnel needed for ALCC to effectively coordinate with DIRMOBFOR and AME. Consequently, AME struggled to perform the missions. DIRMOBFOR was assigned to Vincenza, Italy, isolated from the theater command in Stuttgart, Germany. That compounded coordination problems and hampered the interface between theater and strategic airlift. Army commanders, in their rush to put forces on the ground, consistently pushed tactical vehicles and personnel ahead of airfield operations equipment and operators resulting in a 3-5 day delay of airflow into the theater. Additionally, Army cargo was not moved off the airfield in a timely manner at Taszar and Tuzla, and encampments were built on valuable staging and airfield parking areas.

as a result of Joint Endeavor, problems with aerial port management doctrine are being addressed

As a result of Joint Endeavor, problems with aerial port management doctrine in areas such as DIRMOBFOR have been recognized and are being addressed. In the interim, lack of doctrine and formal agreements between TRANSCOM and unified commands over seaport management in the theater means seaport operations have been conducted on an ad hoc basis.

TRANSCOM, through MTMC, usually manages seaports of embarkation and debarkation in any given theater. However, when deploying forces and sustainment to a contingency theater, the command is not always selected to manage ports of debarkation, a mission that MTMC efforts have sought to clarify and improve over the past several years.

MTMC operates 25 common-user water seaports worldwide. It books military cargo with commercial carriers, contracts for terminal services, interfaces with host nations on seaport-related issues, prepares documentation such as ship manifests, develops and operates seaport management systems, and conducts surveys of seaport capabilities around the world. In spite of proven MTMC expertise in global seaport management and the assignment of that mission to TRANSCOM under the unified command plan, theater CINCs have not routinely employed MTMC to manage seaport services in the past, especially in contingency theaters where it lacks permanent peacetime presence. Recent deployments illustrate why MTMC and TRANSCOM have made integration of the single seaport management concept into joint doctrine and the defense transportation system such a priority.

Operational Experience

Desert Shield was the first of many contingency operations in which ad hoc arrangements resulted in inefficiencies and confusion. For example, 24th Infantry Division equipment initially arrived by sea at Ad Dammam, Saudi Arabia, in September 1990. Members of the 7th Transportation Group offloaded cargo and managed the seaport of debarkation. Although its primary expertise lies in transportation operations, the group continued to manage the port during the operation. Military standard transportation and movement procedures cargo records were incomplete, and intransit visibility to the theater CINC was not readily available. Cargo continued to be offfloaded from ships and stockpiled on docks. Accountability was lost and onward movement to the troops was sometimes frustrated. Through summer and autumn 1991, MTMC gradually assumed the seaport management mission during redeployment, freeing the 7th Transportation Group to redeploy to the continental United States.

A year later, our troops were deployed to Africa twice. During Restore Hope in Somalia, the joint task force (JTF) commander initially assigned seaport management to the Navy and later to the Army. Shifting responsibility resulted in confusion over who was in charge and on at least one occasion

Loading tanks onto *Cape Douglas* at Antwerp, Belgium.

U.S. Army (Pamela B. Simmons)

Loading vehicle into hold of *President Adams* in Port of Oakland.

DOD

enabled the service with seaport control to give priority to its own requirements while other cargo was delayed.[3] During a similar deployment, Support Hope in Rwanda, MTMC played a key role in planning for seaport operations at Mombassa, Kenya, and performing a full range of functions. It provided positive experience and lessons in developing single seaport management.

U.S. forces were also deployed to southwest Asia in 1994 for Vigilant Warrior because of an Iraqi threat. MTMC participated in the planning and was among the first units on the ground. Here it performed the full range of seaport management responsibilities, to include documentation oversight, information management, and liaison with the host nation. When operating elements of 7th Transportation Group arrived, MTMC continued managing the port as the group provided the seaport operations work force. During this event the management and operations roles were better defined than in Desert Shield/Desert Storm. Although imperfect, deconflicting responsibilities and the overall success of Vigilant Warrior have made the operation into a model for subsequent work on the single port manager concept.

MTMC personnel were among the first to deploy to Haiti in 1994 for Uphold Democracy, but the seaport management responsibilities were split between MTMC and an Army composite transportation group. The lack of clear roles for seaport management and seaport operating forces resulted in a duplication of effort, competition for resources, and complicated relations between the organizations.

Recent deployments clearly point to a need for improved planning and execution of seaport management and operations. Experience in Desert Shield/Desert Storm, Uphold Democracy, and Restore Hope revealed the value of consistent joint doctrine. The shift in responsibility from one organization to another created the need for working interfaces at critical times and resulted in loss of cargo visibility, documentation, and accountability. Without a grasp of how operations work, seaport personnel waste their time resolving organizational issues when they should be focused on CINC requirements. Finally, as each organization is different, commanders can never be sure that they have proper support or that the sequence of ship offloading reflects their priorities.

seaport management and operations functions must be clearly defined and understood by everyone

Facing the Challenge

Several basic tenets must be applied to improve the strategic/theater interface. First, CINCs must know immediately which organization will be seaport manager and reflect that factor in their plans. Second, the seaport manager must remain constant so that changes in seaport operators are transparent to the supported CINCs. Third, CINC requirements must be foremost, with priorities translated directly into workload instructions for seaport operators. Fourth, CINCs must be aware of where their cargoes are in the defense transportation system. Fifth, to accomplish these tasks, MTMC and an Army composite transportation group must be deployed early, possibly even on the first plane.[4] Finally, joint training should integrate and exercise different joint seaport operating force packages in various scenarios and geographic areas, testing joint forces to plan, execute, and coordinate such operations under realistic conditions.

To effect change, seaport management and operations functions must be clearly defined and understood by everyone. This recognition must be reflected in both joint and Army doctrine as well as in arrangements between TRANSCOM and theater CINCs.

Loading tank onto *USNS Cuato* in Saudi Arabia.

U.S. Army (Robert Elliott)

These responsibilities must also be reflected in operation plans, and accountable organizations must be trained. The TRANSCOM action plan, *Defense Transportation System 2010*, precisely sets that goal:

An efficient and timely transfer of cargo, passengers (including patients) and information between strategic and theater elements is key to responsive force projection. From the user's perspective, this exchange must be "seamless"; that is, the responsible procedures, systems, and organizations are "transparent" to the ultimate customer and result in a fort-to-foxhole delivery system.

A plateau in doctrine development was reached in a 1995 agreement between the commanding general, MTMC, and the Army Chief of Transportation who determined that a common understanding and clearly documented responsibilities are imperative. Their organizations developed a "concept of management and operations of strategic, common-user contingency seaports," more commonly referred to as the single port manager (SPM) concept of operations.

This concept defines distinct roles and responsibilities for seaport managers and operators. It outlines seaport manager functions needed to control the strategic flow of cargo and information between the worldwide seaport of embarkation and a hand-off to the theater CINC and identifies seaport operator functions required to move and document surface cargo. Key aspects of the SPM concept are that MTMC—a TRANSCOM component—will provide planners to supported CINCs to develop seaport management and operations requirements during planning. MTMC, at the request of supported commanders and under the direction of TRANSCOM, conducts seaport assessments, establishes contact with local seaport authorities, and determines availability of host nation support. MTMC deploys a seaport management cell into theater that translates the requirements of theater CINCs into workload instructions for seaport operators. Under this concept, MTMC serves as the seaport manager in all scenarios, from the most primitive, requiring over the shore delivery, to the most sophisticated, such as in Saudi Arabia. Finally, MTMC acts as seaport manager throughout an operation, beginning with planning and continuing until the last cargo returns home.

Although the SPM concept of operations was a real accomplishment, an agreement between two Army organizations does not make the single seaport manager concept a reality. It must also be advanced in joint pubs which set forth doctrine, principles, and policy to govern joint activities. As reflected in its action plan, TRANSCOM is in the process of submitting changes on aspects of single seaport management within the joint publications review cycle.

Building the Future

The single port manager concept envisions MTMC as the theater seaport manager through the use of management cells with elements located under theater CINCs or JTF staffs and at each designated common-user seaport. The management cell is part of a larger joint strategic seaport operating force package designed by U.S. Atlantic Command. It is comprised of elements from TRANSCOM, MTMC, 7th Transportation Group, Military Sealift Command (the Navy component of TRANSCOM), Navy and Marine terminal service forces, and Coast Guard. Capabilities include command, control, and communications; seaport preparation, operations, security, and safety; and logistics. Command and control is built around an MTMC seaport management cell.

As MTMC establishes itself as worldwide single seaport manager, it must ensure that it can perform effectively. A fundamental step is identifying and training managers. The initial concept envisions seaport management cells with preselected military and civilian personnel which would perform management functions similar to their peacetime jobs. They would prepare for a wartime mission through routine training exercises.

MTMC–Pacific, with headquarters at Wheeler Army Airfield in Hawaii, implemented SPM training in 1994 using management teams of military and civilian personnel from their headquarters and each Pacific medium port command. Equipment to support seaport operations is now prepositioned in Okinawa for quick transit to facilities in the Pacific. The teams enabled MTMC–Pacific personnel to tailor a seaport management package to perform the manager mission at seaports where there is no U.S. military presence.

In Europe as in the Pacific, MTMC has a long-established personnel structure which staffs seaport management cells that were successfully deployed in

Support Hope and Vigilant Warrior. The personnel, training, and expertise are in place and able to conform to CINC requirements.

The command also has established a small permanent presence in southwest Asia to provide regional seaport management. Its personnel have the skills to perform contingency seaport management functions and offer continuity to ensure that theater CINC priorities and guidance are met from the onset of a contingency. They are aware of host nation sensitivities and port business practices; and they have the capabilities to train follow-on active and Reserve component personnel. New arrivals in theater will not have the corporate memory or institutional knowledge that senior MTMC military and civilian personnel bring to the table.

While pulling seaport management personnel from the existing command structure is viable for smaller humanitarian contingencies, re-engineering to reduce peacetime force levels complicates seaport management planning for major regional contingencies. In the ongoing struggle to reduce peacetime force structure and maintain adequate readiness, MTMC is looking externally in order to staff management cells. The Army currently uses contract supervision and cargo documentation detachments which are not assigned to MTMC during peacetime. However, they are designed to perform functions which MTMC envisions belong to contingency seaport management cells. The contract supervision detachments provide transportation terminal services through contracts for loading and discharging cargo from ships or barges and clearing cargo from terminals. The cargo documentation detachments perform functions required to load and discharge cargoes or containers at terminals. Contract supervision and cargo documentation detachments, augmented by existing MTMC staff personnel, can effectively manage a seaport.

re-engineering to reduce peacetime force levels complicates seaport management planning

MTMC has worked closely with Forces Command to determine how units can support the SPM concept. The primary challenge is perceived doctrinal prohibition. Though not strictly forbidden, units designed for deployment, such as the contract supervision and cargo documentation detachments, are not normally aligned to nondeploying units. MTMC is working with the U.S. Army Training and Doctrine Command to clarify doctrine and change perceptions.

The line-up that MTMC seeks is critical to training, which is the next phase of the single seaport manager challenge. The wartime alignments established in operation plans decide which organizations are responsible for unit training. In the last year, MTMC has established itself as seaport manager in operation plans. CINC reluctance to relinquish control of forces operating in theater to TRANSCOM initially frustrated those efforts. Although the unified command plan specifically assigns TRANSCOM operational control of its components, theater CINCs have historically viewed that as intruding on their span of control. To further the single seaport manager concept, TRANSCOM agreed to sometimes place MTMC forces under the operational control of theater CINCs to perform single seaport management. That broke the impasse and enabled MTMC planners to convince CINCs to include seaport management forces, still aligned to MTMC, in their plans. MTMC can now focus on developing and implementing a comprehensive seaport management training program.

With regard to training, MTMC–Pacific personnel have again been pioneers. The management teams routinely manage seaports in exercises and support unit rotations throughout the Pacific at both developed and remote sites in Thailand, Australia, and Hawaii. MTMC included individuals from its aligned units to augment these teams by providing these individuals with valuable training at remote sites. The command will work in the future toward creating a standard training program, building on the experiences of the Pacific management teams.

Because the command management cell is part of a larger joint seaport operating force package, seaport personnel also need training beyond the MTMC-developed program. TRANSCOM asked for help in May 1995 from the Army Chief of Transportation to develop and implement a training program. Once generated, training should be hands-on and integrate joint forces, including active and Reserve components. It should exercise joint seaport operating force packages under different scenarios around the world. In addition, much of this training will occur under a joint deployment training center, a program under development by TRANSCOM to provide joint training for a range of deployment activities.

The road from seaport management in Desert Shield to the MTMC single seaport manager concept was long. If the United States executes another deployment like that to the Persian Gulf in 1990–91, seaport operations still may not be flawless. However, with defined responsibilities and joint doctrine accepted and implemented by theater CINCs and reinforced with trained and ready seaport management personnel, MTMC can support the geographic CINCs with a seamless fort-to-foxhole joint management team. JFQ

NOTES

[1] The author wishes to acknowledge the assistance of LTC William T. Brown, USA, Carolyn W. Brumbaugh, James K. Matthews, and Major Dana N. Willis, USAF, in preparing this article.

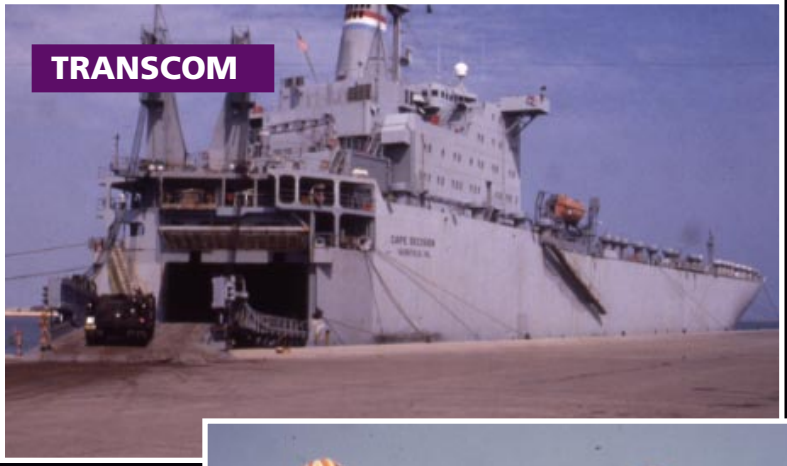
[2] Joint Pub 3-17, *JTTP for Theater Airlift Operations*, p. II-4.

[3] Kenneth Allard, *Somalia Operations: Lessons Learned* (Washington: National Defense University Press, 1995), p. 48.

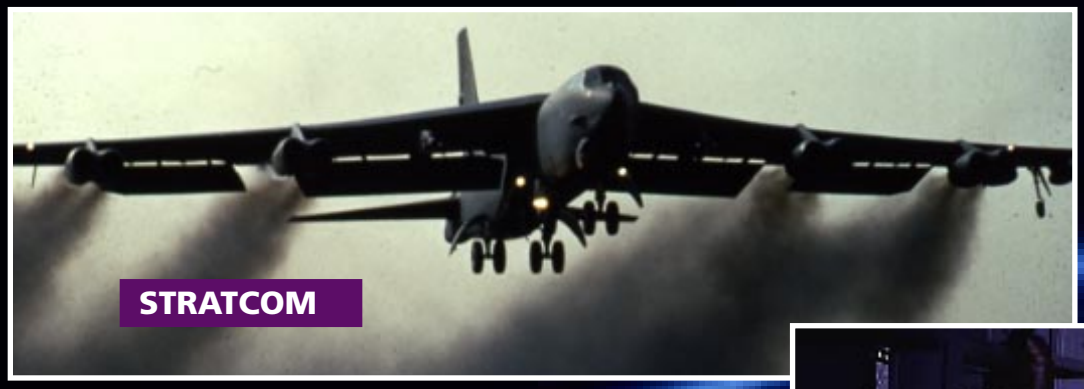
[4] Ibid., pp. 41–42.

THE UNIFIED COMMANDS

unified command—a command with broad continuing missions under a single commander and composed of forces from two or more military departments, and which is established by the President, through the Secretary of Defense with the advice and assistance of the Chairman of the Joint Chiefs of Staff.



Photos (clockwise, from top right): U.S. Strategic Command (STRATCOM)—B–52 taking off during Desert Storm (U.S. Air Force/Donald McMichael); U.S. Special Operations Command (SOCOM)—SEAL on board MH–53 in the Adriatic (U.S. Air Force/John E. Lasky); U.S. Pacific Command (PACOM)—Thai and U.S. Special Forces doing "fast rope" drill during Cobra Gold (U.S. Navy/Charles W. Alley); U.S. Space Command (SPACECOM)—Earth from Clementine deep space experiment (U.S. Air Force); U.S. Southern Command (SOUTHCOM)—underway replenishment with *USS Dahlgren* alongside Chilean vessel *Almirante Montt* in Talcahuano harbor (U.S. Navy/John Bivera); U.S. Central Command (CENTCOM)—marines ashore at Mogadishu airport during Restore Hope with *USS Rushmore* on horizon (U.S. Navy/Joseph Dorey); U.S. European Command (EUCOM)—U.S. and Danish forces combine during Tactical Weaponry '95 (U.S. Air Force/G.D. Robinson); U.S. Atlantic Command (ACOM)—AV–8 launching from *USS Nassau* during joint force training (U.S. Navy/Johnny Wilson); and U.S. Transportation Command (TRANSCOM)—vehicle rolling off Military Sealift Command ship *Cape Decision* in Arabian Gulf (U.S. Air Force/Conrad M. Evans).


STRATCOM

SOCOM

PACOM

SPACECOM

SOUTHCOM
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NASA

Defense support payload aboard space shuttle.

DOD

Space and Joint Space Doctrine

By HOWELL M. ESTES III

EDITOR'S *Note*

Recent experiences during Just Cause and Desert Shield/Desert Storm have demonstrated the need for joint space doctrine. When thoroughly integrated into joint operations, space assets will prove to be a significant force multiplier and also possess the potential for independent space application. This capability largely depends on understanding the uses of our space forces. Doctrine can provide both principles and a framework for comprehending and integrating space capabilities. This doctrine will be even more important in the future, as potential enemies notice our increasing reliance on space. Joint doctrine must address our use of space while denying it to an enemy.

General Howell M. Estes III, USAF, is commander in chief, U.S. Space Command.

When Americans think of space, they most likely envision the manned space program and the National Aeronautics and Space Administration (NASA). Some might imagine the commercial advantages of space, and a few might identify its military use. In fact, space is all of these things, but according to national space policy there are three distinct functions involved: civil, commercial, and military. NASA is responsible for civil functions (such as the shuttle and scientific projects), corporations seek

commercial applications (such as communications for cable and direct broadcast television), and U.S. Space Command (SPACECOM) is entrusted with most military applications.

Need for Doctrine

The use of space for national security purposes has come a long way since the first military satellites went into orbit. Such assets can no longer be viewed as extensions of terrestrial systems. Space is the fourth operating medium—a region where unique capabilities offer a tremendous force multiplier and potential for independent force applications. Joint forces must understand the many uses of space, have free access to it, make use of the full potential of space forces, and be capable of denying an enemy the warfighting advantages available through access to and use of it.

Recent conflicts have demonstrated the need for joint space doctrine. Experience gained in Just Cause and Desert Shield/Desert Storm as well as lesser contingencies such as Joint Endeavor influences joint doctrine development in this area. In these operations, space forces contributed to everything from mission planning to execution. Given emerging technologies, the impact of space forces will increase and become a major force multiplier when fully integrated into joint operations.

joint doctrine must consider protecting our capabilities in this medium

That integration requires a broader understanding of how space forces contribute to joint warfighting and the ways in which military space operations should be used. Doctrine is based on an analysis of the current mission, its history, the threat, the evolving state of technology, and the underlying military concepts of operations. Joint space doctrine will offer a common framework and basic principles from which to plan and operate and will fundamentally shape the way in which we regard and train for joint space operations. More importantly, it will allow joint commanders and their planners to understand space as an aggregate of capabilities rather than a single asset.

The United States has not confronted an enemy who can rival our space capabilities or deny us the ability to exploit them. However, we are experiencing a global proliferation and increasing sophistication of such capabilities. As we evaluate the contributions of space and incorporate their lessons into doctrine, potential enemies will take note of our increased reliance on space and realize the value of utilizing it themselves, but more importantly, will attempt to disrupt our use of it. Joint doctrine must consider protecting our capabilities in this medium and denying them to an enemy. We call this space control, akin to sea control and control of the air.

Command Responsibilities

With recognition of the growing military importance of space in the late 1970s, the need for a joint space force commander became apparent. SPACECOM was activated in September 1985, creating a single operational military organization to oversee and manage most DOD space forces. The missions of SPACECOM under the unified command plan fall into four areas. First, it supports the North American Aerospace Defense Command (NORAD) with missile warning and space surveillance data. Second, it advocates space requirements for CINCs. Third, it conducts planning for strategic ballistic missile defense (BMD) and, once a decision on deploying a national missile defense system is made, SPACECOM will operate assigned BMD forces. And fourth, the heart of what it does day to day is space operations.

The space operations mission has four parts: space control, space force application, space forces support, and space force enhancement. As mentioned, control enforces space superiority by ensuring our free access to space while denying it to an enemy. This is done through surveillance, protection, prevention, and negation. Force application applies force from or through space into the terrestrial media—land, sea, and air. Forces support launches military satellites into orbit and operates them, which is the enabling mission to other space missions. Finally, force enhancement provides space support to regional warfighters.

SPACECOM strives to provide assured support to the National Command Authorities, Chairman, combatant commands, and other agencies throughout the range of military operations. Normally, the commander in chief, U.S. Space Command (CINCSPACE), functions in a supporting role to terrestrial CINCs or joint force commanders (JFCs). However, in accordance with Joint Pub 0-2, *Unified Action Armed Forces,* he can be a supported or supporting CINC, depending on the nature of the mission. SPACECOM operates its forces through service components, with CINCSPACE retaining command of space forces which ensures the most effective use of global space assets.

Military Operations

SPACECOM forces function in a distinct area of operations to support military operations in theater. The role of military space operations can be understood by examining five points on the nature of modern warfare contained in Joint Pub 1 from a space perspective.

First, the environment that space forces face in support of U.S. national interests is more than global. It includes the "area" of space. The ability to project and sustain our military power worldwide is a basic requirement of the Armed Forces. The rapid access, presence, and capabilities space forces provide enhance our ability to do that effectively and efficiently.

Second, these capabilities result from technological advances. Space forces especially use new technologies to improve global command and control, navigation, environmental monitoring, surveillance and reconnaissance, and mapping, charting, and geodesy.

Third, the speed of communications and tempo of events, as well as the need to conduct operations inside an enemy decision cycle, require the

capability to rapidly monitor and respond to events worldwide. Space forces provide a continuous global presence to observe and quickly react on all levels of military operations.

Fourth, the contribution of space forces to joint operations depends on people—space and terrestrial warfighters. Supported commanders and their staffs must appreciate the capabilities and use of space force personnel who, in turn, must understand the needs of those whom they support. Lastly, commanders of space forces must make space accessible, understandable, and usable.

Fifth, space forces can decrease the fog of war to provide the warfighter a clearer picture of the battlespace—reducing uncertainty and friction. The goal of information superiority contained in *Joint Vision 2010* is just that. With space forces, we can rapidly observe, hear, understand, and exploit a battlespace environment anywhere in the world, even in remote locations, with little or no local support infrastructure. Such a flow of information from and through space has been crucial to modern warfare. It has allowed JFCs to gather ever more information and it is going to get even better. When this intelligence is coupled with ongoing advances in processing, commanders will operate with relative certainty, at increasing operational tempos, and at levels of effectiveness never before possible.

space forces serve numerous customers and not all are military

Unlike most military operations, space operations are continuous. Once our systems are in place they provide global support 24 hours a day. SPACECOM components function across the full spectrum of conflict—from peace to war. In crisis or conflict these systems, already fully operational, can quickly be retasked to specific joint operations. In other words, commanders can select those capabilities that best support their missions. This process is dynamic and varies with each situation. Moreover, it is tailored by warfighters for warfighters.

The supported terrestrial commanders must integrate space into joint operation or campaign plans by blending space support into offensive and defensive operations and planning for changing situations. In particular, they must employ ground-based equipment required to receive, process, and disseminate products from space forces and train personnel on these systems. For instance, space forces may furnish missile warning information from space-based surveillance systems, but supported commanders must receive it, integrate it with data from other warning and surveillance assets, and use it in theater missile defense operations.

Space forces serve numerous customers and not all are military—in fact, civil and commercial users are rapidly expanding. This could have a growing impact on military users of space systems and must be considered in planning joint operations. For example, the global positioning system (GPS) also supports both civil and commercial users, thereby restricting military capabilities. In the future, the United States plans to make an unaltered signal available to all users. This points out the importance of the military pursuit of navigation warfare to ensure use of the signal by the Armed Forces in a contingency while regionally denying its use to an enemy.

Space Support

Warning of ballistic missile attack has been a bedrock space mission since the early 1970s and has been achieved through defense support program (DSP) satellites. This program was built to warn of a strategic missile attack upon North America but now includes theater ballistic missile strikes. Scud attack warnings in Desert Storm were the first combat use of this expanded capability. Since then SPACECOM has improved the fidelity of DSP information. Today we have pretty much maximized this capability and are planning a successor, a space-based infrared system.

Satellite communications are almost transparent but essential to terrestrial forces. There are many areas of the world, especially oceans and remote locations, where such communications are the lifeline of military operations. They are critical where there is inadequate infrastructure. There are several military communication satellite systems, including the defense satellite communications system (DSCS) which provides a high volume global capability. We are modifying the remaining DSCS spacecraft and employment doctrine to provide more information to lower command levels. Because of expanding demands for support, we expect a blend of military, civil, commercial, and international systems to meet our future satellite communications needs. With such a fusion, our forces will need a focal point to ensure the availability of satellite communications. SPACECOM is working with the Joint Staff and others to achieve this goal.

Weather forecasting is another contribution. Data from satellites assist resource protection, operational timing, flight planning, ship routing, munitions selection, chemical attack dispersion predictions, radar and communication anomaly resolution, and targeting. To offer better weather support of our forces at lower costs, defense meteorological satellite program (DMSP) satellites are converging with National Oceanographic and Atmospheric Administration weather satellites.

Nontraditional uses of our forces are expanding worldwide even as overall military forces are drawn down and our permanent overseas presence is reduced. The role of space in helping to get the most out of our forces in these operations is growing. The most familiar example is GPS satellites providing worldwide precision navigation and geopositioning. The first major use of that system took place in Desert Storm when it proved to be a resounding success.

A final example of space support is intelligence from space-based systems. Whereas SPACECOM owns and operates GPS for navigation, DSP satellites for missile warning, DSCS military communications satellites, and DMSP satellites for weather, we do not own or

Lockheed

Northrop Grumman

Pathfinder launch vehicle, Vandenberg AFB.

operate any intelligence satellites. They belong to the National Reconnaissance Office (NRO) and serve varied uses—not just military. Intelligence satellites were originally focused far more on strategic needs. Recently, however, there has been a growing emphasis on support to military operations by these systems. Tactical exploitation of national capabilities organizations by the services has been vital to forging closer ties between NRO and military operations. SPACECOM and its component space support teams are engaged in helping warfighters to better understand and utilize NRO intelligence satellites as well as fielded SPACECOM capabilities. Members of the NRO operational support office are part of these space support teams at both joint and component levels. The NRO and SPACECOM are working to provide a single operational focus for all satellites that support military operations.

many traditional land, sea, and air missions will increasingly migrate to space

The Future

The medium of space will become even more important as new initiatives and technologies come to the fore. Control of it is becoming integral to battlespace dominance. The integration of space forces into theater and global warfighting must continue. Many traditional land, sea, and air missions will increasingly migrate to space. U.S. information dominance cannot be assumed in the future as potential enemies gain access to similar information and assets. Global partnerships among members of the civil, commercial, and military sectors will increase as all parties attempt to streamline infrastructure and cut costs. The task will be preserving core military space capabilities as we expand our ties to civil, commercial, and international systems.

A review of programmed and potential initiatives illustrates the increasing impact of space. In the decades ahead, SPACECOM will not only "support from space" but will "operate from space." The space and missile tracking system will provide ballistic missile warning with improved launch location determination and the possibility of boost phase intercept. Space-based radars, lasers, and possibly weapons will further enhance SPACECOM effectiveness. The global broadcast service will give warfighters the right data in the right place at the right time while advances in processing capabilities will help to create dominant battlespace awareness in future conflicts. Ballistic missile defense—theater or national—will be a huge space-intensive endeavor. In addition, the military space plane will, among other things, greatly reduce the time and cost of putting satellites in orbit, opening new opportunities for less expensive systems. These and other initiatives will offer robust capabilities to ensure that our national interests are protected.

Space forces have evolved dramatically in the relatively short time since the first satellites went into orbit. The number of nations and commercial firms which have or are developing space capabilities is growing. This makes access to information and application—much of which has military utility—commonplace. JFCs have come to rely on space assets not as a remote activity of specialists or the strategic community but as vital partners in conducting military operations.

The United States has enjoyed relative freedom in space and has not yet engaged an enemy that can duplicate or deny our space capabilities. We must ensure that this situation does not change in the future. Space is the fourth medium. Joint doctrine must bring the military facets of space into focus to maximize the potential of the Armed Forces. JFQ

B–1.

U.S. Air Force (Brett Snow)

C–4 missile.

U.S. Air Force

Strategic Forces for Deterrence

By EUGENE E. HABIGER

EDITOR'S *Note*

Nuclear weapons have proven effective at preventing conflicts. In the wake of the Cold War, however, the role of these weapons and the concept of deterrence are being reexamined. Today deterrence requires a full, diverse set of options which are flexible and effective against a range of threats. Moreover, they must be readily perceptible to a potential enemy. While deterrence may depend more on conventional forces than in the past, the Nation must maintain credible nuclear capabilities into the future. As the United States reduces the size of its nuclear arsenal, care must be taken to guarantee that our capabilities contribute to the credibility and viability of deterrence.

General Eugene E. Habiger, USAF, is commander in chief, U.S. Strategic Command.

The United States has encountered new challenges in its efforts to shape a more stable and secure world in recent years. These include building a safer relationship with an independent but nuclear armed Russia and dealing with the proliferation of weapons of mass destruction as well as regional threats to our national interests. In a radically changed, complex, and volatile world, it is necessary though difficult to define security interests, craft a military strategy, and develop doctrine to organize, equip, and employ our forces.

For U.S. Strategic Command (STRATCOM)—a post-Cold War command responsible for the Nation's

strategic nuclear deterrent—this challenge has special meaning. The establishment of STRATCOM in June 1992 consolidated command and control of our strategic nuclear forces under one CINC. The command has also been tasked to support the regional CINCs in nuclear planning and counterproliferation. The STRATCOM mission is basically the same as that of the other combatant commands—to deter military attack against the United States and its allies and, should that fail, to employ forces—although our assigned weapons certainly possess unique characteristics.

Joint doctrine is crucial in defining means—the kinds of forces the Nation requires—and how they should be employed to meet strategic ends. Now more than ever, the Armed Forces must be guided by a "unity of effort" as defined in joint doctrine. We need a clearer understanding of the contributions of all our forces—nuclear and non-nuclear, offensive and defensive—to this joint effort, both for deterrence and warfighting, in support of national rather than parochial interests. Doctrine contributes to this effort not only by adapting to change but by leading it.

Deterrence and Warfighting

Our national security strategy of engagement and enlargement has brought the capabilities of the military into a closer relationship with political and other instruments of national power. To former Secretary of Defense William Perry, this translated into three lines of defense—to prevent, deter, and defeat—which feature cooperative threat reduction, arms control, alliances, peace operations, and humanitarian assistance as complementary elements of defense strategy. Similarly, the Chairman has outlined a national military strategy with three elements: peacetime engagement, deterrence and conflict prevention, and fight and win. Both of these frameworks have established a role for the Armed Forces that is focused on proactive ways to keep the peace.

These ideas remind us that the refrain "to fight and win our Nation's wars" is not the first responsibility of our military. As *Joint Vision 2010* states, "the primary task of the Armed Forces will remain to deter conflict—but should deterrence fail, to fight and win our Nation's wars." This is not to suggest a contradiction between deterrence and warfighting; they complement each other but are not identical. Warfighting requires a capacity to wage war effectively, with options ranging across the conflict spectrum "commensurate with the scale or scope of enemy attacks and the nature of U.S. interests at stake."[1] Such a capability involves the integration of every element of military power—weapons, people, command and control, communications, intelligence, plans, operational concepts, logistics, leadership, training, and readiness. Deterrence, for its part, requires that this capacity to wage war—as well as the will to wage it—be credible.

nuclear weapons provide an essential complement to conventional forces

Deterrence is based on perception, so that a potential enemy will calculate that the likelihood of success is so uncertain and risks so excessive that there is no incentive to attack. If warfighting capabilities exist but are not apparent, or if vulnerabilities negate those capabilities at the outset of conflict, or if we appear unwilling to employ them, deterrence is more likely to fail. Thus effective deterrence requires a range of credible warfighting capabilities—suited to the circumstances, threat, and interests—with the clearly communicated determination to use them in the event of aggression. As experienced in countless cases, this requirement applies to both nuclear and nonnuclear forces.

If a conflict breaks out despite our best efforts to prevent it, deterrence does not cease to be a strategic objective. We seek to "control escalation and terminate the conflict on terms favorable to the United States and its allies."[2] Regardless of the nature of the difficulty, the United States seeks to deter an enemy from escalating the intensity or scope of any conflict and, once our objectives are met, to deter it from continuing hostilities at all. In the case of the Persian Gulf War, for example, President Bush told Saddam Hussein that the United States would not tolerate the use of chemical or biological weapons. And though never explicitly threatened, Iraq believed that the United States was prepared to use nuclear weapons if it did not heed America's warning. This demonstrates that deterrence is inherently strategic, aimed at directly influencing enemy decisions on using force even in the midst of conflict. Warfighting also must not be understood in only operational or tactical terms—vis-à-vis its effect on opposing forces in the battlespace—but in terms of its strategic effect on enemy leaders, where the ultimate decision is made on using force.

In considering military strategy and doctrine, planners legitimately emphasize conventional warfighting. For example, having recognized the contribution of nuclear weapons to deterrence, *JV 2010* argues that "we will largely draw upon our conventional warfighting capabilities . . . to deter, contain conflict, fight and win, or otherwise promote American interests and values." Such a position is understandable, especially given that developing, training, and sustaining the requisite conventional forces consumes the largest share of the defense budget. It also highlights a desire to reduce reliance on nuclear weapons. But the experience of the past few years confirms that nuclear weapons continue to provide an essential complement to conventional forces. Notwithstanding new technology, the strategic end is the same—to convince an enemy that the result of aggression against the United States or its interests is dangerous.

Nuclear Weapons

From the advent of the atomic age, it has been clear that nuclear weapons changed warfare. As Bernard Brodie recorded in 1946, "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose."[3] Yet nuclear weapons proved effective in preventing war. In

the first half of this century the world experienced two global conflicts. World War I resulted in an estimated nine million dead, twice the cumulative wartime fatalities of the previous 500 years. World War II took a toll of nearly 55 million dead. While the world has not seen the end of war, there have been no conflicts with anywhere near the scale of casualties of those two global contests. Any crisis that punctuated the Cold War could have been many times more devastating, but nuclear weapons appear to have had a restraining effect. As Sir Michael Quinlan recently noted:

The absence of war between advanced states is a key success. We must seek to perpetuate it. Weapons are instrumental and secondary; the basic aim is to avoid war. Better a world with nuclear weapons but no major war than one with major war but no nuclear weapons. . . .[4]

More than any other weapon in America's arsenal, nuclear arms have remained morally and politically contentious. In the view of the U.S. Government and the International Court of Justice there is no customary or conventional international law that prohibits nations from employing them in armed conflict.[5] Nonetheless, these weapons have represented a paradox since their inception. On the one hand, their deterrent value derives from their immensely destructive nature—the ability to kill more people in a few hours than perished during World War II. On the other hand, that very destructiveness decries their usability, placing into question whether a democratic society would resort to such weapons, especially in defense of others.

Recently the United States has demonstrated its conventional warfighting capability, most notably in the Persian Gulf. Nuclear deterrence, however, cannot depend upon such demonstrated capability—indeed, the premise of nuclear strategy is that victory loses much of its meaning. Yet despite their special character, considerations regarding their employment must conform to the laws of armed conflict, including military necessity, proportionality, and avoidance of collateral damage and unnecessary suffering.[6] Thus, regarding nuclear weapons as instruments of terror rather than purpose is unacceptable to the Nation; we cannot simply possess a small number of these weapons to threaten the destruction of population centers. We must preserve the capability to hold at risk a range of legitimate targets and the flexibility to employ forces consistent with the circumstances.

U.S. interests mandate a nuclear capability that offers diverse and flexible options

New Threats and Challenges

The nuclear genie did not escape from the proverbial bottle because of the Cold War, and the end of superpower confrontation did not put it back. Nuclear weapons certainly dominated the U.S.-Soviet relationship throughout the Cold War, and remain central to the U.S.-Russian strategic relationship. The DOD Nuclear Posture Review acknowledged the reduced role of nuclear weapons in U.S. security but emphasized that as long as they remain on the international scene, deterring attack on the United States and its allies must be our objective. Moreover, in successive national security strategy statements, Presidents have reaffirmed that the United States will retain a triad of strategic nuclear forces for deterrence.

During the Cold War, defense planners alternated between depending on nuclear weapons to compensate for more expensive conventional military assets and relying on them less to reduce risks. At the time we were conscious not just of strategic nuclear threats to the American homeland but the overwhelming conventional military power opposing the United States and its allies. Today that latter concern is virtually forgotten. In NATO, the revision of the strategy of flexible response reflected reduced reliance on nuclear weapons, even though the Alliance still declares that they "make a unique contribution in rendering the risks of any aggression incalculable and unacceptable."[7]

Since the Cold War ended, likely threats involve use of nuclear, biological, and chemical weapons against the United States, its forces, or its allies by regional powers, rogue states, and nonstate actors. Thus, joint doctrine asserts that "the fundamental purpose of U.S. nuclear forces is to deter the use of weapons of mass destruction, particularly nuclear weapons, and to serve as a hedge against the emergence of an overwhelming conventional threat."[8] This is not to say that the Nation would necessarily employ nuclear weapons in response to an attack. As in Desert Storm, declaratory policy on use remains intentionally ambiguous, neither prescribing nor proscribing it.

Current and projected threats to U.S. interests, therefore, mandate a nuclear capability that offers a diverse and flexible set of options rather than the large exchange scenarios that dominated Cold War nuclear planning.

Arms Control and Force Reductions

To meet the demands of this new world, the United States needs fewer nuclear weapons than during the Cold War. In fact, Washington and Moscow will reduce their strategic arsenals by some 50 percent under the START I Treaty which went into effect in December 1994, and the new force levels will be reduced by over 40 percent once Russia ratifies START II. Moreover, since the late 1980s the United States has unilaterally reduced its nonstrategic nuclear forces by roughly 90 percent. In addition, bombers and tankers have been off alert since September 1991, and ballistic missiles have been detargeted since May 1994.

We anticipate further reductions. Within the context of the Nuclear Nonproliferation Treaty (NPT), the United States—like the other parties—is committed:

. . . to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.[9]

But such reductions are not ends in themselves. The ultimate determinant of their utility is the extent to which they serve security and stability. Both NPT and recent appeals for the complete elimination of nuclear weapons acknowledge certain hurdles that must be negotiated before such steps can be taken, including political conflicts which motivate the acquisition of nuclear weapons, as well as questions of verification and various technical issues.

In conjunction with NPT, the United States has affirmed its intent to assist any non-nuclear weapons state that becomes a victim of nuclear aggression or intimidation. In addition, nuclear weapons underpin explicit extended deterrence commitments to alliances like NATO. Precipitous reductions in nuclear deterrent capabilities which undermine the credibility of such assurances may cause states that have foregone such weaponry to reconsider whether they need their own nuclear arms to guarantee security. Thus, as the United States draws down its nuclear forces to meet treaty obligations, the pace and form of the reductions—as well as the character of remaining forces—are more important than the numbers that dominate the headlines. We must ensure that our remaining forces are effective against the threats and challenges which characterize the post-Cold War world. It is the role of doctrine to outline how this might be done—and the responsibility of the defense establishment to turn that doctrine into real capability.

Credible Options

To preserve a credible, effective deterrent—with or without nuclear weapons—the Nation must maintain the perceived capability to serve a political purpose with military effect, with a range of credible options that can be controlled in their use and tailored to meet the objective. Ultimately, the President alone makes decisions on using nuclear weapons and thus requires the widest possible range of options and clear understanding of their political and military consequences. In doctrinal terms, forces and related command, control, communications, computers, and intelligence must be diverse, flexible, effective, survivable, enduring, and responsive.[10] But the simplicity of such needs can obscure the difficulty of sustaining requisite capabilities. And while the United States downsizes its nuclear infrastructure, certain factors will be critical to the viability of the deterrent.

Strategic Forces

Contrary to conventional wisdom, strategic arms control agreements over the past quarter century did not actually limit nuclear weapons; rather, they eventually restricted delivery vehicles, namely, the triad of land-based intercontinental ballistic missile (ICBM) launchers, ballistic missile submarines (SSBNs), and bombers. Each of these weapons platforms contributes

Anyone who considers using a weapon of mass destruction against the United States or its allies must first consider the consequences. We would not specify in advance what our response would be, but it would be both overwhelming and devastating.

—William J. Perry

Ballistic missile submarine.

U.S. Air Force

Test launching Minuteman III.

U.S. Air Force

B–2 taking off from Whiteman Air Force Base.

DOD (Helene Stikkel)

unique benefits to overall deterrent posture, but it may become more difficult in time to sustain each leg of the triad as forces are drawn down further.

Strategic bombers provide the greatest flexibility. B–52s with cruise missiles have a range of capabilities against both strategic and theater targets, thus offering critical options to the National Command Authorities (NCA). As B–2s replace B–1s in the nuclear force, they will furnish unique capabilities to various contingencies. Bombers are capable of nuclear and conventional operations and accordingly pose special issues. They are not on alert and may be tasked to support regional CINCs in conventional operations in crises. Placing them on nuclear alert may thus necessitate difficult choices between strategic deterrence and operational requirements of CINCs. Moreover, the transition to alert status must be managed carefully to ensure that the action serves deterrence rather than being viewed as provocative.

Ballistic missile submarines remain the most potent weapon system in the force, with each Trident SSBN carrying 24 ballistic missiles, each armed with up to eight warheads. The last of 18 Tridents are now being readied for operational deployment. When START II goes into effect, the Navy will retain 14 Tridents—based on both coasts—able to respond to contingencies anywhere in the world. The most significant attribute of the submarine leg of the triad is its survivability. With eight boats usually at sea, we maintain a powerful assured retaliatory capability. In port, however, a ballistic missile sub is potentially one of the most destabilizing weapons since it is an extremely lucrative target which makes it crucial to preserve a force large enough for two-ocean operations.

Intercontinental ballistic missiles remain on full alert in some 550 silos in the United States. Fifty silos have the Peacekeeper with up to ten warheads that will be eliminated under START II. The balance have the Minuteman III, each with up to three warheads that will be reduced to single warheads under START II. These weapons remain the most responsive in the force. To some, ICBMs are a vestige of the Cold War, the least survivable leg of the triad. They must be on alert to pose a credible threat lest they be seen as certain kills in a preemptive strike. At the same time, they contribute to the stability of the deterrent by forcing an enemy to take them into account when contemplating a strike. Without ICBMs, the Nation has two SSBN bases, three strategic bomber bases, and only a handful of relatively soft command and control and other support nodes. Even though we would still have a potent retaliatory capability at sea, the prospect of destroying the bulk of our nuclear infrastructure with a handful of weapons could be too tempting even for a state with a few dozen weapons, never mind Russia's arsenal.

doctrine prescribes a combination of attributes represented by the triad

In short, doctrine prescribes that forces have a combination of attributes represented by the triad. Moreover, as forces are drawn down we must maintain a sufficiently diverse mix as a hedge against the unforeseen loss of a particular platform, weapon, or capability, especially given the lack of nuclear testing and new weapons under development. The ability to preserve and sustain a triad as forces are reduced is increasingly significant for a stable deterrent, independent of warfighting implications of particular weapons ceilings that might be agreed to in arms control negotiations.

Information

Though weapons themselves typically draw the most attention, information is increasingly the glue that binds forces and enables them to be employed consistent with their strategic purpose. *JV 2010* properly highlights the role of ensuring information superiority. C^2 became C^3 and then C^4 reflecting greater interconnectivity among command, control, communications, and computers. Now we need to integrate information about our own forces and capabilities with information on enemy forces from intelligence, surveillance, and reconnaissance (ISR). The integration of C^4 and ISR (C^4ISR) systems ultimately is key to ensuring that CINCs are tied together and to NCA with free-flowing data on threats, targets, forces, and decisions. This effort is focused on offensive capabilities; ultimately, we must integrate defensive capabilities to ensure unity of effort.

An integrated and enduring C^4ISR architecture is increasingly important to STRATCOM, which has always had responsibility for providing NCA with various options regarding the use of nuclear weapons and advice on the consequences. Now with the task of supporting theater CINCs in a crisis,

we will likely find ourselves in a teleconference with regional CINCs, other supporting CINCs, and NCA to consider a full range of options involving targets, weapons packages, and the impact of each. Critical to this interchange is the ability to plan based on dynamic intelligence and force data and the capacity to share information in a timely manner with supported decisionmakers.

Such connectivity must also be sustainable—and thus survivable—throughout a conflict to ensure that force is used consistent with military necessity. The most critical targets, for example, may be relocatable, requiring timely information on their location and disposition. Forces that are incapable of being controlled and employed purposefully over time are relatively inept instruments of deterrence or warfighting. In this respect, advances in protecting, exploiting, and employing information will be increasingly important.

Readiness

A growing challenge is ensuring that strategic forces remain able to do their job if needed. Strategic exercises such as Global Guardian have proven their worth—by offering opportunities to measure strategic force readiness and providing senior decisionmakers experience in the complex issues of crisis management and strategic force employment. Strategic force readiness continues to be excellent, with alert forces maintaining necessary alert rates and dual-capable forces balancing competing demands on conventional and nuclear missions. The greater challenge is in long term readiness—whether the weapons platforms will be sustainable over the next two decades or more, and whether the nuclear weapons themselves will continue to be safe and reliable.

The United States has no new strategic weapons systems under development. We expect our existing missile, submarine, and aircraft systems to remain viable for another quarter century, provided that we continue to sustain and modernize them. This also requires careful attention to the industrial base to ensure that our expertise and capacity to sustain these systems and to develop follow-on programs is not lost. The next generation of strategic systems need not look anything like our current systems, but within the next decade we must decide on the form they will take and commit the necessary resources.

Nor does the United States have new nuclear weapons under development. As a signatory of the Comprehensive Test Ban Treaty (CTBT), we face additional challenges in making sure that the nuclear weapons stockpile remains safe and reliable over the long term without nuclear testing. In announcing a "zero yield" test ban, the President declared that "the safety and reliability of the nuclear weapons stockpile is a supreme national interest," indicating that the United States reserves the right to withdraw from CTBT if a nuclear test becomes necessary to restore confidence in the stockpile.[11] Withdrawal from CTBT would constitute a major political step. Thus it is all the more imperative to invest in a science-based stockpile stewardship program and associated infrastructure and capabilities to ensure continuing safety and reliability. STRATCOM advises the Secretary of Defense annually on confidence in the stockpile. The issues involved are complex but bear directly on the readiness and viability of our deterrent posture.

The Chairman has often referred to STRATCOM as "America's ultimate insurance policy." It has special responsibilities with respect to nuclear weapons, such as the non-strategic stockpile which would be deployed on platforms not under STRATCOM operational control. Nonetheless, nuclear weapons are means rather than ends of policy. Fundamentally, the Nation needs a strategic military capability regardless of technology—a capability to directly affect enemy decisionmakers that goes beyond destroying opposing forces. Rather, it is the ability to cause an enemy to choose peace over war, restraint over escalation, and termination of conflict over continuation.

Nuclear weapons will be an indispensable part of that capability for the foreseeable future. Yet amid the swirling debate over their relevance, or the maximum number of deployable strategic weapons according to the next arms control treaty, it is important to recall that strategic capability requires more than weaponry. Joint doctrine does frame the attributes of nuclear forces—such as survivable and sustainable platforms, responsive planning and control systems, integrated C^{4}ISR capabilities, and readiness. Each is fundamental to our total capability, and each is all the more significant as force levels are reduced. Together they underpin a deterrent strategy designed to ensure that conflicts do not turn excessively violent and destructive. As the Nation again conducts a systematic review of defense investment priorities, we should not ignore this reality. JFQ

NOTES

[1] Joint Pub 3-12, *Doctrine for Joint Nuclear Operations*, pp. I-2 and II-1.

[2] Ibid., p. II-4.

[3] Bernard Brodie, editor, *The Absolute Weapon: Atomic Power and World Order* (New York: Harcourt, Brace, 1946), p. 76.

[4] Michael Quinlan, "The Future of Nuclear Weapons in World Affairs," *The Atlantic Council of the United States Bulletin*, vol. 7, no. 9 (November 20, 1996), p. 2.

[5] Joint Pub 3-12, p. II-1. For a summary of its findings, see International Court of Justice, Year 1996, *Legality of the Threat or Use of Nuclear Weapons*, July 8, 1996, general list no. 95, pp. 35–36.

[6] Joint Pub 3-12.1, *Doctrine for Joint Theater Nuclear Operations*, p. I-1. See also CJCSI 5810.01 (August 12, 1996).

[7] North Atlantic Treaty Organization, *The Alliance's Strategic Concept: Statement Agreed by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Rome, November 7–8, 1991* (Brussels: NATO Office of Information and Press, 1991), p. 10.

[8] Joint Pub 3-12, p. I-1.

[9] U.S. Arms Control and Disarmament Agency, *Arms Control and Disarmament Agreements: Texts and Histories of the Negotiations,* in article VI, Nuclear Non-Proliferation Treaty, 1968 (Washington: Government Printing Office, 1990), p. 110.

[10] See Joint Pub 3-12, pp. II-2-4.

[11] "Statement by the President on the Comprehensive Test Ban Treaty" (Washington: The White House, August 11, 1995).

Medical armored personnel carrier, Saudi Arabia.

U.S. Army

Correlating Medical Forces Forward

By J. H. BINFORD PEAY III

EDITOR'S *Note*

CENTCOM confronts medical support challenges unlike those found in other regions. Deployed medical forces must be able to handle a range of military operations in the most remote and austere region of the world. This medical support is further challenged by downsizing. To get more out of finite resources, the command is melding medical services into a coherent joint system to ensure a clear division of labor and greater unity of effort. Moreover, it is improving connectivity among medical forces in theater and those within CONUS using innovative means such as telemedicine. CENTCOM experience with joint medical services is an exemplar for other kinds of support.

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The area of responsibility (AOR) assigned to U.S. Central Command (CENTCOM) encompasses 20 nations from the Horn of Africa to the Middle East, including the Red Sea, Persian Gulf, and western half of the Indian Ocean. The theater strategy rests on forward military presence, projection of military power, combined exercises, security assistance, and readiness to fight. It demands a carefully cultivated relationship with our allies to deter conflict and maintain stability. The CENTCOM surgeon's office has a staff of nine active duty personnel and five Reservists from the Army, Navy, and Air Force, with a mission to plan and direct medical support for the command's operations.[1]

With reductions in medical personnel and fewer assets forward based overseas, the ability of medical assets to deploy in a prompt, organized, and flexible manner will become more critical to CENTCOM capabilities. Readiness to support the mobilization, deployment, and engagement of U.S. forces must remain a high priority in the wake of terrorist actions, pre-hostilities, and humanitarian operations. Deployed medical forces must be prepared

Medical civic action in Mogadishu, Somalia.

U.S. Navy (Terry Mitchell)

UH–1 being winched into C–5 Galaxy for Vigilant Warrior.

U.S. Air Force (Marlene Barry)

for military operations that range from humanitarian missions to force protection to high-intensity war. Only by correlating medical forces forward can we provide optimal day-to-day support, supply a foundation for early support in contingency deployments, and accomplish the mission jointly.

Orchestrating land, sea, and air medical operations is demanding and requires joint medical expertise to integrate health service support (HSS). Indeed, real growth in military medicine today is in the area of joint operations. Through the process of correlating medical forces forward, the command surgeon's office has adopted jointness as a support platform. This article considers the provision of flexible, integrated health service support during peacetime, operational deployment, and execution phases and the results of that support on effective joint medical activities. Primary areas covered include medical planning; command, control, communications, and computers (C^4); aeromedical evacuation; medical logistics; host nation support; environmental concerns; preventive medicine; and humanitarian civic assistance programs within the AOR.

real growth in military medicine today is in the area of joint operations

Concept of Operations

The HSS concept of operations aims to establish conditions to deploy and sustain a healthy and fit force. It requires a forward and responsive medical surveillance system to maintain health and combat effectiveness and to prevent casualties. HSS C^4 is melded into a joint system that supports HSS collaborative planning, situational awareness, and decisionmaking. When casualties occur the battlefield will be cleared. Patients will be stabilized forward with light surgical teams, then moved rearward, maintaining en route care and accountability. Hospital capability within the AOR, although austere, will provide stabilization and limited in-theater treatment to prepare patients who cannot be immediately returned to duty for evacuation rearward. Patients requiring treatment beyond the capabilities of HSS units will be evacuated to military hospitals in the communication zone or outside the AOR (including U.S. facilities in Europe). The CENTCOM staff, through component command staffs—Army Forces Central Command (ARCENT), Naval Forces Central Command (NAVCENT), Marine Forces Central Command (MARCENT), Central Command Air Forces (CENTAF), and Special Operations Command Central (SOCCENT)—will manage and operate field hospitals, preventive medicine programs, aeromedical evacuations, automated medical information, and related activities to serve as a force multiplier for combatant commanders.

Joint Medical Planning

Since the AOR presents unique hardships, medical planning must take into consideration long lines of communication (LOCs) with limited lift, short warning time, lean combat and combat support forces, multiple missions from routine medical support to deployed forces to humanitarian to contingency operations, and health threats and environmental stressors.

Timely and effective planning and coordination are essential to the proper HSS mix within the theater. Subsequent to reports published in 1984, which indicated that no joint comprehensive plan for service assets existed, deliberate CENTCOM planning procedures are now accomplished in prescribed cycles that complement other DOD planning cycles and accord with the formal joint strategic planning system. HSS may be a service responsibility, but it must be carried out in keeping with joint doctrine.

Military Operations Value Model

Facility	Beds	Short/Tons	Lift Equivalents (C–17 / RORO / flat beds)	Acre(s) (< 2% grade)	Fuel (gallons/day)	Water (gallons/day)
Combat Support Hospital	296	933	21 / .176 / 138	30	12,000	26,000
Field Hospital	504	687	16 / .125 / 118	35	11,000	11,000
General Hospital	475	931	21 / .168 / 168	40	18,000	36,000
Fleet Hospital	500	4,054	88 / .5 / 836	28	11,000	24,000
Ship Hospital	1,000	NA	NA	NA	NA	NA
Contingency Hospital	500	453	NA	40	42,000	22,000
Air Transportable Hospital	50	127	5 / .018 / 22	1	0.7	6,000

Effective C4

Reductions in medical personnel and funding make effective C4 paramount. With sea LOCs of 12,000 nautical miles, air LOCs of nearly 8,000 miles, and a headquarters halfway around the world, a responsive C4 system is critical to providing seamless medical support. Only given such a system can the command surgeon tie all the resources together in a changing environment.

C4 is being emphasized as a result of the recent decision to increase force protection in the AOR. This determination has led commanders in Saudi Arabia to relocate troops from urban areas to a bare-base rural environment. This shift has enhanced communications capabilities of medical assets, thereby increasing the ability to integrate medical care forward in the region. Connectivity of systems, initially minimal, is constantly evolving. When completed, the process will be reliable and feature short- and long-range communications with satellite links and secure communications. The theater HSS information management system will be activated when this is available.

This system furnishes timely and accurate data on blood management, patient tracking and movement, and medical logistics. Careful integration into the global combat support system will offset increasing bandwidth requirements. This will involve infrastructure upgrades and combat support applications integrated within a common operating environment and producing a shared data atmosphere to create combat support information interoperability.

An emerging telemedicine subsystem to be deployed in a hub/spoke mode is also currently being assessed. A hub sited at Prince Sultan air base will be the main operating post for medical support and will electronically connect outlying units (spokes) throughout the region. This system will link ARCENT, NAVCENT, and CENTAF medical assets and capabilities. A referral center in Europe or CONUS will be used for medical issues that exceed the capacity of the air base. As the communications network matures, smaller elements (for example, squadron medical elements) will be connected to larger ones (such as an air transportable hospital) and to a referral center if needed. As connectivity increases, capabilities such as digital radiology, consultation services, electronic mail, composite health care, records, and continuing education will be provided across the region. The system operates on an extremely wide electronic band making it difficult to use in immature, bare-base operations with a developing communications network. Initially, capabilities such as the international maritime satellite (INMARSAT) can furnish a "work around" solution until theater communication systems are stood up.

the Gulf War proved that the military echelons of care system works

Problems occur when data is transmitted in the clear. Medical operators must be cognizant of both operations and communications security. While medical information may not be classified, it can be an operations security indicator in the context of military operations. INMARSAT links can and should be encrypted, but as bandwidth increases encryption equipment also changes.

Aeromedical Evacuation

Timely patient evacuation plays an important role in the treatment sequence from front to rear. The Gulf War proved that the military echelons of care system works.[2] A careful review shows that the services can work together to make the system successful. Within the combat zone and echelons I through III, patient evacuation is usually the responsibility of component commands. Patients are moved by surface (land or water), rotary wing aircraft, or tactical aeromedical aircraft.

The Theater Patient Movement Requirement Center is responsible for coordinating combat zone patient evacuation. Within the CENTCOM AOR, patient regulating is accomplished at theater level. Tactical aeromedical evacuation from the combat zone (echelon III) to communication zone (echelon IV) is normally the

responsibility of the supporting Air Force component; in CENTCOM, this falls to CENTAF. Aircraft for patient evacuation are thus allocated at CENTAF level rather than by the office of the command surgeon. Aeromedical evacuation crews are controlled by Air Mobility Command while evacuation from the theater is the responsibility of U.S. Transportation Command, which establishes, operates, trains, and maintains common user aeromedical evacuation worldwide. Close coordination among the airlift commander, CENTAF surgeon, and CENTCOM command surgeon facilitates seamless patient evacuation.

Supplies and Equipment

Medical logistics support for CENTCOM has changed dramatically over the last few years. Maintenance and sustainment of prepositioned assets have become a unique challenge owing to more complex systems, a harsh environment, and extreme distances from supply sources. The Army is designated as single integrated medical logistics manager (SIMLM) for joint resupply. This calls for the supply of all class VIII medical support to the AOR at D+60 under contingency operations wartime support. Services provide class VIII support to their own units until SIMLM is initiated.

Higher echelon medical facilities require significant lift and sustainment. With this in mind, we preposition war reserve stocks in the AOR to reduce lift requirements and expedite force closure. CENTCOM prepositioned stocks consist of the following assets:

- *Army*—combat support hospital (296 beds), field hospital (500 beds), medical resupply sets (division level, echelons above corps, trauma, patient decontamination, and sick call), and medical equipment sets (treatment)
- *Navy*—fleet hospital (500 beds)
- *Air Force*—contingency hospital (250 beds), aeromedical staging facilities (100 beds), blood trans-shipment centers, and air transportable hospitals (50 beds).

Several joint initiatives undertaken for class VIII power projection enhance synchronization and integration of medical logistics resources such as:

- *Flexible force structure*—tailoring medical facilities with modular designs to directly meet mission requirements
- *Integrated medical logistics systems*—a single logistics automated information system for all DOD medical treatment facilities
- *Shift from CONUS depots to prime vendor for resupply*—fewer pharmaceutical items stocked by the defense agency causing logistics to rely more on manufacturers and vendors
- *Medical express commercial air delivery to the supporting theater*—ensures more frequent deliveries, less consolidation of stocks, throughput delivery, and reduced ordering and shipping time
- *Total distribution initiatives*—automated systems now being developed to provide total asset and in-transit visibility.

CENTCOM, supported by the Armed Services Blood Program Office, collects, stores, and distributes blood products in required types and amounts ready for use within the AOR.

Host Nation Support

Medical support of forward deployed forces can present other challenges. The nature of force projection operations implies that few forces are available in theater during times of relative stability. Naturally, the size and capability of the support structure decreases proportionately with decreases in the overall force presence. This is true of all aspects of combat service support but especially health service. There are no fixed U.S. medical facilities within the CENTCOM region. The highest standard of medical care must be available wherever forces are deployed. Commanders, however, cannot accept a force package comprised predominantly of medical personnel.

fighting strength can be conserved only by maintaining the health of soldiers, sailors, marines, and airmen

Joint doctrine provides one solution to this dilemma by using host nation health services when they are available and meet U.S. standards. The advantages include avoiding duplication of effort, decreasing costs and the American military footprint, and increasing responsiveness, which is the first principle of logistics support. At the same time, the United States must also maintain timely and complete patient accountability and visibility for the care and disposition of patients admitted to host nation facilities.

Host nation support takes planning. An aggressive and thorough medical intelligence effort is needed to identify facilities that can handle U.S. casualties and possess requisite standards of care. Finally, coordination must be made at all levels to ensure smooth integration of medical support (by both U.S. and host nation systems and personnel). Face-to-face interaction with allied health care practitioners engenders good rapport and is critical to ensuring that our forces receive the best care possible in host nation facilities.

Environmental Aspects

Each country and culture is unique. Language differences, environmental stressors, exotic diseases, dietary differences, and parasitic illnesses challenge servicemembers. The CENTCOM AOR includes countries where all these factors are present. The paramount health service function is preventive medicine. Personnel must deploy in good health and also be kept in that condition. The ill or injured are frequently lost to the command. Fighting strength can be conserved only by maintaining the health of soldiers, sailors, marines, and airmen.

Historically, the most frequent causes of casualties are disease and non-battle injuries. Recognizing health threats unique to a particular setting and prevention or early intervention are significant factors in maintaining the force. Many diseases endemic to the AOR are rarely seen by health care providers in the United States. Malaria, filariasis, and schistosomiasis are only some of the multitude of ailments that can affect an operation's outcome. Americans may feel apprehensive or insecure when initially encountering such health threats. Training and preparation can lessen the impact on the newly arrived servicemember.

Treating patient on board medevac flight.

DOD

Desert Shield/Desert Storm revealed the importance of a previously neglected dimension of preventive medicine. "Gulf War illness" has created an acute interest in monitoring environmental or occupational exposures to which troops are subjected. This concern has been generalized to all deployments in each theater but is of particular interest to CENTCOM, which has responded by fielding preventive medicine specialists within the AOR to sample air, water, soil, food, radiation, and other exposures and evaluate both the pre- and the post-deployment health status of personnel. The problem definition and assessment team for Vigilant Warrior and theater medical surveillance team for Desert Focus were successful in this aspect of preventive medicine.

Much of the AOR is desert and many regional cultures differ radically from our own. These factors combine with generational stressors to produce a demanding environment for deployed forces. Combat stress control thus becomes critical. CENTCOM views this function as integral to the overall preventive medicine effort.

Humanitarian Civic Assistance

Medical roles may transcend the functions of health service support. Humanitarian civic assistance missions are vital to the process of turning the CINC's vision of the AOR into reality. They provide clinical health care to indigenous personnel in remote or medically underserved areas. The impact of such missions goes far beyond the health improvement of individuals actually treated. They allow the host government to demonstrate a commitment to improving life for its citizens. Moreover, they show that U.S. support to allies goes beyond just military help. They improve relationships with political leaders, armed forces, and local residents. Our medical personnel serve as ambassadors of American goodwill as well as clinical health care providers.

This goodwill role has broader implications. Military medical teams are often welcomed by nations who would not accept other forms of U.S. assistance. This was dramatically demonstrated in the opening of Eastern Europe after the fall of the Soviet Union, but the same principle applies in other regions. Indeed, the universality of medicine can transcend politics and even culture.

Our Armed Forces expect and deserve the best medical care regardless of where they are serving around the world. Medical personnel must be properly organized and deployed to meet the requirements of service doctrine and CENTCOM operational needs. Planning and procedures for employing a joint medical force are a function of theater environment, trained medical assets, health status of deployed units, and national interests. The system must be fully supported and integrated by component commands. Those who plan or support such operations should expect joint medical services to pose unique demands; however, the results will greatly outweigh any inconvenience in learning to work jointly. An effective joint medical plan can be best sustained by frequent, closely coordinated training with a dedicated effort to capture and reinvest lessons learned.

Clearly, the ability to optimally care for servicemembers depends upon multiple factors. The challenge in this period of budget constraints, personnel reductions, and a rigorous review of service roles and missions requires understanding our capabilities to "correlate medical forces forward" within the CENTCOM area of responsibility in support of an immediate crisis. Only stringent, deliberate medical planning will prepare us to fight as a joint team to support near-term contingencies and the seamless transition to war. **JFQ**

NOTES

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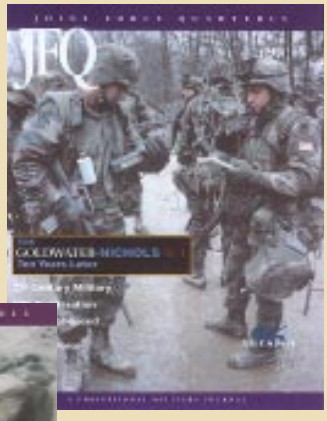
[2] "Medicine in the Gulf War," *U.S. Medicine,* vol. 27, nos. 15 and 16 (1991), p. 58.

Look for JFQ on the Joint Doctrine Web Site

http://www.dtic.mil/doctrine



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Keeping the Strategic Flame

By CARL H. BUILDER

U.S. Air Force Historical Center

B–17s on daylight raid over Germany.

Strategic thinking by the American military appears to have gone into hiding. Planning on the tactical and operational levels flourishes, but the strategic level is largely discussed in historical terms rather than as current art. Three decades ago, strategic thought burnt bright in the sanctuary of the national security temple. And for three decades prior to that—back to the 1930s—strategic theorizing dominated military debates in this country.

What happened? We cannot blame the demise of the Soviet Union since the strategic flame began to dim during the 1960s, a quarter century before most people believe the Cold War ended. It cannot be a decline in the defense budget, for we spend about the same amount in real terms today as at the height of strategic thinking in 1955.[1] Some may blame the Vietnam War when the military every bit as much as our civilian leadership seemed to lose its strategic compass. But the cause may lie deeper in military institutions. And even if it should be found, that may not motivate a revival of strategic thinking, for few lament its absence today.

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I would like to pursue three sets of questions about this paucity of strategic thinking:

- What is strategic thinking? How can it be distinguished from other kinds of military thought?
- What happened to strategic thinking? What caused its flame to wax and now wane?
- Why should we mourn the absence of strategic thinking today? What will it take to rekindle the flame?

I will argue that the strategic flame must be rekindled and kept alive. It has gone out twice before in this century to the Nation's detriment.

The Strategic Idea

The familiar terms *strategic* and *tactical*—which act as bookends on either side of the term *operational*—have accumulated lots of baggage in this century, and some of it must be jettisoned at the outset. The best way to do that is to start over. General Glenn Kent, the legendary Air Force analyst, sometimes admonished those who were about to brief him that they could define terms in any way they wished, but he would hold them strictly to their definitions. To avoid confusion, he urged briefers to use simple dictionary definitions. For the terms *strategic* and *tactical*, the ordinary dictionary definitions are close enough and strip away some of the baggage that encumbers them in military usage. But to sharpen the differences, a distinction should be made between strategic and tactical as separate kinds of endeavors (see figure 1). Note that these differences between strategic and tactical do not refer to types of weapons (nuclear or conventional), their range (intercontinental or theater), or the ways in which military power is applied (force, logistical, or surveillance).

***Joint Vision 2010* is a current illustration of thinking tactically**

Figure 1. Redefining Two Familiar Terms

Term	Strategic	Tactical
Objective	Going to the heart of the matter	Dealing with the matter at hand
	Going for the jugular	Playing the hand dealt
Focus on	Ends	Means
Nature	Transformatory	Engaging
Style	Game-changing	Game-playing
In the game of chess	Check and mate moves	Opening and castling moves
In Vietnam	Why we went there: Stopping the fall of southeast Asian dominoes	What we ended up doing: Trying to defeat an opposing military force

These distinctions beg for some comparison with the term *operational*, which lies between strategic and tactical. By contrast with the other two, the operational enterprise has as its objective *providing the means*—getting the right things in the right amount to the right place at the right time. This operational quality of the American military has long been the envy of the world. Repeatedly during this century it has moved large land, naval, and air forces, set them up, and made them fully functional halfway around the globe. It required more than logistics or support. It meant knowing which units to send where and when in order to create complex military forces that could fight as well as defend and support themselves—precisely as they were organized, trained, and equipped to do—from the first to the last forces sent.

If the operational thinking of our military is secure and without peer, and if tactical thinking has come to the fore, strategic thought has been all but abandoned. The difficulty lies in seeing the strategic side of national security increasingly as the province of politicians and diplomats while the operational and tactical sides belong to the military, free from civilian meddling (for some evidence of this development, consider the examples outlined in figure 2).

The current demand by the military for well-defined objectives is eloquent evidence of how far our thinking has drifted toward the tactical domain. The insistence on operationally planning based on enemy capabilities, while tactically prudent, is the antithesis of strategic thinking, which should concentrate on enemy vulnerabilities. Although defeating enemy forces may sometimes be necessary to achieve our objectives, it is not always the Nation's or the military's best option.

Joint Vision 2010 is a current illustration of thinking tactically. It is largely about engaging an enemy with joint forces in the future—without evident purpose beyond fighting and winning.[2] It could instead have been about the different ways military power, through joint capabilities, might be brought to bear on the future spectrum of national interests. The military planning posture that came out of the Bottom-Up Review at the start of the first Clinton administration is a contemporary example of operational thinking. It explained (or argued) what kinds of forces in what amounts are needed where and when for two nearly simultaneous major regional contingencies. It is difficult to find current instances of strategic thinking from within the American military.[3]

The strategic flame is a metaphor for the grand idea that military power can sometimes be brought to bear most effectively and efficiently when it is applied directly toward a nation's highest purposes without first defeating defending

Figure 2. Examples of Strategic and Tactical Thinking

Strategic	Tactical
What are our national interests and objectives?	What is the military objective?
What are an enemy's *vulnerabilities?*	What are an enemy's *military capabilities?*
What will it take to achieve national objectives?	What will it take to defeat an enemy's military?
How can we most quickly go to the heart of the issue?	How should we best engage an enemy's military?

enemy forces. It is an enduring idea latent in the age-old precept of seizing the enemy capital, but one which was often frustrated by the interposition of defending forces. So long as military forces were confined to the surface of the earth and limited in mobility, as was the case prior to the 20th century, strategic thinking was mostly positional—the occupation of capitals, straits, ports, etc. Seizing or occupying such critical points was a strategic objective, but access could be denied or delayed by defending enemy forces that typically had to be defeated before any objectives were achieved. Thus, winning a war became the *sine qua non* for pursuing strategic aims. Little wonder that combat was seen as a noble contest among professional warriors over a prize, which was a disarmed or vulnerable opponent finally opened to the strategic designs of the winning state, which is pure Clausewitz.

The technological achievement of flight through the air and then in space provided the first plausible opportunity to test the existing barriers to strategic objectives. Strategic thinking became militarily actionable: national objectives could be achieved directly, without first defeating enemy forces. Airmen were the earliest to see, elaborate, and promote this idea. What made airplanes distinctive from surface forces was that access to strategic objectives could be sudden—a matter of hours or minutes with little or no warning—from any direction and to any place. As with surface forces, the interposition of defenses was still conceivable but not as certain. The agility and rapidly increasing speed of aircraft made the kinematics of defenses appear much less advantageous. The advent of ballistic missiles and space technologies in mid-century made defenses against strategic actions even more remote.

The strategic thinking made actionable by planes and then missiles was controversial from the outset. It first appealed mostly to aviation-minded people such as Smuts, Douhet, Trenchard, and Mitchell; but aviators such as Chennault and Moffett were skeptical of expansive claims by air strategists. World War II demonstrated these arguments in the European and Pacific theaters.

The Idea in Practice

Over Europe in the 1940s, British and American airmen played out strategic bombardment theories with results that ranged from failure at worst to ambiguity at best. "Bomber" Harris and "Hap" Arnold structured forces and mounted bombing campaigns around their respective ideas that the aircraft would always get through and the industrial base of the enemy war machine could be destroyed by precision daylight bombardment from self-defended bomber formations. Those ideas proved disastrous to aviators who tested them over Germany. Their bomber forces were too small to overwhelm enemy defenses; and they found themselves in an age-old battle with the defenders, precisely the clash the strategic theorists had promised they could avoid.

The British took up bombing at night to evade the worst of the defenses; and the Americans found themselves in a fighter-plane battle for control of daylight skies over Germany as Chennault had warned. It had become a war of attrition even in the air. By the time the United States built up its fighter and bomber forces enough to overwhelm German air defenses, the forces were diverted to support tactical objectives for the impending invasion of Europe.[4] Thus the theory of strategic bombardment remained either incompletely tested (to airmen) or discredited (to the critics).

In the Pacific, a strategic campaign was carried out on land, under the sea, and in the air. Because of the "Europe first" policy adopted by Roosevelt and Churchill, the Pacific war had to be fought with an economy of force, not by attrition. On the surface, MacArthur and Nimitz pursued island-hopping campaigns to seize only bases needed to close on the strategic objective of Japan. They did not attempt to defeat the enemy en masse or to push back its entire perimeter. Under the sea, American submarines closed the waters around Japan to shipping[5] instead of scouring open seas for enemy naval forces.[6] In the air, both MacArthur and Nimitz used their air forces tactically to support strategic island-hopping campaigns that led to air bases within practical striking range of Japan. It was Curtis LeMay who then used such bases to strategically launch aircraft over Japan.

DOD

Loading equipment for Desert Shield.

After learning that the theory behind the development of the B–29 wasn't workable, LeMay completely subverted available means to pursue strategic ends. Since the combination of daylight bombing from self-defended formations at high altitude using high-explosive bombs could not gain the desired effect, he stripped the defensive armament from B–29s and flew them at night without formations and at medium altitude to maximize their loads of incendiaries. Whatever the legality or morality of such bombing, LeMay was clearly on the way to burning down every major Japanese city when the atom bomb punctuated his campaign with an exclamation point.

the strategic idea appeared finally to have come of age in the 1950s

The Strategic Bombing Survey,[7] conducted following World War II to validate or refute strategic bombardment theories, did not resolve the dispute, although the atom bomb now seemed to make the argument academic. It was obvious that even a few bombers armed with these atomic weapons could be enormously destructive; and defenses able to deny all the planes access to their targets seemed all but impossible. The advent of the ballistic missile, with access times measured in minutes rather than hours, simply compounded the problem of defense against strategic actions. The strategic idea appeared finally to have come of age in the 1950s.

But the strategic stalemate of the Cold War was bypassed in a series of conflicts in which strategic objectives were tempered by larger political considerations than fighting or winning wars. In Korea, Vietnam, and elsewhere pursuit of strategic objectives, while technically and militarily feasible, was deemed too risky in its potential impact on other foes and domestic support. Even as strategic thinking defined the broader and more vital framework of the Cold War, it seemed useless for militaries mired in conflicts where the strategic options were arrogated to their civilian leaders.

In retrospect, however, strategic thinking did reappear periodically, sometimes in stunning forms—and not just in framing and sustaining the nuclear standoff at the nexus of the Cold War. While it may have been conceived as a tactical alternative at the time, the Berlin airlift of 1948 was a strategic masterpiece. It not only fulfilled its tactical objective of feeding and fueling the populace of Berlin (that is, dealing with the matter at hand); it *transformed* the game on the strategic level. The Soviets blockaded land routes to Berlin, believing that the West would have to choose between initiating hostilities (perhaps precipitating World War III) or abandoning Berlin. Supplying Berlin by air was inconceivable to the Soviets based on their own limited experience with airlift and the failed German effort at Stalingrad. What no one on either side seemed to recognize then or now is that an airlift would turn the tables and oblige the Soviets to initiate hostilities. That was check. When the sufficiency and sustainability of the airlift became apparent, it was checkmate. Thereafter, if the blockade was to be continued the West could only gain international admiration at the expense of the Soviets.

The Cold War yielded another transformatory strategic action in the Cuban missile crisis. On the strategic (game defining) level, the struggle for world opinion focused on who was telling the truth about missiles in Cuba. The United States asserted their presence and the Soviet Union denied it. Both sides had predisposed supporters in the absence of contrary evidence. The aerial reconnaissance of Cuba, clearly revealing a build-up of Soviet missiles and facilities, transformed the debate. In a dramatic moment, Adlai Stevenson, the U.S. representative to the United Nations, posted the reconnaissance photographs for all the world to see and declared that he was prepared to wait until hell froze over for the Soviet explanation of the evidence. The aerial reconnaissance and public release of the photos (unprecedented at the time) was a strategic action—the pursuit of the Nation's highest purposes without first defeating enemy forces.

Note that both the Berlin airlift and the Cuban reconnaissance utterly transformed the

East-West games being played at the time; yet strategic objectives were accomplished not by force but with military capabilities that normally support fighting forces. These cases are stunning proof that the strategic use of military power does not always take the form of military force. Indeed, cases of strategic action during the Cold War which involved the use of force are much more ambiguous in their effectiveness. They include coercive and punitive raids on Hanoi and Libya—the first to bring the North Vietnamese to the negotiating table and the second to punish Kadafi for presumed connections with terrorism. The pertinence and impact of both actions are still argued today.

When the Flame Is Low

With the end of the Cold War and the political constraints imposed by the risks of nuclear confrontation, one might have expected a renaissance in strategic thinking in the American military. It hasn't happened. Both the Persian Gulf War and Bosnian conflict have been approached mostly in operational and tactical terms. In the Gulf, only the first rapid deployments into the theater as part of Desert Shield prior to October 1990 were unambiguously strategic, at least as defined here. Protecting oil fields south of Kuwait was our first and highest interest; and that was accomplished by force deployments, not engaging and defeating enemy forces. Subsequent interests—ejecting the Iraqis from Kuwait and ending the threat to the region—were largely approached operationally and tactically: Iraq's air defenses were temporarily neutralized and its air force shattered. Coalition ground forces were built up until they were capable of frontal assaults on Iraqi armies that had been weakened by aerial attacks. Even the Scud missile threat was dealt with tactically—offensively in Scud hunts and defensively by Patriot missiles—to keep Israel out and the coalition together, both of which were means, not ends.

military power can sometimes be brought to bear when it is applied without first defeating defending enemy forces

Thus the Gulf War was not dominated by strategic actions; it was mostly a demonstration of operational and tactical virtuosity—precisely the sort of opportunity our military has increasingly sought from civilian leaders since Vietnam. Moreover, subsequent actions in the Gulf have been mostly tactical: punitive strikes against an intelligence facility and air defense installations. Two air embargoes have not stopped Iraq from either using helicopters or abusing its own minorities.[8]

The strategic ends to which our military power might be applied over Iraq today are not so clear. Hence we default to a tactical use of force: beating up the opposition. The strategic problem is the Iraqi leadership, not its people nor its military; and separating these elements for the strategic application of military power is not easy. Airpower is thus applied to tactical ends, to taking down air defenses in preparation for what—other tactical applications of airpower? This is evidence that the strategic flame has dimmed.

Curiously, the American response to the Bosnian conflict may have demonstrated more by way of strategic thinking. Dropping supplies was the direct pursuit of one of our highest interests at the time—heading off winter starvation within the Muslim enclaves—without seeking to engage opposing forces. While the air embargo over Bosnia appears to have been no more effective than efforts over Iraq, Operation Deliberate Force may have been a direct factor in ending the fighting and bringing the Serbs to the bargaining table. Moreover, it appears that the strikes in Deliberate Force were not directed so much at military forces as at intimidating their leaders. We may have to wait for history to clarify the strategic thinking involved in the run-up to the Dayton accords.

Such examples and the definition of the strategic idea might suggest deliberate exclusion of fighting or surface forces. Not so. Throughout the Cold War, fighting forces—whether land, sea, or air, nuclear or conventional, whose presence and readiness served to deter conflict—were key to the grand idea that military power can sometimes be brought to bear most effectively and efficiently when it is applied directly to the highest national interests without first defeating defending enemy forces. That grand idea does not exclude applying military power directly against opposing forces if their defeat or destruction advances national interests. There are circumstances when that could conceivably be an end in itself, without further action, such as eliminating enemy capabilities for employing weapons of mass destruction. But the cases are few. Eliminating the Iraqi Republican Guards as a power base for Saddam Hussein might have been strategic in intent, but their power rested in their loyalty to him more than their arms. Thus their defeat on the battlefield may not have been a sufficient means to that end.

Israel seems to have appreciated the strategic use of military means for its highest interests in the 1976 Entebbe raid and the 1981 strike on the nuclear reactor near Baghdad. These probes were not about defeating enemy forces or winning a war; both were direct applications of military force toward national ends—recovering hostages and thwarting hostile nuclear developments.

Nevertheless, the strategic role of fighting forces began to shift when nuclear weapons and global access became feasible in the mid-20th century. This time, the seminal strategic thinking seemed to spring from civilians rather than the military. Bernard Brodie was thinking strategically fifty years ago when he observed what nuclear weapons implied: "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose."[9] At about that time, George Kennan suggested that our interests would best be served by "a long-term, patient but firm and vigilant containment of Russian expansive tendencies [until] the break-up or the gradual mellowing of Soviet power."[10] These ideas on deterrence and containment remained pivotal to our thinking about national security throughout the forty-year Cold War. Of course they would be modified and elaborated over time and in light of new developments, both political and technical. Containment was embellished with massive retaliation, flexible response, and détente. Deterrence was defined by criteria of assured destruction, extended to cover allies, and eventually mocked as mad. Concepts for massive civil defense and missile defense programs disturbed, but could not displace, deterrence as the strategic core of national security. Vestiges of that core are still found in operational thinking, in explaining the purpose of military forces—to deter enemies and, if that fails, to fight and win.

With the end of the Cold War and recession of an immediate nuclear threat to our survival, tactical thinkers may have anticipated that the military could get back to its real job—winning wars. Alas, as Martin van Creveld suggests, the relevance of traditional state-on-state warfare is declining in a world where proliferating nuclear technology is an inevitable consequence of global trade:

Slowly, unevenly but inexorably, nuclear proliferation is causing interstate war and the kind of armed forces by which it is waged to disappear. The future belongs to wars fought by, and against, organizations that are not states. . . . Unless some yet to be designed system enables states to reliably defend themselves against nuclear weapons . . . the writing for large-scale, interstate war, as well as the armed forces by which it is waged, is on the wall.[11]

When the Flame Dies

The strategic flame can go out. It flickered twice in the past—both before and after World War II. It died with Billy Mitchell's court martial and the exile of upstart Army aviators to dusty posts in Kansas or fetid jungle camps in Panama or the Philippines to atone for their radical ideas. It briefly went out again when America demobilized after World War II and before the onset of the Cold War. On both occasions we had to scramble to rekindle it and rebuild new institutions from scratch. And, to our peril, we very nearly missed rebuilding in time.

Although our experience in rekindling the strategic flame is limited, a pattern is evident. It starts with a seminal strategic idea—how military power might be more effectively and efficiently applied to pursuing national interests without necessarily engaging defending enemy forces. That idea is then translated into strategic doctrine—rules or principles about the best way military power can be forged to pursue strategic objectives. The doctrine then becomes the objective specifications for developing military capabilities and drives the acquisition of new systems. This pattern could be recognized when the strategic flame was relighted at the Air Corps Tactical School in the 1930s and in the Strategic Air Command (SAC) in the 1950s.

As war clouds gathered over Europe in the 1930s, airmen at the Tactical School at Maxwell Field began to entertain the idea of economic targeting. It was a strategic idea in the sense defined here. It presumed that an enemy might be defeated by destroying critical economic activities—factories, industries, resources—supporting its war machine. But these airmen did not know how to execute that idea at first. They had to study national economies to identify economic targets; and they had to determine how to damage or destroy such targets. Their answer was precision aerial bombardment. But they went further doctrinally. To be precise they needed a better bombsight; and to see targets they had to bomb by daylight. To gain access to targets without first defeating defending enemy forces, they would need long-range bombers that could survive by flying at high altitude in self-defended formations. That doctrine drove development of the Norden bombsight and the acquisition of the B–17 Flying Fortress. Establishment of the semi-independent Army Air Forces followed as these capabilities emerged.

Strategic thinking came first, before the capabilities were in hand. Doctrine, development, acquisition, and institution-building followed logically. It can be argued that the strategic thinking at the Air Corps Tactical School was not sound, that the theory of economic targeting was beyond the means chosen by at least another decade—it would take a breakthrough in the destructiveness of weapons. But the validity of their theory is not the test for the existence of strategic thinking. No

Berlin airlift, 1948.

U.S. Air Force

Norden bombsight.

Northrop Grumman

one would suggest abandoning operational or tactical thinking if it sometimes proved wrong or reached beyond available technology. Airmen in that day were thinking strategically and thus laid the foundations for American security policies for the next half century.

The very same pattern was repeated in the emergence of SAC some two decades later. As the outlines of the Cold War began to take shape in the late 1940s, America's nuclear posture was in disarray: Neither the weaponry nor means of delivery had been maintained beyond research and experimentation. This time, the seminal strategic thinking came from civilians like George Kennan and Bernard Brodie in the concepts of containment and deterrence. The military problem was how to implement the concept of deterrence. The solution was to make the threat of nuclear retaliation to an attack on the United States so evident, quick, certain, and massive that any rational enemy would be dissuaded from making such a mistake. But again it was strategic doctrine that drove developments, acquisition, and institutions. Central to SAC was the doctrine of a single integrated operational plan, the scheme to constantly maintain trained, tested, ready nuclear forces to execute a massive, coordinated nuclear attack upon the Soviet Union. That plan drove the development of a series of bombers and ballistic missiles, tested their crews, and argued for requisite force levels. The institution that evolved became the military centerpiece of the Cold War; and its effects are still evident in military planning and culture today. SAC wasn't conceived to defeat an enemy air force; it was designed to fulfill the Nation's highest security objective directly—to deter a nuclear attack by the visible threat of unacceptable damage through a well-coordinated retaliatory strike. Nor was the fleet ballistic missile program conceived to defeat an enemy navy;[12] it was specifically designed to fulfill that same objective directly, but with an assuredly survivable force—one which denied the enemy any plausible counterforce option. As with strategic bombardment theories of the 1930s, deterrence theories of the 1950s may seem naive or simplistic today, but they were determinants of the path that led to the present; and they arose from strategic thinking.

seminal strategic thinking came from civilians like George Kennan and Bernard Brodie

Why Has the Flame Dimmed?

From the beginning—when the strategic flame burned most brightly during the first half of the Cold War—some worried that a traditional test of military weapons between armies and navies could force our hand—that we could be self-deterred from being the first to use our nuclear strike forces even as we suffered a traditional defeat. The Korean war lent credence to that argument.

Hence we built up other arms—conventional or tactical to differentiate them from nuclear or strategic—and thus started a destructive division in our minds and institutions that still haunts us. Tactical weapons grew until they dwarfed their strategic counterparts; they even acquired nuclear weapons and found a niche in nuclear war plans. At great cost, they provided the United States and

its allies with an uneasy degree of security in Western Europe and Korea. A warfighting role was even found for these conventional forces in Southeast Asia until we learned to our chagrin that they became hostages that could be extracted only after we resorted once again to strategic strikes against enemy will, values, and resources.

Nevertheless, the strategic flame was much reduced by our attention to conventional arms, not by funding so much as interests. The military has once again built up large vested interests in traditional weaponry—intended to defeat their opposite number in kind, to fight and win wars—to the neglect of other capabilities (such as special operations forces) that might be more directly and adroitly applied to the Nation's highest or ultimate objectives.

In order to retain and modernize traditional arms, our military institutions have contributed to the reduction of the strategic flame. Once again, as occurred earlier in this century, the military—including the aviators—has become mostly rooted in the idea that weapons should be conceived to defeat their opposite numbers in a major regional conflict—with armies confronting armies and air forces opposing air forces. The Navy, with no other significant maritime power to defeat, has oriented itself on projecting power over the land from the sea. But this concept remains mostly operational in nature—about the kinds of units needed to provide presence and project power.[13]

U.S. Air Force (Marvin Lynchard)

F–117 precision bombing.

For the most part, however, the mid-20th century strategic idea that a military can be used for something more pertinent than defeating its counterpart has been pushed into the background. So the strategic flame has dimmed. If it is again extinguished by larger vested interests or neglect we may find ourselves struggling against time to rekindle it once more.

Relighting the Flame

What must be done to rekindle the strategic flame? Reduced resources pose difficulties, but they are not the problem. The flame can be kept burning with even a fraction of today's defense budget. But it can't endure without devotion and spirit. It is easy to have both when institutional fortunes are soaring and assets abound. Keeping faith in ideas rather than things is difficult when institutions and resources are focused on things. As in the case of those strategic pioneers at mid-century, strategic thinkers within the military today may get greater support from the public, from outside the defense establishment. That is altogether fitting, for keepers of the strategic flame serve the Nation even more than they do the institutions to which they belong.

The strategic idea can't always be applied successfully, as history has shown. Sometimes the available technical means are not up to the demands. And sometimes the ends are not apparent. Unfortunately for those devoted to things rather than ideas, new strategic means cannot be defined apart from evolving strategic ends. That was part of the trap into which we fell some fifty years ago by dividing forces along strategic and tactical (nuclear and conventional) lines. It is not that we lack the ability to define strategic means once the strategic ends have been defined; we neglect to spend the effort up front to define and pursue the strategic ends. It is the keepers of the strategic flame who must find strategic ends for applications of military power, for no others will assume that responsibility. It took hard work and acrimonious debate to define the ends for the strategic applications of military forces twice before—and it will again.

How do we attend to strategic ends before the demand arises? In the same manner that we did in the past. No one directed the Air Corps Tactical School to think about economic targeting. No one told LeMay that the means for deterrence was to be found in a comprehensive nuclear war plan. Thinking about strategic ends—and means to achieve them before a threat presented itself—rekindled the strategic flame and set it to burning brightly, at least back in those days.

Thinking about these ends seems daunting. Determinants of the future are in flux on many levels—national interests, resources, threats, and technology. During the Cold War those issues at

least seemed relatively constant; and we became good at hedging against uncertainties with rapidly changing technology. But it is no longer possible to depend on abundant resources or precisely know who or where an enemy will be or what will be required of our military to directly serve the Nation. Contemplating strategic ends across this spectrum can boggle the mind; but it need not if we think strategically instead of tactically.

The strategic applications of military power are about choosing the ways, places, and times to get at the heart of the matter. The initiative lies with us when we think strategically. The burden of strategic thinkers is to explore beforehand what may be worth doing and why. Not only in war, but when friends are isolated—Berlin in 1948 and Bosnia in the early 1990s. Not just for war, but when we need to punish—Libya in 1986 or Bosnia in 1995. Not just to destroy, but when help is needed—the aftermath of Hurricane Andrew and Provide Comfort. Not just to strike, but to know what is going on—over Cuba in 1962 and Rwanda in 1996.

the burden of strategic thinkers is to explore beforehand what may be worth doing and why

Future strategic challenges may include asymmetrical conflicts (as the first world confronts threats in the second and third), terrorism with no definable state roots, and ethnic, religious, and separatist movements. They may involve a proliferation of weapons of mass destruction beyond state controls. The world may see uncontrollable migrations and contraband as borders between nation-states erode. And all this may have to be addressed as traditional nation-state sovereignties and resources decline. Preparing for war, though still necessary, will be insufficient.

The strategic idea is arguably the most important military concept of this century as well as the next. It is a much bigger idea than the one that dominates our military institutions today—warriors being able to defeat other warriors of like kind. It is serving the Nation—more directly, effectively, and efficiently—not just testing new arms one against the other. History tells us that strategic thinking requires courage and perseverance: courage because it demands departures from mainstream thinking and perseverance because it takes time for institutional mainstreams to move and join the "discovered" innovative courses of thought. JFQ

NOTES

[1] In 1955, when the United States was urgently preparing for imminent thermonuclear war with the Soviet Union, the defense budget was $242.8 billion in 1995 dollars. In 1995 the amount was $271.6 billion. From *The Budget of the United States Government for Fiscal Year 1996*, historical tables, reported in *The National Review*, vol. 47, no. 24 (December 1995), p. 21.

[2] For a reprise of *JV 2010*, see *Joint Force Quarterly*, no. 12 (Summer 1996), pp. 34–50.

[3] Even the missile defense debate seems to reflect this point. Only the political discussion addresses strategic concerns, whilst military concerns are mostly tactical.

[4] Not only were bombers diverted to tactical military objectives, the invasion itself had the tactical objective of destroying the enemy. Eisenhower's invasion order (written by himself) was to enter Europe and do just that. At the same time, other leaders advanced strategic objectives such as seizing Berlin (Stalin and Patton) and blocking Soviet occupation of Eastern Europe (Churchill) by invading through the Balkans.

[5] Submarines were aided in that strategic objective by aerial mining, including a number of sorties flown by B–29 bombers then massing in the western Pacific.

[6] The Japanese used submarines mostly for the tactical objective of sinking American naval vessels in open ocean areas of the western Pacific.

[7] See David MacIsaac, *Strategic Bombing in World War Two: The Story of the United States Strategic Bombing Survey* (New York: Garland Publishing, 1976).

[8] In fact, the only confirmed effect so far has been the shooting down of two American Blackhawk helicopters.

[9] Bernard Brodie, editor, *The Absolute Weapon* (New York: Harcourt Brace, 1946), p. 76, as repeated by its author in *War and Politics* (New York: Macmillan, 1973), fn. 2, p. 377.

[10] George F. Kennan writing as "X" in "The Sources of Soviet Conduct," *Foreign Affairs*, vol. 25, no. 4 (July 1947), pp. 575, 582.

[11] Martin van Creveld, "Air Power 2025," in *New Era Security* (RAAF Air Power Studies Centre, June 1996).

[12] Indeed, the Navy sometimes argued that the fleet ballistic missile program served the Nation more than itself and thus should not come out of the Navy budget. See Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: The Johns Hopkins University Press, 1989), pp. 199–200.

[13] Department of the Navy, *Forward . . . from the Sea* (Washington: Department of the Navy, 1994).

Marines coming ashore for Unitas 37–96, Paraguay.

U.S. Navy (James Slaughenhaupt)

Examining Alternative UCP Structures

Preparing F–15Cs at Azaraq air base, Jordan.

U.S. Air Force (Paul R. Caron)

By CHARLES S. ROBB

The United States has maintained major unified commands to control its operational forces since World War II. The "Outline Command Plan," approved by President Truman in 1946, was the first in a series of planning documents, now referred to as unified command plans (UCPs), for structuring high level commands.[1] Over a dozen such plans have been adopted over the decades, many resulting in major reorganizations to accommodate international developments. Since 1979 the UCP has been reviewed biennially. The latest review began in January, and its results will be reported to the President in July. This article identifies several shortcomings in the existing UCP and explores alternative concepts. In an effort to stimulate innovative, out-of-the-box thinking on command structures, two radically different and significantly smaller structures are proposed.

The current UCP—comprised of five regional and four functional unified commands[2]—raises several concerns:

- With the exception of the creation of U.S. Strategic Command (STRATCOM) and the reorientation of U.S. Atlantic Command (ACOM), the current structure remains unchanged since the Cold War.[3] It is unlikely that the challenges of the 21st century will best be met by such a command plan.
- The current structure is relatively large in terms of the number of commands, personnel (today over 5,500 are assigned to nine unified command headquarters), and budgets.
- No regional CINC is responsible for Russia with its more than 20,000 nuclear weapons.
- Some existing boundaries between areas of responsibility (AORs) make little sense, such as including Israel (for political reasons) under U.S. European Command (EUCOM) rather than U.S. Central Command (CENTCOM) or dividing two regional protagonists, such as Pakistan and India, between CENTCOM and U.S. Pacific Command (PACOM), respectively.
- Duplication is evident and—in a period of drastic downsizing—we are witnessing the relocation of U.S. Southern Command (SOUTHCOM) to a new headquarters in Miami.

The Honorable Charles S. Robb represents the Commonwealth of Virginia in the U.S. Senate and currently serves on the Committees on Armed Services, Foreign Relations, and Intelligence.

FY97 National Defense Authorization Act

SEC. 905. MATTERS TO BE CONSIDERED IN NEXT ASSESSMENT OF CURRENT MISSIONS, RESPONSIBILITIES, AND FORCE STRUCTURE OF THE UNIFIED COMBATANT COMMANDS.

The Chairman of the Joint Chiefs of Staff shall consider, as part of the next periodic review by the Chairman of the missions, responsibilities, and force structure of the unified combatant commands pursuant to section 161(b) of title 10, United States Code, the following matters:

(1) Whether there exists an adequate distribution of threats, mission requirements, and responsibilities for geographic areas among the regional unified combatant commands.

(2) Whether reductions in the overall force structure of the Armed Forces permit the United States to better execute its warfighting plans through fewer or differently configured unified combatant commands, including—

(A) a total of five or fewer commands, all of which are regional;

(B) a total of three commands consisting of an eastward-oriented command, a westward-oriented command, and a central command;

(C) a purely functional command structure, involving (for example) a first theater command, a second theater command, a logistics command, a special contingencies command, and a strategic command; or

(D) any other command structure or configuration the Chairman finds appropriate.

(3) Whether any missions, staff, facilities, equipment, training programs, or other assets or activities of the unified combatant commands are redundant.

(4) Whether warfighting requirements are adequate to justify the current functional commands.

(5) Whether the exclusion of certain nations from the Areas of Responsibility of the unified combatant commands, presents difficulties with respect to the achievement of United States national security objectives in those areas.

(6) Whether the current geographic boundary between the United States Central Command and the United States European Command through the Middle East could create command conflicts in the context of a major conflict in the Middle East region.

Such concerns led me to add a provision to the FY97 National Defense Authorization Act requiring a look at the distribution of responsibilities among commands, number of commands, redundancies across commands, justifications of functional commands in terms of warfighting, and boundaries between regional commands (including exclusion of certain nations from existing AORs). Because the UCP review parallels the ongoing quadrennial defense review (QDR) and the unified commands are integral to force structure, the act also called for exploring the "advisability" of UCP revisions given the proposed QDR strategy. Both reviews are reportedly proceeding cooperatively to ensure that any command revisions are consistent with evolving military strategy.

Alternative Paradigms

One way of developing an optimal command structure is to evolve the existing arrangement incrementally. This essentially has been the approach since the Cold War ended. The fact that an abrupt change in the international scene did not bring a concurrent reorganization of our command structure suggests that the evolutionary approach may be inadequate. The UCP review conducted by

support functions can be subordinated to unified commands or handled by a joint agency

General Colin Powell in 1990 took some bold steps toward innovative thinking on command structure. In place of the ten commands that existed at the time, he proposed a total of six commands: strategic, contingency, transportation, Americas, Atlantic, and Pacific. Nevertheless, the proposal was used only as a starting point with little expectation of its adoption.

A second approach is to start from scratch by developing essential criteria for unified commands, then identifying what type of structure best satisfies them. Such a structure should, at a minimum:

- effectively execute national military strategy
- maintain a logical and unambiguous chain of command
- minimize duplication (except to enhance wartime survivability and endurance)
- balance responsibilities evenly across commands
- provide clear objectives and a manageable span of control for each command
- prove cost-effective, flexible, and adaptable.

One might also make the case that a unified combatant command should be for warfighters, or those directly executing rather than supporting military forces in conflicts and contingencies. Support functions can be subordinated to unified commands or handled by a joint agency or other organizational entity.

With the main criteria established, one can consider the basic command structures against which to apply criteria for an optimal structure. Figure 1 shows nine theoretical ways to organize commands. The first, by combat service, is included because it illustrates how the Armed Forces

Figure 1. Command Structure Paradigms

By Service	By Region	By Function	By Operational Medium	By Conflict Level/Type	By Readiness	By Basing	By Threat	By Strategy Objectives
Army	Pacific **PACOM**	Warfighting	Ground	Presence	High	U.S.	Opponent A	Homeland Defense
Navy	Atlantic **ACOM**	Transportation **TRANSCOM**	Sea	Peace Operations	Medium	Mobile	Opponent B	Fight and win in two MRCs
Air Force	South/Central America **SOUTHCOM**	Communications	Air	Low Intensity Conflict **SOCOM**	Low	Forward	Opponent C	Protect vital interests (citizens, LOCs, etc.)
Marine Corps	Europe/ Africa **EUCOM**	Acquisition	Littoral	Theater (Conventional)			NBC Weapons	Counter NBC
	Middle East **CENTCOM**	Intelligence	Space **SPACECOM**	Theater (NBC)			Terrorism/ Narcotics	Counter-Terrorism/ Narcotics
	Russia	Training		Strategic **STRATCOM**			Regional Instability	Regional Stability

might fight if joint commands were abolished. The paradigms, by dividing organizational themes into component parts (and not combining "apples and oranges"), are internally logical, relatively unambiguous, and involve limited duplication.

One problem arises immediately when we establish commands across paradigms—in other words when command types are mixed. For instance, in the current UCP as highlighted in figure 1, it is clear that many missions have been elevated to unified command status while others, of equal importance, have not. There is U.S. Transportation Command (TRANSCOM), but no command dedicated to intelligence; U.S. Space Command (SPACECOM), but no command responsible for any other operational medium; STRATCOM, but no command devoted to peace and humanitarian operations—activities that take up a good deal of our operational capabilities. Although not a title 10 unified command (and thus not highlighted in the figure), there is a CINC for Korea, but none for other subregions or threats.

There are many other concerns suggested by this structure that are not apparent in figure 1, but the most salient involve the ambiguity of responsibilities. If the Chairman decides to dispatch airlift to support training special operations forces in Saudi Arabia, does he contact TRANSCOM, U.S. Special Operations Command (SOCOM), or CENTCOM? To those familiar with the detailed responsibilities of unified commands, the answer may be obvious. But to the uninitiated, or those with some knowledge of efficient management techniques, the current structure looks ambiguous.

In trying to identify a more logical and cost-effective command structure than the present mix of regional and functional commands, I have restricted the options to a pure paradigm (one of the columns in figure 1) and one with considerably fewer than the existing nine commands. After applying the criteria discussed above to each paradigm, two stand out—a purely regional structure (column 2) and another organized around national military objectives (column 9).[4]

A Regional Structure

An exclusively regional structure involving five or fewer commands satisfies several of the six criteria set forth earlier:

■ *Execute national military strategy*. With a CINC and his staff representing and fostering U.S. security interests in key regions throughout the world, we ensure strong ties with allies and friends, remind potential foes of our commitments, deter the outbreak of regional conflicts, and maintain strong regional expertise. Thus this structure provides a good fit with our national strategy of engagement and enlargement. In the opinion of some, however, it might go too far. Dividing the world into military fiefdoms, an approach not taken by other major powers, could smack of imperialism and frequently puts CINCs in ambassadorial roles. This can send mixed signals to nations that we are trying to wean away from military interference in politics.

■ *Logical and unambiguous*. So long as all regions are covered and no AORs overlap, the structure provides an unambiguous chain of command.

■ *Minimize duplication*. If many regional commands are established, duplication becomes significant if each command generates its own bureaucracy complete with support functions.

■ *Balance responsibilities*. If AORs are sized properly in relation to threats, missions, objectives, and the geography covered, responsibilities can be assigned evenly among CINCs.

■ *Clear objectives and manageable span of control*. Objectives are broad in that each CINC must execute most aspects of national military strategy in his AOR. Control can be problematic if the regions are too large, and problems of span of control arise if more than one major contingency or conflict occurs in a given AOR. CINCs and their staffs could, under these circumstances, be spread too thinly and associated communications and support assets could be overwhelmed.

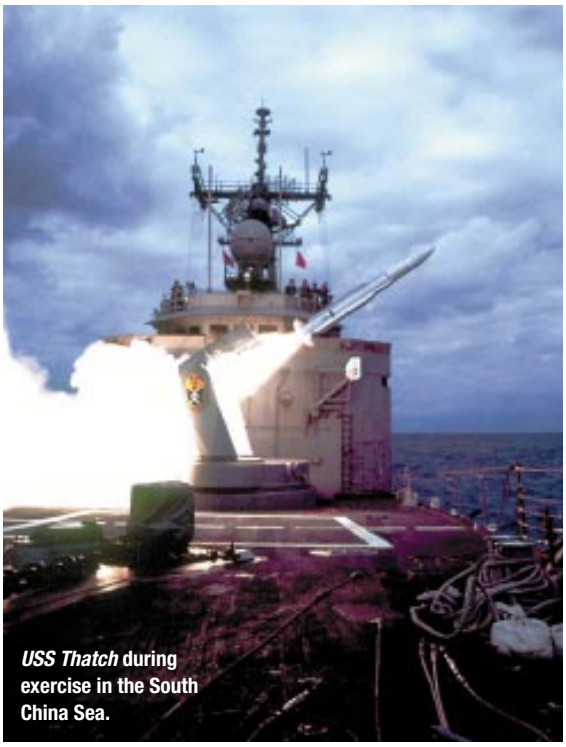
■ *Cost effective, flexible, and adaptable*. A regional approach is cost-effective only when duplication of staff functions is controlled. It is quite flexible to the extent AORs can be adjusted regularly to accommodate new regional challenges.

In terms of existing trans-regional (functional) missions, each of those now supported by a unified command could be accommodated differently. Only Russia and China now house strategic nuclear weapons that directly threaten the continental United States. If both nations were combined within the same AOR, our strategic nuclear forces could be assigned to that CINC. Alternatively, they could be placed under a central U.S., North America, or Americas command that serves as the principal force supplier and integrator, including strategic forces. SPACECOM and TRANSCOM functions could also be assigned to subunified commands or joint centers under a U.S. command. Some could be assigned to existing agencies (such as the Defense Information Systems or Defense Logistics Agency) or new agencies structured differently. Most SOCOM training and integration functions could be moved to joint integration and training functions under development at ACOM, but in this concept such functions would logically fall under a central U.S. command which serves CONUS-based conventional ground and air forces.[5]

theater commands would fight and win two MRCs as stipulated in the Bottom-Up Review

A Functional Structure

Another viable structure could be based on national military strategy.[6] Under an objectives-based structure (figure 2), each command would be assigned one or more key objectives identified in national military strategy. A "strategic defense command" would help to protect the homeland. It combines all of the essential missions for this purpose, including strategic nuclear strike (under STRATCOM at present), national missile defense (once it is deployed early in the next century), and North America warning and air defense (now under SPACECOM and the North American Aerospace Defense Command). The theater commands would fight and win two major regional conflicts (MRCs) as stipulated in the Bottom-Up Review. SOCOM would focus on countering the spread of weapons of mass destruction and terrorism—which together were seen as "our number one national security threat" by former Senator Sam Nunn. It would also maintain its focus on low-intensity conflict, counterinsurgency, foreign internal defense, etc. A "stability enhancement command" would strive to preserve regional stability through missions ranging from presence through peace operations through disaster relief support.



***USS Thatch* during exercise in the South China Sea.**

U.S. Navy (Lou Messing)

This concept fits the above criteria even better than does the purely regional structure:

■ *Execute national military strategy*. The structure directly and clearly supports national strategy because it is organized by national military strategy objectives.

■ *Logical and unambiguous*. Missions are quite clear and there is little ambiguity as to who will execute a military mission at any point on the conflict spectrum (from peace operations through strategic nuclear war).

Figure 2. Objectives-Based Command Structure

Command	Objective	Missions
Strategic Defense Command (SDC)	Deter and prevent and, if necessary, respond decisively to a military attack on the U.S. homeland.	■ Strategic nuclear warfare ■ National missile defense ■ North America air defense ■ Strategic warning
First Theater Command (FTC)	Deter and prevent and, if necessary, fight and win, one major regional conflict where vital U.S. interests are at stake, and lesser regional conflicts where resources allow.	■ Major theater warfare ■ Lesser regional conflicts
Second Theater Command (STC)	Deter and prevent and, if necessary, fight and win, one major regional conflict where vital U.S. interests are at stake, and lesser regional conflicts where resources allow.	■ Major theater warfare ■ Lesser regional conflicts
Special Operations Command (SOC)	Provide military support, directly and indirectly, to allies and friends of the United States, as well as democratic institutions.	■ Low-intensity conflict ■ Counterinsurgency ■ Foreign internal defense ■ Psychological operations
	Deter and prevent the spread of key transnational threats.	■ Counterproliferation ■ Counterterrorism ■ Counternarcotics
Stability Enhancement Command (SEC)	Deter and prevent regional instability that is inimical to important or vital U.S. interests.	■ Presence ■ Peace enforcement ■ Peacekeeping ■ Civil affairs ■ Humanitarian support ■ Disaster relief ■ Military-to-military exchanges

■ *Minimize duplication*. Each of the five current regional commands is capable, in theory, of fighting one or two MRCs as described in our national military strategy. But no more than one or two commands would be needed to execute that strategy. Under an objectives-based structure, there is one command for each conflict—essentially eliminating duplication in major conflicts.

■ *Balance responsibilities*. Each CINC is assigned a major component of national military strategy and can selectively deploy resources to fulfill the strategy. But no CINC has considerably more or less responsibility in terms of the importance or manageability of assigned missions.

■ *Clear objectives and manageable span of control*. CINCs are assigned discrete objectives of national military strategy and can focus on ensuring those objectives are fulfilled. And whereas the span of control of one regional CINC may be stretched thin by two nearly simultaneous MRCs and a major peace operation, this arrangement could readily handle concurrent contingencies.

■ *Cost effective, flexible, and adaptable*. Duplication for two MRCs is greatly reduced, and with five instead of nine commands administrative redundancy would be largely eliminated. In terms of flexibility, a theater command could be abolished if the requirement for a two-MRC force is dropped, or one or more could be added if a potential superpower arose. This structure should be suitable for the decades ahead.

Further review reveals other advantages. Figure 3 shows how forces might be assigned to commands. Using roughly the current total force size in terms of ground divisions, air wings, and ships, this construct would provide adequate forces to meet two MRCs plus other commitments. By assigning units this way, all forces have an unambiguous role, CINCs know what their assets are in advance, and indeed we can maintain better unit cohesion since assignments and promotions can be kept largely within a given command. This organization tends to limit excessive demands for forces: CINCs wanting more than assigned will have to take them from other CINCs and thus directly impact the readiness of lending commands. Some assets, especially expensive or

limited ones such as carriers or AWACS, would necessarily be shifted across commands depending on their availability and would not be permanently assigned to any single command.

A particularly appealing aspect of this objectives-based structure is its potential to support national strategy with less funding. In addition to savings from a reduced command infrastructure (not only in terms of unified but also associated service commands), it lends itself to a less costly readiness posture based on more realistic planning assumptions than those found in the Bottom-Up Review. We maintain large active forces ready to engage in two MRCs. Being poised to fight two nearly simultaneous MRCs makes sense (see excerpted Op-Ed article at right), but the decision to maintain forces slated for both MRCs at a high state of readiness is questionable.[7]

The Bottom-Up Review prudently assumed less than two weeks of warning time prior to initiation of a single MRC. The Director of Central Intelligence testified that North Korea could launch an all-out attack on the south with little or no warning. According to news accounts, Iraq's movement toward Kuwait was misinterpreted by our intelligence community in 1990. Many conclude, therefore, that forces slated for deployment to each conflict must possess a high state of readiness. However, to justify a large, highly ready force for each MRC, we must assume that the conflicts will break out within weeks of each other, that the United States will fail to get adequate warning in both theaters, *and* that the Armed Forces will respond quickly in both areas. While the likelihood that all three of these conditions will occur is remote, our force structure is based on such assumptions.

It is more realistic to assume that the United States will have weeks if not months from the initial warning of hostilities in the first theater to

The Washington Post

January 15, 1997, p. A19

Charles S. Robb

Be Ready for Two Desert Storms

. . . We live in an era in which potential opponents—including countries we have not yet envisioned as adversaries—have or will have the mobility and firepower to exploit a U.S. diversion in another theater. If the United States is engaging North Korea and has limited additional forces on hand, who is to deter the Iraqis from moving south again, or the Iranians from consummating their designs on the Persian Gulf, or the Bosnian peace from dissolving?

With [a one-MRC force], an American President would be constrained from employing force in one theater because of the knowledge that another region might ignite as a result. In terms of manpower, ground divisions, ships, and fighter wings, we already have cut our force structure by roughly one-third. In the context of conventional forces, [a one-MRC force] would put the United States into marginal superpower status and invite an arms buildup by some economically potent asnd militarily ambitious nation.

Those who have cut our military in this way argue that a rogue nation in a second region would be deterred by the knowledge that the United States would be able to fight and win in the first major regional conflict and then swing its forces to the second region. But would we send forces into the Middle East in the first place knowing that we could not reinforce Korea? Many anticipate that the Korean peninsula standoff will be resolved, peacefully or otherwise, within a decade. But do we start cutting before then?

And what if the war in the first region is not the expected short conflict of one to six months? Even our current force would be hard-pressed to field the troops necessary to support a battle in a second theater if we were fighting a prolonged battle in the first one. . . .

Figure 3. Objectives-Based Command Structure Force Assignments

	First Theater Command	Second Theater Command	Special Operations Command	Stability Enhancement Command	Strategic Defense	Totals (Active/Reserve†)
Active/Reserve Army Divisions	4/6	4/6	N/A‡	2/2		10/14
Navy Carriers	6	6				12
Marine Corps Divisions	1	1		1/1		3/1
Active/Reserve Air Force Fighter Wing Equivalents	6/4	6/4				12/8
Nuclear Forces					All	

† No effort is made here to delineate between Reserve and National Guard units.

‡ Special Operations Forces (which are organized below division-size units) are not indicated.

Figure 4. Theater Command Readiness

Command	First Theater Command				Second Theater Command			
Force Type	Active		Reserve		Active		Reserve	
Readiness	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*	*Low*
Army Divisions	4		1	5		4		6
Marine Corps Divisions	1					1		
Air Force Fighter Wing Equivalents	6		4			6		4
Navy Carriers	3	3				6		

mobilize forces for the second, and in any case the response would not have to be prompt in both areas. It is generally assumed that failing to respond immediately could ultimately cost more lives during a counteroffensive because our forces would face a well entrenched enemy with prepared defenses. In the Korea scenario (where U.S. forces are deployed) this is a valid concern. But in the Persian Gulf War the United States did not launch a counterassault against Iraq until about six months after the capture of Kuwait. Coalition losses were extraordinarily low, partly a reflection of the delayed action that allowed for a more massive, coordinated counterstrike, stronger allied contributions, and wider domestic and foreign support.[8] With more realistic assumptions about warning and mobilization, we could maintain forces slated for a second MRC at a lower state of readiness.

This command concept could easily accommodate a reduced readiness second MRC force. One option would be to assign either largely Reserve component or "stood down" active forces to a second theater command (STC) with responsibility for a second MRC, or to sustain operations by a first theater command (FTC) in a first MRC if no second contingency arose. A more promising option would involve rotating the readiness status of the two commands about every six months. Figure 4 shows their readiness status over the first six months under such a concept. Here the first command is fully prepared to deploy and fight anywhere in the world, while personnel from the second command, at a lower state of readiness, tend to administrative matters, leave, school, etc. Should a conflict arise, the command that is "off" would have to achieve full readiness perhaps within 90 days of warning of a contingency in any theater.

Under this concept, each command has six assigned Reserve component divisions from the Army. Moreover, when a command is "on," each division is rotated into full operational status for a month, ensuring complete integration and participation should a conflict arise. This would need to be coupled with better measures, such as tax relief, to offset productivity losses by employers. In lesser contingencies, the command that is "on" could deploy joint task forces (JTFs) tailored to the contingencies. With fewer total months in

Securing landing zone, Cobra Gold '95, Thailand.

U.S. Air Force (Val Gempis)

55th Signal Company, Combat Camera (Brian Thompson)

Supporting Joint Endeavor at Brcko Bridge, Bosnia.

a highly ready mission-capable status, and fewer months of training, there may be notable savings without undue risks to the Nation. But we retain a two-MRC strategy and maintain forces adequate for prolonged combat or to better counter (and deter) some potential new superpower.

Since FTC and STC could deploy anywhere in the world, this command structure implies increased CONUS basing, expanded prepositioning, improved strategic lift, lighter and more lethal forces to improve mobility and reduce lift requirements, better C^3I, and greater dependence on air assets for initial stages of a campaign. Forward bases would be maintained together with extensive equipment sets. A small permanent cadre for administration, security, and maintenance would be retained at those bases. For training and deterrence, operational forces smaller than those forward deployed in Europe or Korea would be rotated for several months at a time from the first or second theater command. When deployed unaccompanied in TDY status rather than on a permanent basis, forward stationing costs could be reduced markedly. CONUS-based forces would be redeployed among bases in the United States to ensure optimal transit times to various theaters. SPACECOM, TRANSCOM, and integration/training functions could be handled as indicated above by subunified commands, as joint centers serving all commands, or by existing or restructured defense agencies.

this command structure implies lighter and more lethal forces to improve mobility

FTC and STC commanders and staffs would have to maintain expertise on areas around the world. But since their focus would be almost exclusively on four or five areas (Korea, Southwest Asia, Bosnia, etc.) that are most likely to threaten major conflicts, they could focus more on their primary mission than an existing regional CINC whose attention spans numerous countries within his AOR. First and second theater CINCs, especially during down cycles, could concentrate diplomatic leverage on critical allies. Another feature of an "on-off" concept for both commands is that it will be very difficult to extend operations for a given unit belonging to one theater command when the entire command is preparing to shift to lower readiness. Therefore this concept imposes an institutionalized solution for many OPTEMPO and PERSTEMPO problems experienced today. Interestingly, a six-month "on-off" approach could also work under a regional construct, whereby a central U.S. command or similar organization is assigned most forces in peacetime. These forces would then be supplied to other regions as needed but in nonconflict periods would essentially be split in two with their readiness cycled.

Another advantage of this concept is its recognition of the increasing importance—as well as the inevitability—of peace operations. These operations currently cost significantly more than five years ago but add less than 2 percent to defense spending. They are a prudent investment in terms of preventing conflicts that could cost thousands of lives and billions of dollars. A "stability enhancement command" would operate a relatively large Army force of roughly two active and two Reserve component division equivalents along with perhaps two amphibious readiness groups and two active and two Marine Corps Reserve expeditionary units for presence and peace operations (and finely tuned for related missions such as combatant evacuation). By placing peace operations under a distinct command, we can no longer pretend that this mission will go away. We will have to accept the reality that it will continue to constitute a large portion of our day-to-day operations. We would potentially save money on many units under this command by avoiding higher training costs associated with advanced warfighting skills, many of which would not be necessary for the stability enhancement mission. We also could separate personnel with a "safety on" peacekeeping mindset from those soldiers with the warrior spirit required by other unified commands.

Organizationally codifying the strength of peacekeeping forces would establish a maximum force level that the Nation is willing to deploy for such operations. These forces would exceed the

capabilities of most militaries of the world and almost certainly the commitment to peace operations by any other country. If pressed by allies to deploy more, the President, under this force structure, could clearly demonstrate that we have the largest dedicated peacekeeping force, and that drawing units temporarily from other commands for surges in peace operations will directly denigrate the ability of lending commands to support missions more vital to our national interests.

Although it demands an initial investment in both lift and prepositioned stocks, this concept could achieve significant savings through reduced command overhead, lower readiness costs, and smaller forward presence outlays. Quantifying potential savings requires further study. Combined with other savings brought about by adopting new technologies that will allow us to deploy fewer systems without reducing our capabilities, implementation of badly needed management reforms in DOD, elimination of service redundancies, and cuts in excess infrastructure, we should be able to afford a two-MRC force well into the 21st century.

Notions of a smaller, purely regional or functional command structure are, needless to say, dramatic and presented here as food for thought. But changes in the international environment and the Armed Forces have also been dramatic. The ability to adapt quickly to new circumstances is a hallmark of great military organizations but the antithesis of large bureaucracies. In an era when innovative decisionmaking and information systems allow corporations to adjust structures rapidly and fluidly to meet emerging market demands, military command structures also need to quickly and agilely adapt to new challenges in the international security environment. **JFQ**

NOTES

[1] For an excellent history of the unified command plan, see Office of the Chairman, Joint Chiefs of Staff, *The History of the Unified Command Plan, 1946–93* (Washington: Government Printing Office, 1995).

[2] The five regional commands include the Atlantic, Pacific, European (Europe and most parts of Africa), Central (Middle East and Southwest Asia), and Southern (Central and South America). Functional commands support specific military functions rather than a geographic region. The four functional commands are Space, Special Operations, Strategic, and Transportation. Although specified commands headed by a single service (which existed prior to 1993) might be useful under future organizational schemes, they are not discussed.

[3] In fact, joint force integration and training commands similar to ACOM (such as Strike Command and Readiness Command) operated during the Cold War, and U.S. Strategic Command would have made eminent sense during that period.

[4] These structures are similar albeit not identical to those included as "starting point" concepts in the FY97 National Defense Authorization Act provision on UCP review.

[5] West Coast forces are not currently assigned to ACOM. A similar concept for a central joint force integrator/trainer was instituted through Strike Command (1962–71) and Readiness Command (1972–87). With fewer forces but continued global operations, such an entity makes more sense today than in the past.

[6] National military strategy sets out how, when, where, and why U.S. military resources are deployed in support of national security strategy, which embodies broad political, economic, and military objectives to protect and advance vital U.S. interests.

[7] I have explored the planning assumptions of the Bottom-Up Review in much more detail in "Challenging the Assumptions of U.S. Military Strategy," *The Washington Quarterly*, vol. 20, no. 2 (Spring 1997), pp. 115–31.

[8] U.S. losses were also low because our forces fought at night in open terrain, confronted a tactically unsophisticated opponent suffering from low morale, maintained ample forward basing, and benefitted from Iraq's decision to forgo use of biological or chemical weapons.

Joint Doctrine Development: Overcoming a Legacy

By DOUGLAS C. LOVELACE, JR., *and* THOMAS-DURELL YOUNG

Over the past decade jointness has become a paean in the quest to improve the effectiveness of the Armed Forces. Congress emphasized its importance by passing the Goldwater-Nichols Act which increased the power of the combatant commanders in chief (CINCs), made the Chairman the principal military adviser to the National Command Authorities (NCA), and assigned him specific responsibilities for strategic planning as well as doctrine and training. In addition, the Joint Chiefs of Staff lost their baronial influence, and the Joint Staff was reoriented to serve the Chairman.

Yet this seminal legislation has not overcome all the institutional impediments to effectively employing joint forces. One remaining problem in implementing joint doctrine is caused largely by a flaw in the strategic planning process. The lack of direct linkage between the strategic direction of forces and operational planning for their actual employment hampers development of integrated joint doctrine. Because of this disconnect between national military strategy and key joint planning documents, the services have been denied the greatest incentive for embracing joint doctrine.

joint doctrine is as vital to operational objectives as strategy is to national strategic goals

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The Centrality of Doctrine

Joint doctrine is as vital to operational objectives as strategy is to national strategic goals. Operationally, it links what must be accomplished to the available (or required) tools by providing the nexus between national military strategy and the conduct of military operations. Joint doctrine should thus derive from, *inter alia*, national military strategy and thereby help implement it.[1]

Just as objectives and resources are rationalized in national military strategy, joint doctrine guides the employment of joint forces and military capabilities to achieve strategic and operational objectives. Accordingly, the joint operation planning and execution system (JOPES) requires that theater operation plans conform to established joint doctrine.

Joint doctrine also has a collateral value. It enables senior leaders to determine the sort of capabilities needed by CINCs and ensures effective and efficient application of those capabilities to specific objectives.[2] Moreover, it informs senior civilian leaders and government agencies about how they may expect the Armed Forces to be employed and thus illuminates force strengths and limitations and consequent risks of using force. It may serve a similar purpose for our allies and coalition partners, which is particularly apropos when establishing a U.S. position for developing multinational doctrine. It also forms part of the rationale for force structure.

Goldwater-Nichols assigned responsibility for developing joint doctrine to the Chairman. More generally, he is also responsible for developing

joint professional military education (PME) and training policies that are influenced by documents such as the universal joint task list (UJTL). In addition, he can prescribe how training will be evaluated and shape joint exercises by stressing specific areas of interest.[3] In the case of PME, he can influence the nature and amount of joint matter taught at service colleges.[4] These education and training responsibilities thus provide opportunities for advancing the implementation of joint doctrine.

The impact of joint doctrine extends beyond the employment of joint forces to virtually all the Chairman's strategic planning responsibilities, to include soliciting, evaluating, integrating, and setting priorities for CINC requirements. Discharging this duty forms the basis of the Chairman's advice to the Secretary of Defense on the needs of CINCs. Moreover, the Chairman advises the Secretary on the extent to which service program recommendations and budget proposals conform to priorities in strategic plans and CINC requirements. This advice may include recommendations that differ from those submitted by the services.

The Chairman logically must consider existing and emerging joint doctrine in establishing and integrating priorities for the requirements of CINCs and in assessing service programs. Therefore, if elements of service programs do not conform to the doctrine, the Chairman, as principal military adviser to the Secretary and President, may recommend program adjustments.

The triennial report on the roles, missions, and functions of the Armed Forces also contains recommendations influenced by joint doctrine. A case in point was the proposal by one former member of the Joint Chiefs that the battlefield be partitioned and each section assigned to a service or functional component command.[5] The intent was to assign the rear and close battles mainly to the Army and the high and deep battles primarily to the Air Force. This proposal, inconsistent with joint doctrine, would have transferred close air support to the Army and deep interdiction—now shared by all services—primarily to the Air Force and, to a lesser extent, to the Navy. Therefore, the Army would have lost its high and deep battle systems and the funding to acquire and maintain them. The rejection of this proposal suggests that service-initiated changes to roles and functions that do not conform to joint doctrine will not be favorably considered.

Common doctrine is also crucial since it provides principles to orient and focus education and training. For example, the universal joint task list is guided by joint doctrine. Armed with this list, joint force commanders perform focused mission analysis and develop joint mission essential task lists (JMETL). They can then plan training programs to meet JMETL requirements. During joint training, commanders can rely on shared doctrine to frame broad tasks and suggest measures of effectiveness. The influence of doctrine on training thus improves warfighting capabilities.

If joint doctrine is indeed vital, how can its development and implementation be enhanced? The solution to this problem is complicated by the disparate ways the services define and perceive joint doctrine and in the individual service roles in developing it.

The Development Process

A good deal of current joint doctrine has not met the needs of the services and combatant commands. Just over two years ago the Chairman stated that joint doctrine "is not well vetted . . . well understood. It is certainly not disseminated out there and is almost never used by anyone."[6] One weakness in the development process has been the requirement to build consensus among the services by removing portions of draft doctrine pubs which are vigorously challenged by any service. Thus, much joint doctrine can reflect the lowest common denominator, which results in imprecise, confusing, or contradictory concepts. Internal inconsistencies are therefore common. Key factors in this disharmony are differing service views of doctrine and the compartmented way it is developed. Moreover, no effective vehicle for cross-checking the consistency of doctrine pubs is applied.

Historically, the services have not agreed on what doctrine means, let alone its purpose. The dictionary defines it as "something that is taught, held, put forth as true, and supported by a teacher, a school, or a sect; a principle or position or the body of principles in any branch of knowledge." Joint Pub 1-02, *Department of Defense Dictionary of Military and Associated Terms*, renders it as: "Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgement in application." However, to understand the meaning of doctrine one must examine various service perspectives.

Doctrine has long been seen as essential by the Army. It is regarded as the basis of current operations and organization as well as the engine of change. According to Field Manual 100-1, *The Army*, it is pervasive, encompassing the service ethos, professional qualities, esprit de corps, legal basis, readiness, principles of war, and military operations other than war. While accepting the definition found in Joint Pub 1-02, the Army appears

***USS Wasp* transiting Norwegian fjord for Strong Resolve.**

U.S. Navy (Franklin P. Call)

C–130 approaching Tuzla air base.

U.S. Air Force (Jeffrey Allen)

to interpret "judgement in application" more liberally than the Chairman.[7] The Army's doctrine preceded joint doctrine, and experience in developing and using it made that service a prime contributor to joint doctrine. Thus other services may feel the Army exerts inordinate influence in the development process.[8] Given the maturity of the U.S. Army Training and Doctrine Command and the relative inexperience of the doctrine centers of the other services, such leverage is plausible.

The Navy only lately has begun to formalize and institutionalize doctrine.[9] This situation can be partially attributed to culture, especially a focus on technology and independent operations. Traditionally the Navy saw doctrine as procedures for applying capital systems. Naval Doctrine Publication 1, *Naval Warfare*—which provides the foundation for a body of doctrine as yet largely unwritten—defines doctrine as *conceptual*, that is, "a shared way of thinking that is not directive." Though the Navy believes that doctrine should bridge national military strategy and service tactics, techniques, and procedures, a Navy doctrine-based culture will not arise overnight.

Marines consider doctrine a philosophy of warfighting. At higher levels it does not provide specific techniques, but instead broad concepts and values. In fact, Fleet Marine Force Manual 1, *Warfighting,* reveals that Marine Corps doctrine sets forth a particular way of thinking about war and of fighting, a philosophy of leading marines in combat, and a mandate for professionalism and a common language. Overall, the Corps views doctrine as a codification of its essence rather than a body of knowledge to be consulted in preparing for and conducting war.

Marines landing at Kauai, Hawaii, RIMPAC '96.

U.S. Navy (Jeffrey S. Viano)

U.S. Army

101st Airborne in Saudi Arabia.

Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, defines doctrine as "what we hold true about aerospace power . . . a guide for the exercise of professional judgement rather than a set of rules to be followed blindly." It suggests that doctrine development and revision is a living process. This concept can be explained in terms of a culture that stresses technologically advanced systems and their improvement through enhanced human contributions. As a result, the Air Force sees weaponry as a defining feature of war and has developed a lexicon that includes system-oriented terms such as sortie generation, weaponeering, and target servicing. This central focus on systems and adopting the latest technology results in an orientation on system characteristics and, in effect, a subordination of doctrine and operational procedures.[10]

effective joint doctrine can only be effectively developed using a top-down approach

Clearly, significant differences exist among services, and their doctrines are developed to meet their unique needs. Joint doctrine, on the other hand, must transcend individual perspectives and provide an overarching approach to warfare that integrates all individual service contributions. Whereas service doctrine can arguably be developed via a bottom-up approach, effective joint doctrine can only be effectively developed using a top-down approach.

Development of joint doctrine has been subjected to these differing service views. When the director for operational plans and interoperability (J-7), Joint Staff, decides on behalf of the Chairman that some new aspect of doctrine is needed, he publishes a program directive assigning a lead agent to manage its development. This agent, usually a service, writes or directs the writing of a draft pub and can inject parochial views into the process. Whether or not such views survive the coordination phase, they encourage adversarial relations among the services. And the impulse to settle contentious issues at the lowest possible level coupled with a natural reluctance to submit them to the Chairman for adjudication further runs the

risk of developing doctrine that is not only diluted but also biased in favor of the lead agent.

Joint doctrine development can be contentious for another reason. The services disagree on the very role of doctrine. The Air Force, for instance, completely agrees with the proviso found in Joint Pub 1-01 that "joint doctrine will be written to reflect extant capabilities." Therefore, from its perspective, technological advances will dictate new or revised doctrine. The Army, alternatively, believes doctrinal concepts should be engines of change, heavily influencing decisions on systems and capabilities. The lack of a common perspective on the nature of joint doctrine and the potential for enduring service parochialism, combine to constrain the doctrine development process.

Criticism of this process leads individual services to feel unobligated by joint doctrine even though it emerges from a consensus. Furthermore, the ability of the Chairman to direct that joint doctrine be followed is limited since by law he has no command authority and the Joint Staff is prohibited from exercising executive authority. Yet this inability to assure effective development and uniform application of doctrine has serious negative implications. One example was the downing of two Army Blackhawk helicopters in 1994 by Air Force F–15s which cost the lives of everyone on board. Recognizing that teamwork might have prevented this tragedy, the Chairman directed that "immediate and serious attention" be given to applicable joint doctrine.[11]

Strategic Planning

To the extent that joint doctrine corresponds to strategic planning, incomplete planning can inhibit its development and implementation. Thus it should not be surprising that both problems share a common solution. Joint Pub 1 notes that "though neither policy nor strategy, joint doctrine deals with the fundamental issue of how best to employ the national military power to achieve strategic ends." Militarily, national strategic ends can be realized through strategic and operational objectives. To be effective, joint doctrine should help translate national and theater level strategies into operationally useful methods.

National-level strategic concepts in strategic plans should guide the disciplined development and implementation of joint doctrine. But absent these strategic plans, current joint doctrine can, at best, be only loosely connected to national military strategy. Developing national strategic plans would permit strategic guidance, as first expressed in the form of national security strategy and then by national military strategy, to be better conveyed to service chiefs and CINCs as confirmed strategic concepts. This top-down approach should provide specific guidance for developing more useful and accepted joint doctrine for conducting operations and rationalizing types, numbers, and balance of forces. A process that integrates strategic planning with doctrine development would better conform to the intent of Goldwater-Nichols. And in an era of penury, such reforms would assist NCA in assuring Congress that an effective and efficient defense capability is being pursued.

While it is clear that national military strategy has little operational use until it is refracted through the prism of a coherent national military strategic plan, it is equally clear that joint doctrine should be based on specific strategic concepts found in such a plan. The *raison d'être* of national military strategy is to translate strategic guidance provided in national security strategy into military terms. By design, the unclassified, artistically arranged, and widely distributed national military strategy serves more as a military policy and public information document. It communicates the views of the Chairman on the relevancy of military power to national security strategy as opposed to delving into the specifics needed to achieve particular objectives.

Such national military strategy lacks adequate guidance for developing specific objectives, let alone the means of achieving them. Broad in scope and general in content, it is open to diverse interpretation.[12] Consequently, it is insufficient to guide doctrine development by itself. Title 10 of the U.S. Code requires the Chairman to prepare strategic plans that "conform to resource levels projected by the Secretary of Defense to be available for the period of time for which the plans are to be effective." These joint plans should conform to national military strategy and carry strategic direction to a greater level of specificity.

Title 10 indicates that the Chairman is required to provide "for the preparation and review of contingency plans which conform to the policy guidance from the President and the Secretary of Defense," a duty fulfilled by the joint strategic capabilities plan (JSCP). Although national military strategy is an effective vehicle for the Chairman in assisting NCA with strategic direction and JSCP impels CINCs to prepare contingency plans, neither fully responds to his duty to prepare strategic plans.[13] This void has a negative impact on the development and implementation of joint doctrine.

Strategic plans should enumerate and set priorities for specific strategic objectives, identify constraints, offer a strategy for securing such objectives, and be key in determining force capability requirements. They are envisaged to be comprehensive plans, based on a global perspective,

that contain strategic priorities and strategies for attaining them. They should set forth specific strategic concepts distilled from broad general concepts found in national military strategy. These concepts should guide joint doctrine development. Therefore, they must be specific if the derivative doctrine is to be useful in achieving the objectives outlined in both national security and military strategy.

An illustration is helpful. A *strategic concept* within the context of current national military strategy is overseas presence. Together with power projection, this concept facilitates the three components of the strategy: peacetime engagement, deterrence and conflict prevention, and fighting and winning wars. Such strategy provides general definitions of overseas presence and peacetime engagement. It also describes them in terms of where forces are currently located and why they are there. For peacetime engagement, it delineates both the forms it may take and why it is important. The strategy is educational in that it provides broad concepts and components of national military strategy and why they are vital. But there is nothing in current national military strategy to guide defense planners on *how* to apply overseas presence to achieve the appropriate type and amount of peacetime engagement in the right priorities and to promote U.S. interests, given military capability (resource) limitations, for the period under consideration.

current joint doctrine has limited value because it caters to the lowest common denominator

Therefore, the value of strategic plans to joint doctrine development would be considerable. Not only would they provide specific strategic concepts on which to base doctrine; more critically they would serve as a contextual framework for developing doctrine. In addition, strategic plans would provide a unifying mechanism for the services, CINCs, and defense agencies. This would:

- legitimize the preeminence of joint doctrine over individual service doctrines
- result in more rationalized service doctrines
- produce a more coherent body of joint doctrine
- increase service predilection to implement joint doctrine.

In summary, neither national military strategy nor JSCP meets the requirements of strategic planning as found in Goldwater-Nichols. The development of strategic plans would among other things allow all the services to reach a common understanding of strategy and unified commitment to a body of joint doctrine that would better support that strategy. Moreover, the applicability and implementation of doctrine at theater level would be enhanced because contingency plans and joint doctrine would be consistent with an overarching strategic plan. Thus such a document would introduce new rigor into strategic and operational plans, doctrine development and implementation, exercises, and ultimately operations.

The current body of joint doctrine has limited value because it caters to the lowest common denominator and is only weakly linked to national military strategy. From the foregoing analysis, it is clear that joint doctrine can be improved by closer bonding it to national military strategy through a national military strategic plan. It is also evident that since developing joint doctrine is a statutory responsibility of the Chairman, it need not base its legitimacy on service consensus.

The Chairman has taken major steps to address these problems. Foremost was the release of *Joint Vision 2010* and the task given to the Joint Warfighting Center (JWFC) to add operational definition to the vision. If the flesh put on the vision's skeleton effectively links national military strategy and joint doctrine, the coherence and value of doctrine will increase. Even if *JV 2010* was not intended to be the type of strategic plan described above, it may serve an important surrogate purpose with regard to joint doctrine, pending the development of a national military strategic plan.

In addition, JWFC is assuming a more active role in managing joint doctrine development. It established policies to improve joint scrutiny of draft doctrine publications which should inhibit parochial influence. Moreover, the center fosters a joint perspective from the outset and ensures that it is carried through into publication. In that way, JWFC can eliminate inconsistencies among doctrinal pubs and reduce problems in the current process.

As the Chairman and his various agents exert a more assertive role in doctrinal development and service roles are further subordinated, the unifying effect of joint doctrine will more closely follow the intent of Congress as expressed in the Goldwater-Nichols Act. Contradictions between service and joint doctrine will be resolved and the fundamental purpose of doctrine clarified. While there has been marked progress in developing joint doctrine over the last decade, more needs to be done. Recent initiatives and others under consideration promise to enhance its quality and increase its acceptance. **JFQ**

NOTES

[1] Joint Pub 1, *Joint Warfare of the U.S. Armed Forces*, p. vi; Joint Pub 0-2, *Unified Action Armed Forces (UNAAF)*, p. vi; Joint Pub 3-0, *Doctrine for Joint Operations*, pp. I–1 through II–3.

[2] While acknowledging the proviso in *Joint Pub 1-01* that "joint doctrine will be written to reflect extant capabilities," we consider it to be simplistic and superficial with respect to the proper relationship between joint doctrine and force capability development. Obviously, DOD would not develop capabilities and then try to ascertain how best to use them. Alternatively, the joint doctrine development process should consider potential force capability development options. Calling for joint doctrine to reflect extant capabilities ignores the dynamic and reciprocating link between joint doctrine and force capability development. See Joint Pub 1-01, *Joint Publication System Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program*, p. I–2.

[3] For a critical review of the management of joint training, see U.S. General Accounting Office, *Military Capabilities: Stronger Joint Staff Role Needed to Enhance Joint Military Training,* Report NSIAD–95–109 (Washington, 1995).

[4] CJCS Instruction 1800.1, *Officer Professional Military Education Policy* (1996), pp. 2–3 and enclosure C.

[5] Bradley Graham, "Air Force Chief on Attack: McPeak Boldly Criticizes Other Services' Roles and Plans," *The Washington Post,* October 24, 1994, p. 1; see also, Merrill A. McPeak, briefing to Roles and Missions Commission, Washington, September 14, 1994.

[6] John Boatman, "The Jane's Interview," *Jane's Defence Weekly*, vol. 22, no. 23 (December 10, 1994), p. 32.

[7] On behalf of the Chairman, the director of the Joint Staff issued a memo on joint doctrine dated July 28, 1994 to the service chiefs and CINCs. It directed that the doctrinal concept found in the preface of each joint pub be changed to read: "The guidance in this publication is authoritative; as such, commanders will apply this doctrine (JTTP) except when exceptional circumstances dictate otherwise." In a September 15, 1994 memo, the commander of U.S. Army Training and Doctrine Command (TRADOC) stated that the Chairman's "views are consistent with the Army view that doctrine is authoritative, but requires judgement in application." While acknowledging doctrine as authoritative, TRADOC appeared to be endorsing the exercise of "judgement and application" for situations with less than "exceptional circumstances."

[8] In a memorandum dated February 8, 1995 to the Commission on Roles and Missions of the Armed Forces, Maj Gen Charles D. Link, USAF, registered his concern that "joint doctrine is largely dominated by outmoded perspectives which handcuff airpower to the constrained mission of land component commanders." Moreover, an analysis of Joint Pub 1-01 (appendix H) reveals that the Army has been designated as the lead agent significantly more often than the Air Force and almost twice as often as the Navy and Marine Corps combined.

[9] James J. Tritten and Gary W. Anderson, "Lessons from the History of Naval Doctrine Development," *Marine Corps Gazette,* vol. 78, no. 10 (October 1994), pp. 50–52. In response to criticism that the Navy's use of doctrine has been spotty at best, the Naval Doctrine Command has issued a number of historical documents on past or current doctrine. This revisionism was not very convincing.

[10] Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: The Johns Hopkins University Press, 1989), pp. 18–30.

[11] In a July 28, 1994 memo (CM-378-94) to service chiefs and combatant commanders in chief, the Chairman called attention to command and control for joint air operations and JTTP for close air support.

[12] See Douglas Lovelace and Thomas-Durell Young, *U.S. Department of Defense Strategic Planning: The Missing Nexus* (Carlisle Barracks, Pa.: Strategic Studies Institute, 1995).

[13] Chairman, JCS, *Instructional Joint Strategic Capabilities Plan,* MCM-126-92 (1992). This document contains a précis of national military strategy, offers general planning guidance to services and CINCs, assigns specific and regionally focused planning tasks to CINCs, and lists and apportions forces for planning. Of particular note is what JSCP does not provide. It neither assigns missions nor furnishes national level integration of planning efforts of the various CINCs. It thus cannot be considered a strategic plan in the context of section 153, Title 10, U.S. Code.

I believe joint doctrine development is proceeding in the right direction. However . . . we must continue to improve it so that it educates our joint force commanders in ways which allow them to best extend the battlefield in time, space, and purpose by leveraging the synergy of all available attack means.

—George A. Joulwan

Deep Operations, Command and Control, and Joint Doctrine:

AV–8B hovers above *USS Constellation.*

U.S. Navy (Mario P. DeAngelis)

TIME FOR A CHANGE?

By GORDON M. WELLS

Command and control (C^2) of deep operations has become an area of intense debate among the services. The responses to the *Report of the Commission on Roles and Missions of the Armed Forces* and a subsequent study on the deep attack/weapons mix are just two examples of how fiscal needs for efficiency are being addressed across services vis-à-vis the conduct of deep operations. This debate is taking place not only inside the Beltway but in discussions where unified command and service representatives seek to develop doctrinal guideposts for how joint force commanders (JFCs) will conduct deep operations in the future.

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For instance, during a joint doctrine working group meeting on Joint Pub 3-09, *Doctrine for Joint Fire Support*, the only agreed definition for joint fire support (not yet approved) was:

Joint fire support can include the lethal or destructive operations of close air support (by fixed or rotary wing aircraft), naval surface fire support, artillery, mortars, rockets, missiles, as well as nonlethal or disruptive operations such as [electronic warfare]. *Joint fire support does not include air interdiction, counter air, or strategic attack.*

This is a narrow definition intended, in part, to instruct us on what joint fire support is not: "air interdiction, counter air, or strategic attack." These are areas covered elsewhere, for example in Joint Pub 3-56.1, *C^2 for Joint Air Operations*, 3-03, *Doctrine for Joint Interdiction Operations*, and Joint Pub 3-01, *Joint Doctrine for Countering Air and Missile Threats*. Unfortunately, these and other volumes on joint tactics, techniques, and procedures (JTTPs) are extremely contentious. Such issues are being tackled by both the joint doctrine working party and the joint working group processes. Nonetheless it is a slow undertaking.

it is becoming increasingly clear that existing doctrine does not adequately address joint C^2

Other contentious issues regarded as deep operations matters include a possible joint force fires coordinator position, the organization and function of the Joint Target Coordination Board, and questions on dividing battlespace—with some airmen suggesting that the commander in chief, United Nations Command (CINCUNC), model should be applied to joint doctrine to make it less land centric. The common thread running through these issues is joint force command and control. Moreover, it is becoming increasingly clear that existing joint doctrine does not adequately address joint C^2. We need an overarching, universally understood model for how JFCs exercise the vital C^2 function. However, two issues must be addressed.

First, the decibel level of this interservice debate is drowning out the most important voice: the joint commander tasked with conducting the next Desert Shield/Desert Storm, Provide Hope, or Joint Endeavor. Service views, though critical to debate, often are based more on programmatic perspectives than on working together to meet JFC needs. Second, we must address the changing nature and use of combat power. In contingencies across the operational spectrum, battlespace is becoming less linear and combat power is employed with less symmetry. Moreover, information age technologies add another factor in developing a viable joint force C^2 framework.

Where are JFCs?

In the post-Desert Storm era, there are many doctrinal advocates firmly convinced of their views. As with any believers, they hold many opinions based on seemingly undeniable elements of truth.

Army. Convinced that the U.S. Central Command (CENTCOM) joint force air component commander (JFACC) during Desert Storm and the Air Force as a whole reneged on prior agreements on battlefield air interdiction sortie allocation, the Army position has typically oriented on greater control of air sorties to shape the battlefield.

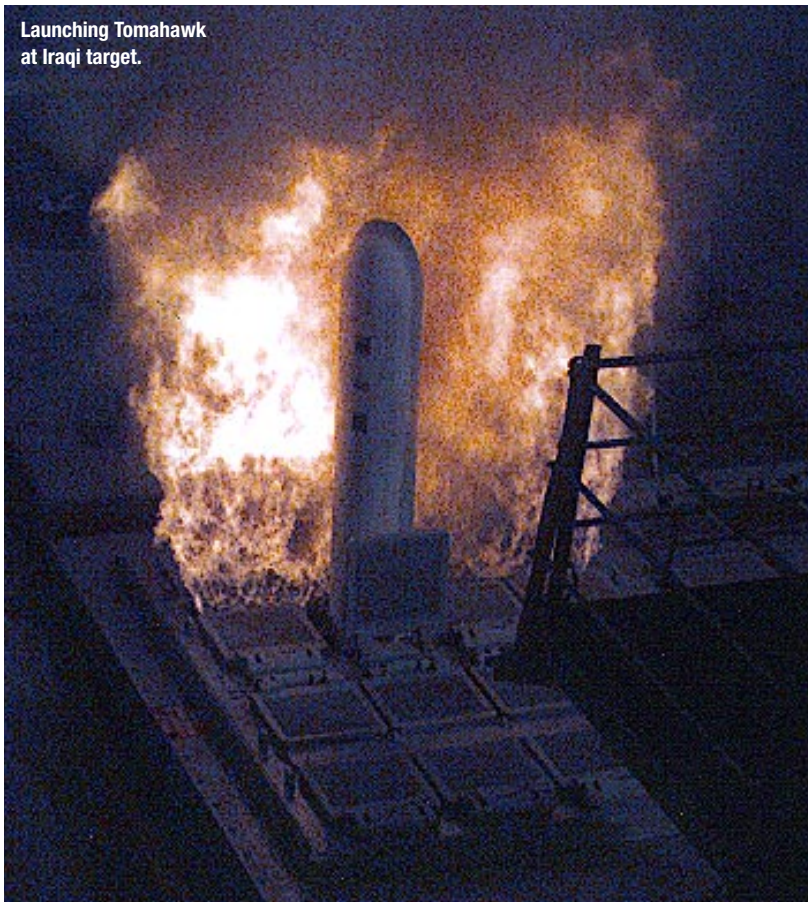
Navy. Traditionally the most independent service, given its autonomous role of sea control going back to Corbett and Mahan, the Navy holds firmly to its prerogative of maintaining control of adequate air assets for fleet protection.

Marine Corps. Believing they have been historically left in the lurch by the Navy regarding naval gunfire support, the Marine Corps has long codified the air-ground task force concept which guarantees aerial artillery support independent of naval assets.

Air Force. Convinced that there is a need to centralize airpower planning, the Air Force position has been to develop the JFACC concept to ensure that the use of available airpower does not revert to a Vietnam-Tactical Air Command view when it was seen as little more than aerial artillery in support of the Army.

Who is correct? Everyone. Few will argue the doctrinal basis for shaping the battlefield to attack an enemy in depth so that victory, almost always ultimately ratified in conventional combat operations by land forces, is achieved at least cost. Likewise, history has proven that piecemeal application of airpower is nothing less than a violation of the principle of mass. Further, JFACC came into its own during Desert Storm as the previously distinct worlds of Strategic Air Command and Tactical Air Command were merged and air planners developed and executed viable theater air operations. Similarly the Navy, particularly as it transitions from its traditional blue water focus to working the brown littorals, has a very real and perhaps increasing need to ensure fleet protection. As for the Marine Corps, one need only read the history of the Pacific Theater and the *Mayaguez* incident to understand the reluctance to give up its air assets. Thus there are multiple pragmatic and emotional bases for various positions across all services.

A central problem with the planning/execution of deep operations debate is that, whereas each service enjoys powerful representation via



Launching Tomahawk at Iraqi target.

U.S. Navy (Wayne W. Edwards)

its doctrine development agencies and staffs, future JFCs have no formal advocate. Individual service positions on acquisition and budgets and service views on doctrinal issues are often closely identified. Though it is probably unrealistic to expect otherwise, doctrine development should be kept as intellectually pure as possible.

We must move beyond the histrionics of today and think in terms of the doctrine that JFCs will really need in the future. Budget battles generally affect each service in the mid to short term. But how joint doctrine is designed has consequences for conducting operations, directly translating into indeterminate costs of time, resources, and lives.

Battlespace and Combat Power

The burden on doctrine writers is staying sufficiently rooted in the present while gauging the future. As Michael Howard noted, "What matters is to prevent . . . being too badly wrong . . . to get it right quickly when the moment arrives." Therefore we must be able to read the tea leaves to discover the trends that will impact on future warfare. Three trends likely to affect the future of operations are increasingly asymmetric applications of combat power, growing nonlinearity of the battlefield, and the additional element of so-called "third wave" or information age warfare.

Throughout history warfare was largely symmetrical. Similar forces confronted each other: armies against armies and navies against navies. With the advent of airpower and the global reach of seapower, this changed. For example, there was a forward leap in the asymmetrical application of military power during World War II in the southwest Pacific. General MacArthur's renowned island hopping would not have been possible without Admiral Halsey's amphibious landings and General Kenney's vertical envelopments. Naval and air arms supported ground forces to take key land areas while simultaneously gaining and maintaining air and sea control.

During the Cold War in the central region of Europe, geography and land force technology limited the Alliance to a largely linear layer cake defense of NATO. Nevertheless, we refined the asymmetric application of airpower with follow-on forces attack and joint precision interdiction. The subsequent development of airpower and smart weapons as force multipliers was validated in the Persian Gulf so that now the application of military power is largely asymmetric. Each service plays both direct and indirect roles in achieving control of the land, sea, and air.

Moreover, as combat power is applied with added asymmetry and reach, the battlespace in which it is employed has become increasingly nonlinear. The air attacks on Iraq during and after Desert Storm and NATO air operations in support of the U.N. Protection Force in the Balkans are more recent examples. This trend is likely to increase as information age technologies enable us to disperse forces and mass them from across a distributed battlespace.

Nevertheless, we must be careful of jumping on the information age bandwagon. As stated above, so-called "third wave warfare" is a trend, but it is an additive. In U.S. European Command (EUCOM), for example, current and near term threats are primarily "second wave" industrial age threats in Europe and the Middle East. In Africa, we still face many "first wave" agricultural age threats. Thus, we must be able to combat all three types as strategic interests dictate.

Accordingly, the way deep attack is defined also is evolving. As battlespace becomes more nonlinear, attacking an enemy in depth has less to do with physical reach than with attacking key functions simultaneously from the tactical to strategic level. This requires a range of capabilities to detect

and deliver ordnance and electrons accurately on target in a timely manner. The objective is functional paralysis, placing an enemy in tactical, operational, and ultimately strategic dilemmas.

Operations are Operations

Applying combat power asymmetrically demands increased flexibility by warfighters. We must abandon all vestiges of traditional set-piece, von Schlieffen-like thinking and lean toward more dynamic cycles in which various combat and support functions occur and are linked and synchronized both horizontally and vertically. As demonstrated at the Army National Training Center, battle and play books unnecessarily limit the sort of thinking needed in a tactical environment. The same principle applies on the operational and strategic levels of war.

applying combat power asymmetrically demands increased flexibility by warfighters

This is why General George Joulwan, the commander in chief, U.S. European Command, frequently reminds his staff and component commanders that "operations are operations." His concern goes well beyond the way in which war and operations other than war are separated doctrinally. All operations should be approached in an institutionally similar manner. Just as we err in distinguishing how to conduct various types of war and peace support operations, we are mistaken in separating the planning and the conduct of close and deep operations. Whereas once battlespace could be chopped up and the pieces delegated to various components, we can no longer afford the luxury of this practice as battlespace becomes less linear and combat power is applied less symmetrically.

Moreover, as JFCs engage in more peace operations it appears that the differences among close, deep, and rear operations are fading. Thus the tendency among EUCOM planners is to view operations more as a function of the asymmetric application of power, generally unconstrained by traditional battlespace frameworks. In part this is because the asymmetric application of power is not necessarily limited to the military, particularly as we engage in more interagency operations such as the 1994 relief efforts in Rwanda.

An obstacle to clear-headed discussion lies in a lack of agreement and understanding about joint planning and execution. Who plans and executes what? Are there links between campaign planning/execution and service/functional component planning/execution? JFACC purists may feel that anything that flies in theater should be controlled by a JFACC. Yet the land component school may object since it is their blood which ultimately will be shed on the final objective and thus argue that the only JFACC role is that of administrative sortie provider. Neither position is correct, and unfortunately JFCs lack clear guidelines for reconciling them. The joint community needs a model for planning and executing campaigns and subordinate operations.

Planning and Execution

Although some work has been done to fill this void, it has tended to flow from bottom up rather than from top down. Doctrine writers have expanded the scope of some extant pubs to plug the holes in otherwise missing doctrine. This usually results in protests from the services which suspect that lead agents are codifying parochial service positions in joint doctrine. Moreover, in no area has this been more true than deep operations and the operational employment of fires.

Joint Pub 3-01, *Joint Doctrine for Countering Air and Missile Threats*, and Joint Pub 3-09, *Joint Fire Support*, are cases in point. In 1995 the Army nonconcurred in Joint Pub 3-01—which was being developed by the Air Force—before its release for staffing. Likewise, the Air Force nonconcurred in Joint Pub 3-09—which was being developed by the Army—since its inception six years ago. This sort of reaction will continue until overarching doctrine is developed that defines the planning/execution processes and the functions which occur on the joint force level. Moreover, it must define how they are linked on both the JFC and the service/functional component levels.

As a point of departure, it is useful to examine the cycles, functions, and linkages common to campaign planning and execution.

Cycles. JFCs will largely focus on two cycles in campaign planning and execution: current and future operations (plans). In peacetime one could argue that there is another cycle, training or exercise planning and execution. Nevertheless, these processes tend to be cyclic and generally define the "rhythm" by which commanders and their staffs perform.

Functions. Within each cycle, JFCs and their staffs must plan, synchronize, and integrate various combat and support functions both vertically and horizontally. The universal joint task list is a starting point for defining operational-level functional areas or operating systems: conducting operational movement and maneuver, developing operational intelligence, providing operational support, employing operational firepower, exercising operational command and control, and providing operational protection.

U.S. Air Force (Paul R. Caron)

F–15 loading munitions for NATO airstrike.

Linkages. An equally important third element common to campaign planning and execution is the series of linkages between current and future operations across the six operational functions. Moreover, such processes also occur on the service/functional component levels, albeit with varied degrees of emphasis and application. Thus there will be horizontal as well as vertical linkages.

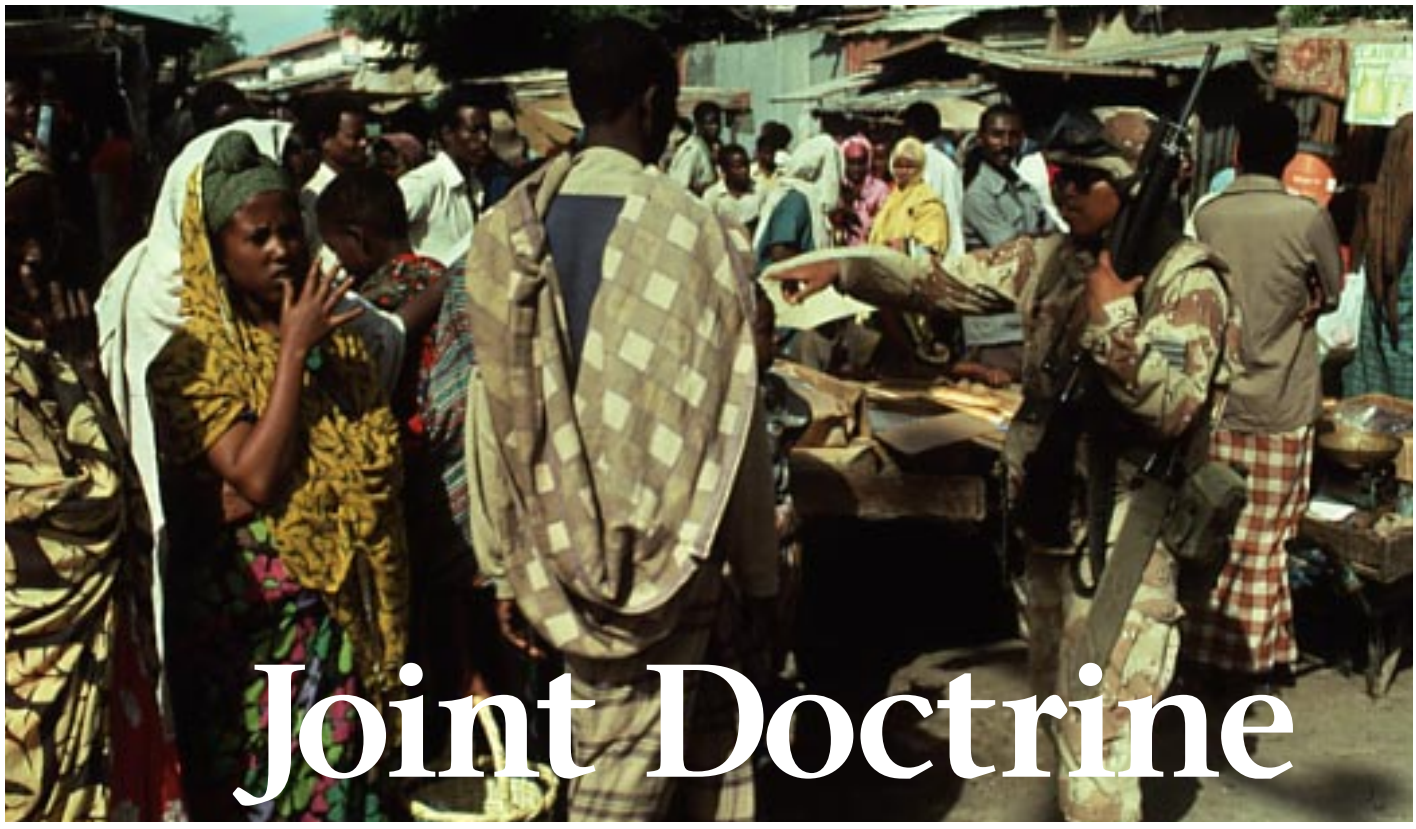
Battle rhythm. This concerns how JFCs and their staffs execute current and future operations cycles across operational functions and how these processes are linked both horizontally and vertically.

This does not mean current joint doctrine is inadequate. Joint Pub 3-0, *Doctrine for Joint Operations*, clearly identifies the designated JFC as responsible for planning and executing deep operations. Further, it provides a flexible framework for JFCs to organize and execute deep operations, one which all combatant commands and services agreed upon two years ago. This doctrinal structure allows for operations to be designed in traditional, set-piece, linear battlefield frameworks such as CINCUNC employs in Korea and asymmetrical operations executed in a nonlinear battlespace such as we now see in Bosnia.

Nevertheless, there is room for further doctrinal refinement. Increasingly, the battlefield is becoming nonlinear and combat power is being used asymmetrically. Moreover, information age technologies will only accelerate such trends. Thus commanders and their staffs must ensure that their approach to planning and executing operations becomes more dynamic. We must move away from battle and play books to a universally understood battle rhythm focused on cycles (current and future operations) and combat and support functions.

Equally important, we must develop a common understanding of how operations today are linked horizontally to operations of the future across various functions and vertically to both higher and service/functional component planning and execution cycles. Thereby JFCs and their staffs will learn to extend battlespace in time, space, and purpose by using all available means.

The model described above simply outlines those issues to be addressed in the evolution of joint force C^2 by all parties concerned. The ability to command and control joint operations in the future depends on it. More important, the well-being of our soldiers, sailors, marines, and airmen who are called upon to execute those operations demands attention to this key issue. **JFQ**



U.S. Navy (Terry Mitchell)

Securing Mogadishu marketplace.

Joint Doctrine and Post-Cold War Military Intervention

By STEVEN R. DRAGO

Whereas for generations the primary threat facing the United States was confrontation with the Soviet Union, today there are two major concerns. First, in contrast to a monolithic adversary, current threats are multifaceted and require proficiency across a range of military operations other than war (MOOTW). Second, as overseas presence decreases, various operations will require that the Armed Forces deploy with the militaries of other nations. However, it is not clear that available joint doctrine provides sufficient guidance for multinational MOOTW.

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Although operations in Haiti have met with success, serious setbacks have occurred during U.S.-led collective interventions in Iraq, Somalia, and Bosnia. These have raised questions about the adequacy of joint doctrine for meeting the challenge of multinational operations. Despite much analysis, there is no consensus on whether past setbacks were caused by shortcomings in doctrine on MOOTW or the failure to adhere to established doctrine for multinational operations. This article seeks to address this issue by reviewing recent military operations within the context of the principles outlined in Joint Pub 3-0, *Doctrine for Joint Operations*. This is critical because it is certain that we will continue to conduct such operations. The deployment of 20,000 Americans to Bosnia as part of the Implementation Force was a case in point.

Some critics claim that doctrine is too complex to be easily understood and applied. Others argue that there is no joint doctrine for fighting as part of a coalition. If these criticisms are correct, perhaps problems encountered during recent joint and multinational operations were caused in part by ill-defined or inadequate doctrine. But our current doctrine, it can be shown, was sufficient to have prevented the tragedies that have marred some recent U.S. military operations.

Doctrine provides valuable guidance for a wide range of joint and multinational MOOTW as reflected in the six principles that underpin our doctrine for conducting such operations. These are objective, unity of effort, security, restraint, perseverance, and legitimacy and are detailed in Joint Pub 3-0, the doctrinal "bible" for joint and multinational operations .[1]

nobody has been able to articulate attainable military solutions to thorny political issues

The former Chairman, General Colin Powell, described the first edition of Joint Pub 3-0 as an articulation of "the fundamental principles and concepts for joint and multinational operations, and it provides the basis for training our future leaders in joint warfare." As Powell explained, the list of principles offered "a common perspective from which to plan and operate and fundamentally shapes the way we prepare for conflicts and other operations." In the second edition, the current Chairman, General John Shalikashvili, noted that "this comprehensive document addresses almost every aspect of joint warfighting. . . . I challenge each commander to not only understand the principles of Joint Pub 3-0, but also to teach them to their subordinates."[2] Unfortunately, not all U.S.-led operations have followed their advice. This has resulted in setbacks that have impaired what have otherwise been successful combined operations.

Objective

The first principle of multinational MOOTW is to establish an explicit objective to provide adequate direction. Joint Pub 3-0 declares that "a clearly defined and attainable objective is critical when the United States is involved in [MOOTW]."[3] This is evident when one realizes how clearly-articulated humanitarian objectives provided direction for U.S.-led operations in Bosnia, Somalia, and northern Iraq. For example, in Bosnia where the primary objective was to provide humanitarian assistance, U.S. airdrops and U.N. convoys together delivered 272,000 tons of food and relief supplies in the winter of 1993. Likewise, Restore Hope broke the cycle of starvation in Somalia while Provide Comfort enabled 3.5 million Kurds to return home. Such accomplishments reflected clearly defined objectives associated with humanitarian operations. However, when each of the missions changed into nation-building, peacekeeping, or peace-enforcement operations, the specific military objectives became far more obscure and elusive.

Seizing ammunition in Somalia.

U.S. Navy (Terry Mitchell)

The use of force to achieve political stability for Kurds, Somalis, and Bosnians has proven difficult at best. The main obstacle is that nobody has been able to articulate defined and attainable military solutions to thorny domestic political issues. For instance, U.N. efforts to disarm Somalis and engage in deliberations on state-building with local factions failed to assuage clan warfare that continues to plague the region. Another case in point is Provide Comfort in northern Iraq where there is no immediate solution for safeguarding Kurds short of continuing U.S. and allied military protection. In short, it is not obvious how any external military can build a viable state where there is no consensus among local powerbrokers. On the other hand, at the moment it seems that Bosnia might be a success story for collective efforts at nation-building and peace-enforcement.

U.S. Air Force (Paul R. Caron)

UH–60s landing at Zakho, Iraq.

Whatever the outcome, it is evident that long-term political goals can be extremely difficult to translate into well defined and readily attainable military objectives. As these operations show, the challenge is to select appropriate military actions to meet political ends.

Unity of Effort

The second principle of MOOTW is unity of effort. Key to ensuring it are the concepts of close coordination among force components and working toward the same operational goals. Joint Pub 3-0 stresses that commanders should "seek an atmosphere of cooperation to achieve objectives by unity of effort."[4] Such harmony is essential to ensuring that allied forces work in a collective and not conflicting manner. This is evident in considering how a disunity of effort has threatened to damage the multinational attempts to assist the Kurdish refugees in northern Iraq.

Provide Comfort began as a tremendous joint and multinational success but later produced a colossal failure. Initiated in April 1991, the combined operation coordinated the efforts of forces from seven nations to protect and repatriate thousands of Kurdish refugees who had fled from Iraq and sought refuge in southern Turkey. Three years later, as U.S. forces sought to protect them from Iraq, Turkey launched a military campaign against Kurdish terrorism that reportedly resulted in the deaths of up to 15,000 Kurdish men, women, and children. The result of that independent military action is a disunity of effort that threatens the successful conclusion of the multinational operation which is now reportedly termed "Provide Discomfort" by some U.S. troops.[5]

The disunity of Provide Comfort is also evident in the lack of coordination between U.S. Army and Air Force assets, which caused one of the most tragic operational breakdowns in recent years. In April 1994 two Air Force F–15s destroyed two Army UH–60 helicopters over northern Iraq, killing 26 U.S. and allied military and civilian personnel. Both joint training and command, control, and communications procedures were found wanting. The Army pilots reportedly failed to transmit proper electronic signals that would have identified them to Air Force airborne warning and control system (AWACS) controllers as friendly. The AWACS crew that was controlling the fighters over Iraq failed to appropriately monitor the position of the helicopters, while helicopter recognition training was apparently minimal for the F–15 pilots.

Another factor may have been the presence of Turkish fighters. Evidence suggests that the helicopters were forced to delay their sorties to accommodate Turkish activity in the area on the day of the shoot-down. It was reported that "had the helicopters left earlier, they would have missed the U.S. fighters altogether."[6] While Joint Pub 3-0 calls for a united effort, this tragedy highlights what can happen if coordination and unity of effort in a joint or combined operation are lacking.

Security

The third principle for conducting MOOTW is security. Joint Pub 3-0 emphasizes the need to "never permit hostile factions to acquire an unexpected advantage." The key is to ensure "force protection against any person, element, or group hostile to our interests."[7] Although the rationale for this principle is conspicuous the procedures to ensure protection of U.S. forces in Bosnia and Somalia were flawed. In any event, they certainly fell short of efforts envisioned in Joint Pub 3-0. The result was 18 dead and 75 wounded American soldiers during a failed raid on October 3, 1993 in Mogadishu and an Air Force F–16 downed by a Serb SA–6 missile on June 2, 1995 in Bosnia. These painful mission outcomes were due to operational breakdowns in security.

During testimony before the Senate Armed Services Committee, the commander of U.S. commando forces in Somalia revealed that he had requested AC–130 gunships to provide air cover for the Rangers sent to capture warlord Mohammed Farah Aideed.[8] Moreover, the commander of U.S. forces requested tanks and armored personnel carriers for the operation. However, because of political sensitivity over the American force level

in Somalia, Secretary of Defense Les Aspin denied the requests even though they would have afforded greater protection for our troops.[9] This degraded the ability of the Rangers to protect themselves and violated the principle of security.

It is also possible that a security lapse figured in the shoot-down of an F–16 over Serb-held territory in Bosnia. On June 2, 1995, U.S. intelligence forces that supported Deny Flight obtained evidence of an SA–6 antiaircraft missile battery being operated by Serb forces near Banja Luka.[10] The principle of security would demand that pilots be made aware of every serious threat as soon as it becomes known. But that did not happen. U.S. forces failed to take actions that could have prevented the shoot-down. Had better communications existed for relaying intelligence in a timely manner, American pilots would likely have avoided the threat area. The principle of security was well established—just not adequately followed.

many have argued that Americans should not get involved without a definite exit strategy

Restraint

The fourth major principle of multinational MOOTW is restraint in applying military force. As Joint Pub 3-0 warns, "use of excessive force could adversely affect efforts to gain or maintain legitimacy and impede the attainment of both short- and long-term goals."[11] Somalia showed what can happen when that principle is violated. The attempt to disarm heavily-armed clans was bound to have adverse effects on both short-term military operations and long-term political objectives.

During the initial stages of the U.S.-led U.N. intervention it was clear to most of the world that American and allied forces were there to provide humanitarian relief and peacekeeping. Little opposition was encountered since the mission benefitted all Somalis. However, that mission later turned to disarmament of the warlords and their clans. When local factions refused to cooperate with what they regarded as increasingly violent efforts to disarm them, they attacked U.N. forces. In other words, the less we observed the principle of restraint, the more opposition we encountered from armed clansmen. As Joint Pub 3-0 anticipated, the lack of restraint in these disarmament and "state-building" operations decreased the legitimacy of U.S. forces both in theater and at home.

Perseverance

The fifth principle for successful MOOTW is perseverance. Joint Pub 3-0 stipulates that "peacetime operations may require years to achieve the desired effects. . . . The patient, resolute, and persistent pursuit of national goals and objectives, for as long as necessary to achieve them, is often the requirement for success."[12] Conversely, lack of perseverance may result in the failure to find solutions to political problems such as instituting a viable Somali state or Kurdish autonomy. History shows that it is possible to stop starvation in the short run. However, to solve long-term problems that cause it requires a commitment that was absent in Somalia. U.S. failure to persevere contributed to the inability to achieve the long-term objective: solving the underlying infrastructure problems that had produced mass starvation.

Many have argued that Americans should not get involved without a definite exit strategy. But we cannot always determine how long forces will be needed. For example, fifty years after World War II there are still over 100,000 troops in Europe. Likewise, more than forty-five years after North Korea attacked the South some 37,000 U.S. troops remain stationed on the peninsula. Sometimes we must be willing to endure for the long run. When we are not, we are less likely to achieve our political objectives. When the President originally pledged to remove all U.S. troops from Bosnia within a year, it was hard to see how they could achieve the principle of perseverance. In a sense, one principle of MOOTW was violated before the first U.S. soldier arrived in Bosnia.

Legitimacy

The sixth major principle is legitimacy. This demands sustaining the willing acceptance of local groups "to make and carry out decisions."[13] Legitimacy in Somalia meant a willingness on the part of the various factions to accept U.N. policies, something that was lost once our troops used force to impose a solution. Restore Hope sought to end a famine that threatened hundreds of thousands of Somalis. It was successful until the United Nations initiated a violence-marred effort to convert an anarchic patchwork of ancient tribal rivalries into a viable state. For example, U.S. forces delivered over 92,000 tons of supplies to end the starvation and began the infrastructure-rebuilding needed for long-term solutions to problems that had resulted in more than 350,000 deaths. However this achievement was overshadowed by American losses: 44 killed and 175 wounded.[14] That revealed how a loss of legitimacy can change a successful mission into a failed intervention.

U.S. Air Force (Richard M. Hellman)

Evacuees from Liberia arriving in Sierra Leone.

When a military organization uses force to determine control of territory, the operation will likely be viewed as illegitimate by local factions who stand to lose power or prestige. It is not clear whether U.S. forces considered the principle of legitimacy in targeting Aideed's forces. However, it is clear within the context of Joint Pub 3-0 that disarming hostile groups violated that principle. In other words, the decision went against basic doctrine on MOOTW.

The point is not to fault decisionmakers and planners who are responsible for complex and difficult missions. Rather, it is to determine whether current doctrine provides sufficient guidance to prevent the sort of operational tragedies experienced in the past. Setbacks during recent multinational military operations other than war occurred when operational decisions violated one or more of the six key doctrinal principles in Joint Pub 3-0.

If joint doctrine is adequate for multinational MOOTW, we must ask why some recent military decisions have violated basic doctrinal principles. One strong possibility is a disjuncture in the doctrine-decisionmaking nexus. Doctrine may not be playing the role that the Chairman envisioned. We must improve how joint commanders and planners apply doctrine to complex problems. As General Shalikashvili has said, commanders must use "these battle-tested tenets. Otherwise, we will not have real doctrine."[15]

The sort of tragedies that tainted recent operations can only be prevented by incorporating joint doctrine into the decisionmaking process for all those responsible for national security policy. Future involvement in military operations other than war must adhere to the six principles found in Joint Pub 3-0. Applying this doctrine we may avoid repeating the tragic lessons of the past. **JFQ**

NOTES

[1] Joint Pub 3-0, *Doctrine for Joint Operations* (1993), pp. V-4, ii.

[2] Joint Pub 3-0, *Doctrine for Joint Operations* (1995), see introduction.

[3] Joint Pub 3-0 (1995), p. V-2.

[4] Joint Pub 3-0 (1995), p. V-2. Much discussion of the six principles in this edition is taken verbatim from the first. Doctrine that could have precluded major shortcomings therefore existed before an operational tragedy occurred.

[5] Vago Muradian, "Is U.S. Intelligence Being Misused?" *Air Force Times*, December 12, 1994, p. 20.

[6] Ibid.

[7] Joint Pub 3-0 (1995), p. V-2.

[8] Michael R. Gordon, "U.S. Officers Were Split on Botched Somali Raid: A Request for More Airpower Was Refused," *The New York Times*, May 13, 1994, p. A-6.

[9] Rick Maze, "Lawmakers Accuse Aspin of Betraying U.S. Troops," *Air Force Times*, November 8, 1993.

[10] Scott O'Grady, *Return with Honor* (New York: Doubleday, 1995), p. 196.

[11] Joint Pub 3-0 (1995), p. V-3.

[12] Ibid.

[13] Ibid., p. V-4.

[14] "Goodbye Somalia: Did the Mission Succeed?" *Air Force Times*, April 4, 1994.

[15] Joint Pub 3-0 (1995), p. V-3.

Water purification plant, Zaire.

DOD (R.D. Ward)

Warfighting and Peace Ops:

Do Real Soldiers Do MOOTW?

By RICHARD J. RINALDO

One major challenge facing the development of doctrine for peace operations is the tension between the principles of war and military operations other than war (MOOTW). This difficulty was addressed by the Army in Field Manual 100-23, *Peace Operations*, a capstone manual which states that the principles of war should not be overlooked in planning peace operations because the possibility of combat does exist, especially in peace enforcement. Joint doctrine more specifically pronounces that the principles of war "generally apply to MOOTW." In addition, the approach to training for such operations found in joint and service doctrine stands on a pillar of training for war that allows commanders to adjust to operational conditions, including peace operations. Moreover, doctrine does not deal with the planning process for MOOTW any differently than it does for war. Nonetheless doctrine highlights differences between warfighting and peace operations by focusing on the application of the principles of MOOTW in peace operations.[1]

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Doing MOOTW

Recent though not unprecedented use of the Armed Forces in disaster relief, humanitarian assistance, and peace operations has offered insights into conducting war on a complex battlefield of the future. Military operations in the information age are likely to encounter close scrutiny while ethnic friction, refugee populations, and nongovernmental and nonmilitary agencies continue to come into play. Enemies may be transnational criminal gangs or rogue actors instead of organized military formations. Such considerations must be fully incorporated in the mainstream of doctrine rather than being relegated into some new category of military operations.

The *Report of the Commission on Roles and Missions of the Armed Forces* expressed similar reservations about setting off such operations in a separate category because it "ignores the full range of approaches to resolving conflicts by assuming that military forces exist only to 'fight and win the Nation's wars.'" Warfare is not necessarily a worst-case anomaly that necessitates radically different overarching doctrine than that required for peace operations, disaster relief, or humanitarian assistance operations. This point should be weighed in developing the next iteration of Joint Pub 3–0, *Doctrine for Joint Operations*, a keystone of the joint doctrine hierarchy. Distinctive aspects of some operations could still be covered in separate publications. Overarching doctrine—basic guidelines for military operations—would then become uniform. Joint Pub 3–07, *Joint Doctrine for Military Operations Other than War*, would be rescinded and not replaced, any separate principles of MOOTW would vanish, and the principles of war would be applied in every operation with the required judgment and skill.

Some, especially those who worked to get recognition for MOOTW, would argue that this approach suggests a return to a past when missions such as peacekeeping were viewed as "nontraditional" and outside the realm of military concerns. By contrast, the "traditionalists" might see it as watering down warfighting. "Real soldiers don't do MOOTW" could be their battle cry. But this point is moot, given that peacetime engagement and conflict prevention are components of national military strategy. These components subsume most operations now known as MOOTW, as does *Joint Vision 2010*, which portrays a military that is "persuasive in peace, decisive in war, and preeminent in any form of conflict."

Waging Peace

In 1992, two well-known defense analysts argued that "Yugoslavia and Somalia, as well as the Haitian refugee problem, are unmistakable indicators that the U.S. military will likely be much more engaged in the future in waging peace." They affirmed a need to overcome the reluctance of the services to prepare for such operations and criticized claims made by some senior officers "that such missions are 'nonmilitary' or that they taint the 'warrior ethic.'"[2]

U.S. Army (Kevin Thomas)

Hurricane Andrew, Miami.

U.S. Navy (Robert Scroggin)

Uphold Democracy, Haiti.

Such claims can be dismissed as part of the Vietnam legacy—emotional arguments against becoming entangled in protracted wars and internal conflicts. To be sure, this concern is rooted in an isolationist streak in our national psyche that comes up whenever our forces, notwithstanding their all-volunteer status, are involved overseas. One example was the reaction to the emergency deployment readiness exercise in Honduras following the Sandanista incursion into that country in March 1988. Protests reminiscent of the 1960s appeared almost instantly. Similar objections were raised in the case of Bosnia. This concern may be driven by the demographics of post-industrial societies which have smaller families. Contrasted with social conditions in the past when larger families were the norm, one pundit has concluded that "the loss of a youngster in combat, however tragic, was therefore fundamentally less unbearable."[3]

The fear is that U.S. involvement in such conflicts will generate unacceptable casualties and turn into quagmires. Policymakers think that long-term commitments and mounting casualties sap resolve on the home front. Many who experienced or have studied the Vietnam War would agree. Senior military leaders who served in that conflict remember its impact on morale. All these factors figured in analyses of the military profession in the 1970s and 1980s, as did subsequent disasters such as Desert One, the hostage rescue operation in Iran, and the Marine deployment to Lebanon.

peacetime engagement and conflict prevention are components of national military strategy

Secretary of Defense Caspar Weinberger expressed his well known views on this subject in a speech before the National Press Club in 1984 which posed criteria for applying military power. Among them are support of public and Congress, a threat to vital national interests, clear political and military objectives, and exhaustion of all nonmilitary options. Weinberger insisted these tests "are intended to sound a note of caution—caution that we must observe prior to committing forces to combat overseas."[4] He had studied the post-war period and realized that "gray area conflicts," small clashes short of total war, would be the source of threats to national interests in the future.

A few years earlier the U.S. Army Training and Doctrine Command (TRADOC) started work on a host of operational concepts. As preliminary ideas about warfighting, they were indicators of a search for new doctrine.[5] Prophetically, one paper issued at this time declared that peacekeeping was a legitimate area of military study.[6] It also debated moving toward transnational and pan-national forces. A decade later Russians are deployed in Bosnia with the U.S contingent in the Stabilization Force and the U.S. Army Peacekeeping Institute is active at the U.S. Army War College.

Publication of the *Joint Low-Intensity Conflict Project Report* by TRADOC in 1986 was key to recognizing new ways to cope with a new era. TRADOC also had joined with Tactical Air Command to establish the Army-Air Force Center for Low-Intensity Conflict (CLIC). Moreover, the small wars operational research directorate was set up at U.S. Southern Command. TRADOC also had formed the low-intensity conflict cell in the Combined Arms Center at Fort Leavenworth. Congress enacted legislation that established the post of assistant secretary of defense for special operations and low-intensity conflict and the U.S. Special Operations Command. More recently, deputy assistant secretaries for peacekeeping and peace enforcement policy and for humanitarian and refugee affairs have been named within DOD.

From this doctrinal and organizational activity emerged highly mobile, tailored forces that are capable of being deployed anywhere and anytime. At the same time LIC–MOOTW imperatives have been introduced into doctrine, training, and readiness. Presidential decision directive 25 on reform of multinational peace operations, issued in May 1994, refined results of a review begun in the Bush administration by extending and modifying the Weinberger criteria as factors to consider in specific cases when national power is applied in peace operations.

The military proved itself in Just Cause and Desert Storm. Yet these successes as well as some aspects of operations in Somalia and Bosnia have tended to reinforce the Vietnam syndrome or, as one former official characterized this phenomenon, the "Vietmalia syndrome."[7] A corollary that calls for furthering our national interests by the use of decisive force also has been resurrected. Advocates of the latter approach are not engaged in foolishness, and their perspective should not be disregarded.

Whatever judgments have been reached on this subject, doctrine has not been silent about MOOTW, especially of late. Early work describing guidelines for limited wars and LIC are related and were important milestones in bringing attention to doctrine. Building on the rich experience of the military, guidance on LIC and the broader concept of MOOTW abound. In fact, a proliferation of doctrinal pubs on specific operations and related concerns, such as interagency and multinational coordination, is another indicator that we can go beyond the global categorization of MOOTW for the purposes of broad keystone doctrinal guidance.

55th Signal Company, Combat Camera (Glenn W. Suggs)

Combined U.S.-Russian patrol in Zvornic, Bosnia-Herzegovina.

Less extensive but no less confident than this doctrine are the critiques of it. One criticism is that creating a category of "conflict as a strategic environment distinct from war or peacetime [in terms of Army doctrine] is especially problematic. . . . Wasn't World War II a conflict? Is conflict war? Is conflict an operation other than war? Is conflict peace?"[8] Such categorization may reveal what another critic described as "mild schizophrenia about the nature of war" in general.[9]

Finding a Solution

The flawed distinction between the principles of war and those of MOOTW tends to inspire independence when interdependence exists and divergence where there is unity. Put more subtly, MOOTW may involve combat and require attention to the principles of war. But that commanders must apply two sets of principles in MOOTW which involve combat may be unnecessary.

A comparison of the principles of war and those of MOOTW (see the accompanying figure) in view of the proposition that the distinction between them is unnecessary and that the principles of MOOTW are superfluous is instructive. At first blush the comparison seems simple because the principles of objective and security are found under both categories. Unity of effort is also closely related to unity of command and may be regarded as a subset peculiar not only to MOOTW but also to other multinational and interagency operations. In such operations command arrangements are subject to a range of considerations that speak to its utility. Alternatively, one can discuss unity of effort as germane to the objective. Military forces further the objective by generating the ways and means to achieve it. However, as FM 100–23 indicates, although unity of effort is fundamental to coordinating with both governmental and nongovernmental agencies in MOOTW,

Comparing War and MOOTW

Principles of War	Principles of MOOTW
■ Objective	■ Objective
■ Offensive	■ Unity of Effort
■ Simplicity	■ Legitimacy
■ Mass	■ Perseverance
■ Maneuver	■ Restraint
■ Security	■ Security
■ Surprise	
■ Unity of Command	
■ Economy of Force	

the requirement to exercise unity of command within the military structure is not rescinded.

But what about those principles said to be new or unique to MOOTW? Is restraint any less critical in war? Is it related to the objective vis-à-vis post-conflict considerations? Does economy of force have clear application to MOOTW since there is a requirement for the judicious application of all force? Is restraint an aspect of economy of force in that sense? At the same time economy of force and security validate the value of tempering restraint with the imperative and nonnegotiable right of forces to protect themselves.

surprise can deter violations of the peace operations mandate, especially with displays of power

Is perseverance a separate fundamental geared only to peace operations or other MOOTW? Will commanders always need to balance their operational and tactical preference for results, using decisive force, with sensitivity for long-term strategic aims of a mission or mandate? Perseverance includes acknowledging both the constraints and opportunities of time and other resources. It also considers long-term goals and post-conflict endstates. It may also take the form of planning for the transition and termination of a military role and for continued appropriate support as other agencies assume major responsibilities. Paradoxically a notion of perseverance may contribute to avoidance of mission creep through early involvement of other agencies in planning.

And is the use of decisive force only overwhelming in the sense of its relation to specific circumstances for its use? Are decisive results a product of such use? General Colin Powell, then the Chairman, directly addressed this point in a 1993 speech:

Decisive doesn't mean overwhelming. Decisive means decisive. It means committing the force needed to achieve the political objective. If the political objective is very circumscribed, the force should still be decisive in order to achieve that limited objective.[10]

Powell's response also calls attention to the principles of economy of force and restraint. Because political constraints can limit the type and number of forces available to commanders, economy of force may be even more relevant in MOOTW. Likewise restraint in such circumstances translates into a limited use of force commensurate with the goals of the operation. Allied airpower used in Bosnia in 1995 to coerce compliance with U.N. mandates was another example of an effective use of force where the duration and targeting was strictly commensurate with limited goals—far short of the capability NATO could muster and sustain in a full-scale war.

The request for help from the Philippines when its government was threatened by a coup in 1989 highlights another dimension of the principle of legitimacy in MOOTW—the perception of an operation in the international or regional arena. Is legitimacy a principle that applies exclusively to MOOTW? Is it any less important in peacekeeping than war? Is it another aspect of the objective? Must the objective of a war be equally legitimate as a peace operation in the eyes of both American and foreign publics, and in many cases the public of affected nations? Can U.S. troops fight well in a bad fight? Was Just Cause so called as a public relations ploy or was it a clue to the real needs of conducting war? International legal scholars would no doubt maintain the requirements for both *jus ad bellum* (laws governing going to war) and *jus in bello* (laws governing the conduct of war). Legitimacy is nothing new.

In another recent MOOTW, Support Hope in Rwanda, the principal objective—to stop the dying—was facilitated by the principle of mass: providing clean water and water purification units. Likewise, during humanitarian assistance after Hurricane Andrew, mass—the rapid deployment of some 4,000 troops—was applicable to assuring victims of the government's commitment to help. There was also an element of surprise involved in these actions. And certainly in Haiti a credible threat of a massive U.S. assault and forced entry, which was almost executed, deterred opposition and precluded combat. Did this threat also serve as an element of surprise during the negotiations? As the current chief of staff of the Army noted, "Nothing helps focus the mind faster than knowing that the 82nd Airborne is en route and has a one way ticket to your location."[11]

Maneuver, with its focus on achieving a relative advantage over an enemy, could be part of a larger fundamental of all operations, gaining situational dominance or control no matter what the mission. Isn't military force inherently based upon discipline, organization, and capabilities—and ultimately the ability to exercise such dominance across the full range of operations?

Is the principle of the offensive thus also an aspect of such control and dominance since it is necessary to achieve decisive results and freedom of action? Does mass fit into this construct of control? The use of extensive economic aid, humanitarian assistance, or related initiatives could also serve to exert control and foster favorable outcomes.

Is surprise a means to shift a balance of factors in one's favor? It is, of course, problematic in many peace operations, especially in peacekeeping where transparency is the rule. Nevertheless it applies, for example, in retaining the ability to establish a mobile element of combat power that can immediately be deployed to points of con-

U.S. Air Force (Patrick Nugent)

Just Cause, Panama.

tention to control or influence events. Surprise in this context is related to massing forces or effects. Similarly surprise can be a factor in other displays of resolve or commitment to the purpose of peace operations. Examples are the use of unexpected aerial searchlights, bursts of artillery smoke, or illumination rounds to inform belligerent parties that the peace operations force is aware of prohibited activities. Surprise can deter violations of the peace operation mandate, especially with appropriate displays of credible power. Even unexpected but overt displays of such power in training may discourage unacceptable behavior.

Likewise, surprise is related to maneuver and initiative on all levels of warfare. Presenting strategic or operational level resources simultaneously and quickly and in a surprising way, such as in Haiti, is powerful. Such assets may be inconceivable to an enemy. Surprise can put an enemy off balance before it can react, or convince it that any martial response will be disastrous. In this context surprise should be defined in terms of timing the withholding, protecting, or disclosing of information about intent, resources, or activity to the advantage of national objectives. Just Cause proved that the joint team has the capability to achieve such surprise.

After reviewing the complex relationship between warfighting and peace operations, a blur of activity remains among the political, military, economic, and other elements of national power. In this environment the principles of war remain complete and enduring in providing fundamental guidelines for conducting military operations. They relate to the full range of operations. There is no need to view them in isolation from or in addition to principles of MOOTW. Peace and war are interrelated and inform one another. The simultaneous application of all the instruments of national or international power will increase the impact of U.S. involvement. Differences, especially when complementary, can enhance this relationship. Real soldiers do MOOTW—not just wars. **JFQ**

NOTES

[1] This article is based in part on discussion at a conference sponsored by the U.S. Army Training and Doctrine Command on April 11–12, 1995. For an account of this event, see *Summary Report of a Conference on Operations Other Than War* (Cambridge, Mass.: Institute for Foreign Policy Analysis, Inc., 1995).

[2] Don M. Snider and William J. Taylor, "Needed—A Pentagon Prepared to Wage Peace," in *The Washington Post*, August 9, 1992, p. C-1.

[3] Edward N. Luttwak, "Toward Post-Heroic Warfare," *Foreign Affairs*, vol. 74, no. 3 (May/June 1995), p. 115.

[4] Caspar W. Weinberger, "The Uses of Military Power," news release no. 609–84 (Washington: Office of the Secretary of Defense for Public Affairs, November 28, 1984).

[5] See John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973–1982* (Fort Monroe, Virginia.: Historical Office, U.S. Army Training and Doctrine Command, 1984), p. 44.

[6] William H. Zierdt III, "The First Earth Battalion Embryos: Let's Study Peacekeeping Forces" (Fort Monroe, Virginia: U.S. Army Training and Doctrine Command, n.d.)

[7] Richard Holbrooke quoted by Elaine Sciolino in "Soldiering on, Without an Enemy," *The New York Times*, October 29, 1995, p. IV-1.

[8] David A. Fastabend, "Checking the Doctrinal Map: Can We Get There from Here with FM–100–5," *Parameters*, vol. 25, no. 2 (Summer 1995), p. 42.

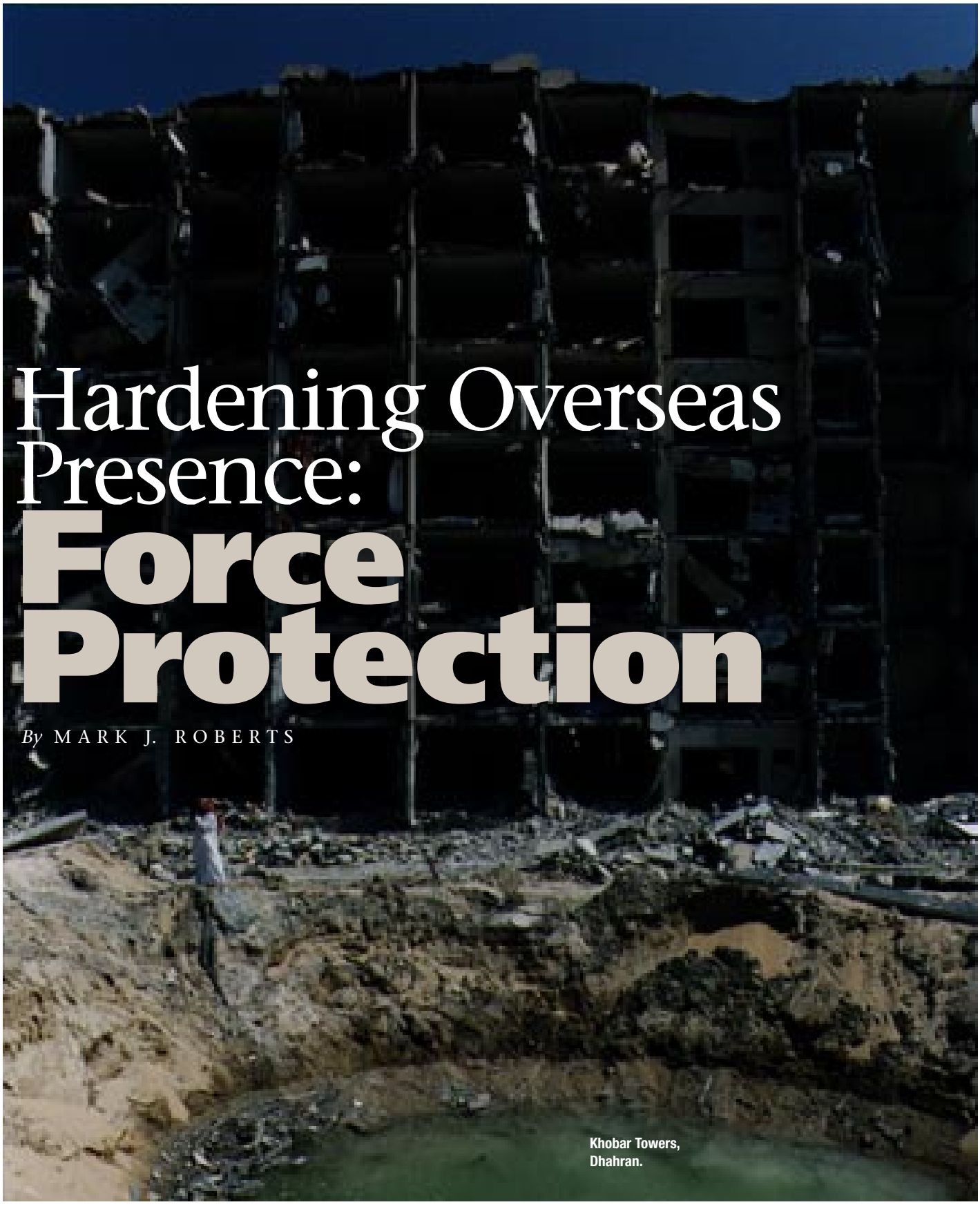
[9] Robert Killebrew, "Why War is Still war," *Armed Forces Journal International* (January 1995), p. 37.

[10] Colin L. Powell in Stephen Daggett and Nina Serafino, *The Use of Force*: *Key Contemporary Documents* (Washington: Congressional Research Service, 1994), pp. 9–15..

[11] Dennis J. Reimer, "The Army of the 21st Century," in an address presented at the Fletcher School of Law and Diplomacy in Medford, Massachusetts, on November 17, 1995.

Hardening Overseas Presence: Force Protection

By MARK J. ROBERTS



Khobar Towers, Dhahran.

U.S. Air Force (Sean Worrell)

Attacks on the Office of the Program Manager/Saudi Arabia National Guard (OPM/SANG) in November 1995 and on the Khobar Towers living compound in June 1996 forever changed the way in which the Armed Forces will regard terrorism in the Persian Gulf. Both bombings also served to prove that regional security dynamics can have an impact on U.S. forces deployed in the area.

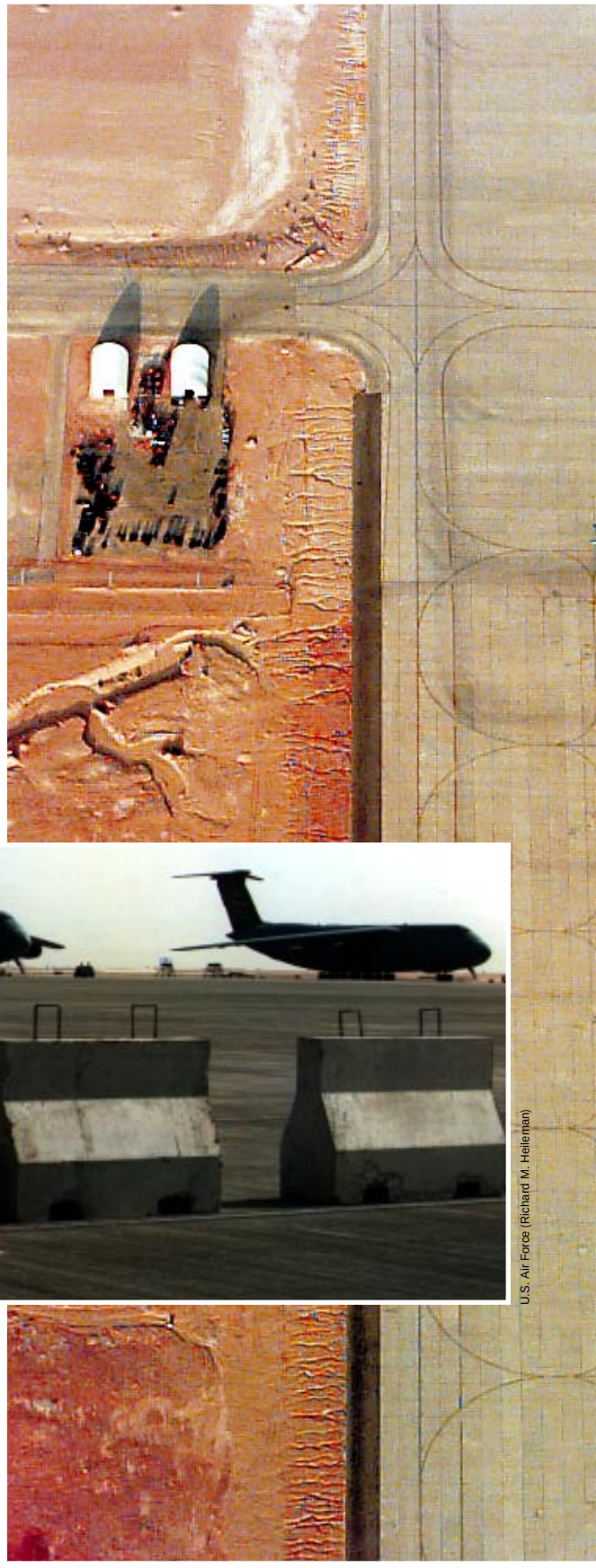
To deter and prevent hostile acts, air activities were moved from King Abd Al-Aziz air base in Dhahran and Riyadh air base to Prince Sultan air base adjacent to the city of Al Kharj, south of Riyadh. The rationale for this shift was to move forces from populated areas, where perpetrators of terrorist acts could easily disappear, to locales where space and terrain could be used to advantage.

The relocation to Prince Sultan air base means that many American personnel have traded in their furnished villas for tents and trailers which eventually will be replaced by modular housing. Similar security precautions took place in the United Arab Emirates and Kuwait as U.S. personnel moved from the Sahara Residency in downtown Abu Dhabi onto Al Dhafra air base outside the city and from the international airport at Kuwait City onto Ahmed Al Jabber air base in the desert.

space and terrain are not always viable force protection options

It should be noted, however, that space and terrain are not always viable force protection options and that various measures must be implemented in different locations, contingent upon the mission and its requirements. U.S. personnel who remain located in urban areas have attempted to disperse into the local environment (such as hotels and residential areas) to provide a more difficult target while simultaneously integrating and becoming better acquainted with local populations.

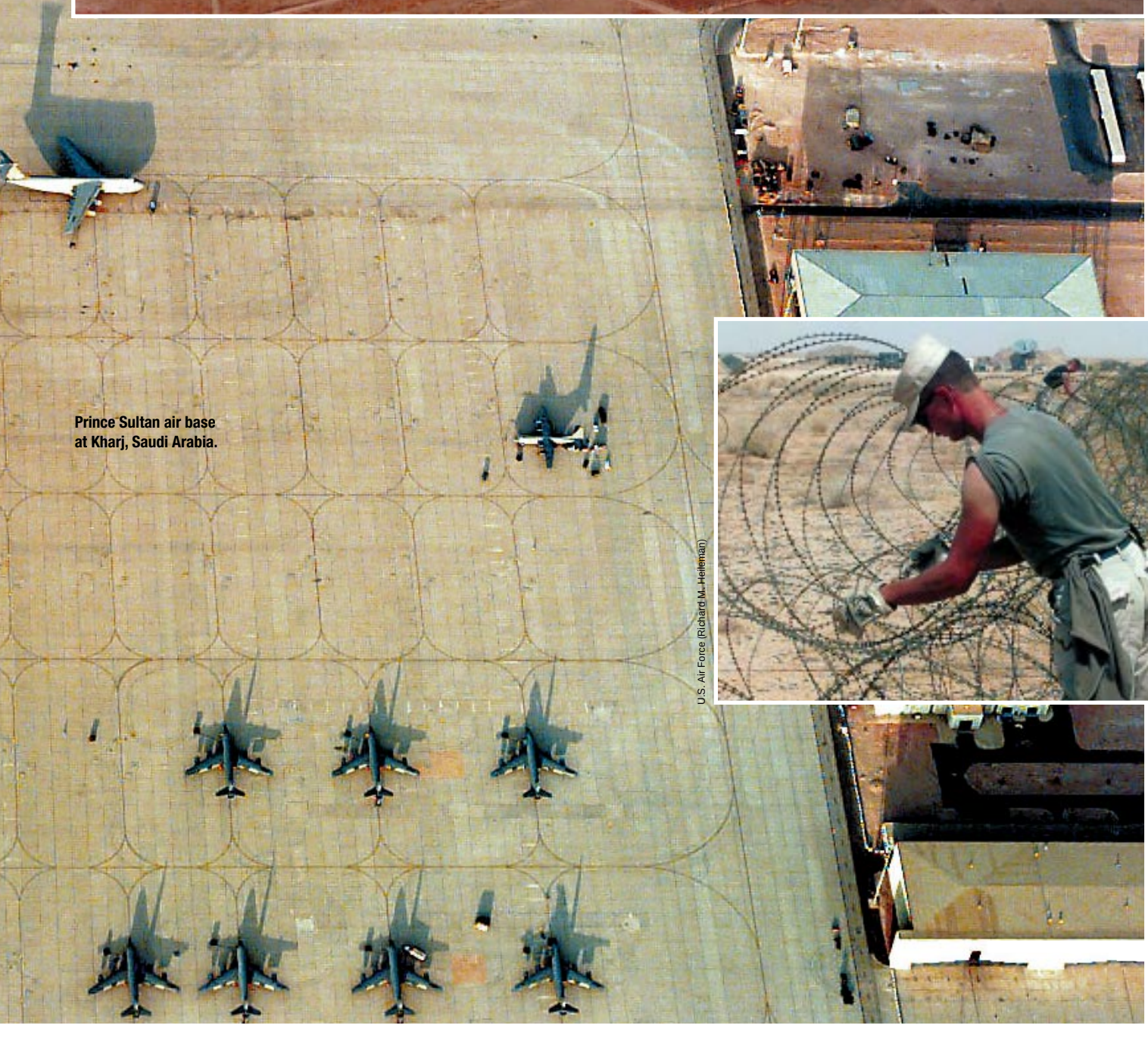
While these actions have been reactive in nature, proactive measures also have been taken. The bombings of the OPM/SANG facility and Khobar Towers had a number of ramifications for American officials involved in ensuring



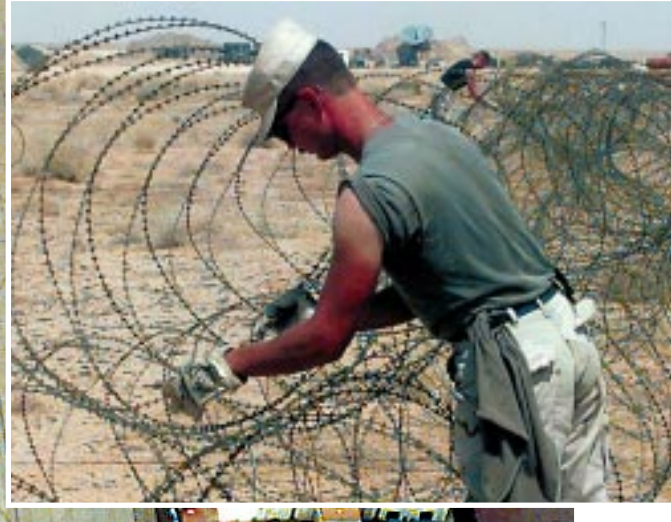
U.S. Air Force (Richard M. Hellelman)

Mark J. Roberts is a regional terrorism analyst with the Air Force Office of Special Investigations.

U.S. Air Force (David W. Richards)



Prince Sultan air base
at Kharj, Saudi Arabia.



U.S. Air Force (Richard M. Heileman)

U.S. Air Force (Sean Worrell)

U.S. Air Force (Richard M. Heileman)

Security measures at Prince Sultan air base.

the safety and security of deployed personnel. The most obvious was that the threat of terrorism in southwest Asia was evolving and that active measures were needed to indicate to both friend and foe that future acts of anti-U.S. terrorism would be neither easy nor without cost.

One issue that surfaced immediately was the requirement for a new approach to combating terrorism. Security measures had to be changed in the wake of the bombings; new paradigms had to be brought into play. Recognizing this issue, a Force Protection Directorate was created within Joint Task Force-Southwest Asia (JTF–SWA) in Riyadh. The overriding objective was to provide a focal point for force protection related issues as well as provide policy and guidance to field units to ensure that corrective measures for security vulnerabilities were implemented in a timely fashion. Although traditionally regarded as a wartime concern, force protection now has become so critical that all operational planning takes it into consideration.

force protection has arrived as an organizational concept at JTF level

The Force Protection Directorate was established to fuse counterintelligence and terrorism related threat data with the appropriate physical security defensive and offensive countermeasures. By analyzing information about the plans of potential terrorists, saboteurs, and spies, the directorate seeks to proactively counter the threat. This is accomplished through hardening likely targets and increasing overt and covert security measures to discourage and preempt terrorists from carrying out an attack.

The JTF–SWA commander, who also serves as Air Forces Central Command (CENTAF) forward commander, was initially granted force protection authority over Air Force personnel, facilities, and equipment in the U.S. Central Command area of responsibility. Force protection now has been divided along component lines. Moreover, policies are being developed to incorporate the findings of the Downing Commission and other recent assessments.

The position of deputy director for combating terrorism (J-34), Joint Staff, was established on October 15, 1996 as the DOD focal point for antiterrorism and force protection. His mission is to support the Chairman in combating terrorism—now and into the next century.

At present there is a great deal of emphasis on force protection which is evolving in terms of both concepts and implementation. Using a multi-disciplinary approach, force protection efforts are focused on a number of areas including counterintelligence, physical security, communications, explosives, information dissemination, and liaison. Although still in the developmental stage, this comprehensive approach holds a great promise for the conduct of operations and support activities.

In the wake of the recent bombings in Saudi Arabia, there have been renewed efforts by the Armed Forces to establish even closer liaison on security matters with host nation counterparts at local and national level. These contacts not only increase understanding between U.S. forces and other nations but also facilitate the exchange of threat information. The objective is to effectively cooperate with our host nation counterparts in safeguarding lives and resources.

Force protection has arrived as an organizational concept at the JTF level. The success of the Force Protection Directorate at JTF–SWA will determine to a large extent how it will be implemented in future deployments in other regions of the world. JFQ

General Robert Everett Cushman, Jr.

(1914–1985)

Commandant, U.S. Marine Corps

VITA

Born in St. Paul, Minnesota; graduated from Naval Academy (1935) and attended Marine Officer's Basic School, Philadelphia Navy Yard; 4th Marines and 2d Marine Brigade in Shanghai (1936–38); naval shipyards at Brooklyn and Portsmouth (1938); Marine detachment, New York World's Fair, and Marine Barracks, Quantico (1940–41); in command of Marine detachment, *USS Pennsylvania*, at Pearl Harbor on December 7, 1941; battalion executive officer, 9th Marines, San Diego (1942); commanded 2d Battalion, 9th Marines on Bougainville, Guam, and Iwo Jima (1943–45); instructor, Marine Corps Schools, Quantico (1945–48); headed amphibious warfare branch in Office of Naval Research (1948–49); staff member, Central Intelligence Agency (1949–51); assigned as amphibious plans officer to commander in chief, U.S. Naval Forces, Eastern Atlantic and Mediterranean Fleet, London (1951–53); student and faculty member, Armed Forces Staff College (1953–56); commanded 2d Marine Regiment (1956–57); assistant to the Vice President for national security affairs (1957–61); commanded 3d Marine Division, Okinawa (1961); assistant chief of staff both for intelligence and for plans, operations, and training at headquarters, U.S. Marine Corps (1962–64); commanding general, Camp Pendleton, and 4th Marine Division headquarters nucleus (1964–66); organized and commanded 5th Marine Division (1966); commander of III Marine Amphibious Force and senior advisor, I Corps Tactical Zone, Vietnam (1967–69); deputy director of Central Intelligence Agency (1969–71); 25th Commandant of the Marine Corps (1972–75); died at Fort Washington, Maryland.

U.S. Marine Corps Museum

Portrait by Albert Murray.

Another of our institutional responsibilities is the development of joint doctrine, tactics, techniques, and equipment for landing forces in amphibious operations. . . . the Marine Corps has made numerous innovative contributions to military doctrine, tactics, and hardware that have proven useful to all of our Armed Forces—and to our allies as well. Significantly, many of these contributions have provided "missing links" between the dimensions of warfare of primary interest to the larger services.

—Statement by Robert E. Cushman, Jr., before Senate Armed Services Committee (March 1975)

Organization

A PACIFIC HALF CENTURY

MacArthur observing Inchon landing.

U.S. Navy

U.S. Pacific Command's 50th anniversary on January 1, 1997. The oldest unified command, with the largest area of responsibility (AOR), it has watched over the Pacific region for 50 years, and is now poised to carry on into the next century. PACOM was one of the first unified commands, the other two being Far East Command (FECOM) and Alaskan Command (ALCOM). These commands, an outgrowth of the organizational structure used in the Pacific during World War II, were created in December 1946 as part of command structure modification.

General Douglas MacArthur, USA, became the first commander in chief, FECOM, while Admiral John Towers, USN, was named to head PACOM. FECOM had responsibility for Japan, Korea, the Philippines, and the Ryukyu, Mariana, Bonin, and Volcano Islands, and PACOM had the balance of the Pacific rim and the blue-water area from the west coast of the United States to the Indian Ocean and most of the Bering Sea. This extended the World War II arrangement under which Admiral Chester Nimitz commanded the Pacific Ocean area while MacArthur had the southwest Pacific. Major General Howard Craig, USAF, was selected as the first commander in chief, ALCOM, comprised of Alaska proper and the Aleutian Islands.

PACOM outlasted both FECOM and ALCOM. In 1957, after the conclusion of a peace treaty with Japan and the Korean armistice, PACOM assumed control of the FECOM area and forces. ALCOM was disestablished in 1975 but reactivated as a subordinate-unified command in 1989. PACOM now covers most of the Pacific and Indian Oceans from the U.S. west coast to the east coast of Africa, and from the Arctic to the Antarctic. Exceptions include a part of the Pacific near South America, which falls under U.S. Southern Command, and a small part of the Indian Ocean and Arabian Sea, which come within the U.S. Central Command (CENTCOM) AOR.

The command's area of responsibility encompasses 44 nations, 10 U.S. territories, and 20 territories and possessions of other nations. It covers more than 100 million square miles, or over half of the earth's surface, and includes 56 percent of the world population. It is characterized by diverse cultures and languages, nearly all forms of government, and seven of the world's largest military establishments. It also has nearly every level of economic development.

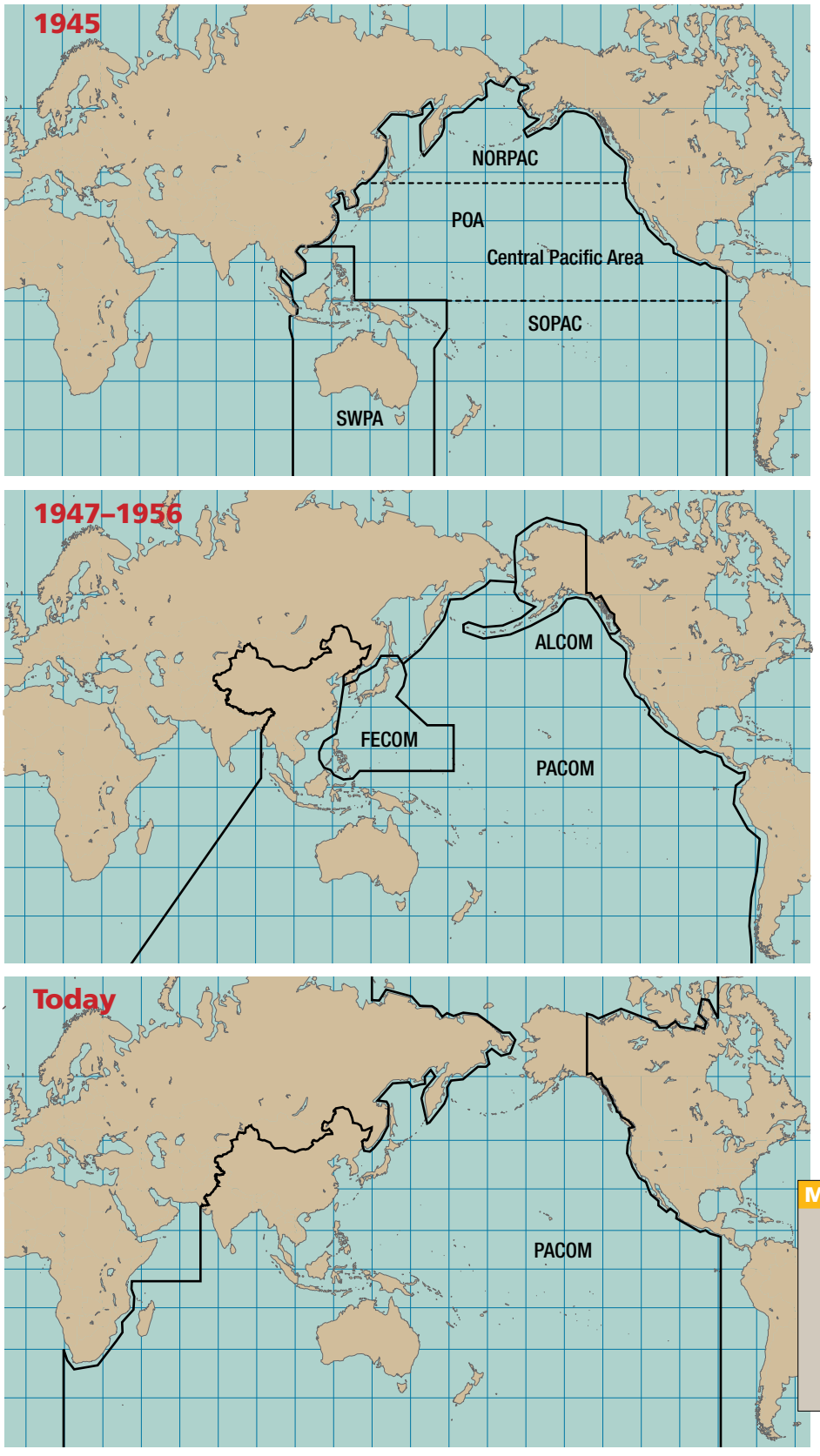
The PACOM vision is that of a joint, unified command which directs and coordinates the employment of U.S. forces in peacetime, crisis, and war to advance national interests as an active player, partner, and beneficiary in pursuit of a secure, prosperous, and democratic Asia-Pacific community. The command has executed a range of operations across the Asia-Pacific region from combat to peace monitoring to humanitarian aid over the last 50 years. It supported the evacuation of the government of the Republic of China from the mainland in 1949 and the Seventh Fleet stood between the forces of the People's Republic of China and Taiwan in 1950. Selected forces from PACOM were put under the operational control of FECOM during the Korean conflict, from 1950 to 1953. Its forces supported military operations in southeast Asia during the 1960s and the early 1970s. The command also provided key assets to CENTCOM during Desert Shield/Desert Storm and, more recently, supported operations against Iraqi recalcitrance in 1995.

PACOM subunified commands are U.S. Forces Korea, U.S. Forces Japan, and Alaskan Command; its five component commands include U.S. Army Pacific, U.S. Pacific Fleet, Pacific Air Forces, Marine Forces Pacific, and Special Operations Command, Pacific. Moreover, two standing JTFs fall under PACOM, Joint Interagency Task Force West and Joint Task Force Full Accounting, which are charged with counterdrug operations and with accounting for American servicemembers lost in southeast Asia respectively.

The command plays a vital role in the nexus of economic, political, diplomatic, and security interests which fuel this dynamic region. The economic boom in the People's Republic of China, Indonesia, Republic of Korea, Malaysia, Singapore, Thailand, and Taiwan has made this area the fastest-expanding in

(continued on page 124)

The Evolution of a Unified Command



During 1945 and 1947, Pacific command organization became the main obstacle to completing an "Outline Campaign Plan," the first version of the [unified command plan]. A line had to be drawn between a geographically-oriented Pacific Command (PACOM) and Far East Command (FECOM) that was functionally organized for the occupation of Japan. The Army pushed for assigning command by forces or functions, a position based on its advocacy of a Department of Defense under strong centralized direction. Behind the Navy's insistence upon command by geographical area lay its desire for a loosely coordinated DOD organization that would preserve service autonomy. Command arrangements, the Navy argued, had to reflect the reality that ships were not tied to functions but constantly steamed from one area of responsibility into another. Whether to place the Bonin and Marianas Islands under PACOM or FECOM became the bone of contention. The Navy saw all Pacific islands as one strategic entity, while the Army insisted that FECOM be able to draw upon military resources in the Bonin-Marianas during an emergency. Accordingly, the commander in chief, Far East (CINCFE), was given control over local forces and facilities in these islands, while naval administration and logistics there fell under the commander in chief, Pacific (CINCPAC). In 1951, during the Korean War, JCS shifted responsibility for the Bonins and Marianas as well as the Philippines and Taiwan from FECOM to PACOM. Five years later, with the Korean War over and the Japanese peace treaty concluded, FECOM was disestablished over Army protests and PACOM gained control over the area.

—The History of the Unified Command Plan, 1946–1993

Map Legend

ALCOM	Alaskan Command
FECOM	Far East Command
PACOM	Pacific Command
POA	Pacific Ocean Areas
NORPAC	North Pacific Area
SOPAC	South Pacific Area
SWPA	Southwest Pacific Area

(continued from page 122)

the world. When these burgeoning economies are compared in turn with the productivity of Japan as an economic power, it is easy to understand why stability in this region is critical to the United States and the world.

Awareness of the significance of the area is reflected in the PACOM mission, which is to promote peace, deter aggression, respond to crises, and if necessary fight and win to advance both security and stability throughout the Asia-Pacific region. Military presence and reassurance activities conducted by PACOM are central to regional security. They keep vital sea and air lanes open to commerce and support economic growth. Forward presence deters armed conflict, allows developing nations to focus resources on economic growth, expands markets for U.S. trade, and has stood the test of time in accomplishing its mission. The command is poised to carry on its 50-year legacy of promoting and protecting our interests through the strategic concept of cooperative engagement. That has served as a cornerstone for fostering peace and promoting these interests in a region that continues to grow in importance. With approximately 100,000 Americans forward deployed and a sizable U.S.-based force structure, PACOM provides our Asia-Pacific neighbors with a credible commitment.

Given this tradition, PACOM stands ready to protect the Nation's interests in the Asia-Pacific region into the next century—the "Pacific century." **JFQ**

Doctrine

JOINT DOCTRINE WORKING PARTY

Addressing the 18th meeting of the joint doctrine working party (JDWP) in October 1996, the Chairman recommended a thorough review of the joint publication system (see pages 40–41). In addition to briefings on various new doctrine proposals, the following decisions were approved: (1) incorporate joint doctrine for post-conflict operations in existing publications [office of primary responsibility, Army]; (2) develop a joint pub on deployment and redeployment [lead agent, U.S. Transportation Command; (3) develop a pub on joint tactics, techniques, and procedures for theater distribution [lead agent, Army]; (4) incorporate doctrine on joint force land component commander in Joint Pub 3-56, *Command and Control Doctrine and Procedures for Joint Operations*, which is currently being developed [office of primary responsibility, Army]; (5) develop a pub on doctrine for engineering operations [lead agent, Joint Staff]; (6) develop a pub on joint doctrine for logistics in multinational operations [lead agent, Joint Staff]; (7) incorporate risk management in applicable publications [office of primary responsibility, Army]; (8) designate the Air Force as lead agent for Joint Pub 3-60, *Joint Doctrine for Targeting*, which is currently being developed; (9) recommend elevating Joint Pub 3-56, *Command and Control Doctrine and Procedures for Joint Operations*, to above-the-line standing in the joint doctrine hierarchy; and (10) maintain the secret classification of Joint Pub 2-01.2, *Joint Doctrine and Tactics, Techniques, and Procedures for Counterintelligence Support to Operations*, as opposed to developing an unclassified volume with a classified annex. **JFQ**

Education

JOINT C4I COURSE

The Armed Forces Staff College offers a five-week Joint Command, Control, Communications, Computers, and Intelligence Staff and Operations Course (JC4ISOC) that teaches the application of command and control (C^2) concepts in the joint environment, comprehension of DOD organization and how it supports the C^2 process, and management of joint C4I systems and related joint procedures for strategic and theater/tactical systems. The course is intended for nontechnically oriented military officers and DOD civilians who are assuming positions that necessitate an understanding of C4I. Since this environment is diverse and broad in scope, students are not taught to perform specific C4I tasks. Rather, they examine C4I on the strategic, operational, and tactical levels to support national and military objectives.

The overall curriculum is divided into 13 blocks of instruction that include an introduction to C^3; threat awareness; national operations; information warfare; WWMCCS communications, facilities, and warning systems; strategic operations; intelligence support; a Washington field trip; theater command, control, communications, and computer systems; tactical command and control; and joint task force (JTF) C4 planning. Presented six times a year on the TS/SI/TK level for U.S. students only, JC4ISOC combines informal lectures by the faculty augmented by guest speakers with specialist knowledge and expertise from the C4I community.

For further information contact the Armed Forces Staff College at either (804) 444–8723 / DSN 564–8723 or via e-mail at c4istu@afscmail.afsc.edu. **JFQ**

History

CJCS HISTORY

The Joint History Office has published a revised edition of *The Chairmanship of the Joint Chiefs of Staff*. This 221-page richly illustrated volume, which originally appeared in 1989, traces the evolution of the position from its World War II origins and sketches the careers of each of the first twelve Chairmen and the first two Vice Chairmen. It also contains excerpts of the principal laws relating to the statutory role of the Chairman and other details on the position. The book is available from the Superintendent of Documents (ISBN 0–16–048726–9). **JFQ**

CALL FOR PAPERS

The Institute for the Study of War and Society at De Montfort University has announced that it will convene a symposium entitled "One Thousand Years of Warfare" on July 10–12, 1998 in Bedford, England. Areas to be considered during this three-day program are *war and the state* (the nature and art of war), *anomic violence* (use of force in irregular warfare such as insurgency and terrorism), and *men and matériel* (command and leadership, other aspects of military affairs, campaigns, and historical perspectives) over the last thousand years.

Scholars, military practitioners, and non-specialists alike are invited to submit proposals for papers or panels of presentations on a single theme. Those who wish to propose papers should submit a one-page précis and curriculum vitae. The deadline for proposals is October 1, 1997.

For additional information, contact: Symposium Committee, De Montfort University, Polhill Avenue, Bedford MX41 9EA, United Kingdom; telephone (011 44) 1234.793069 or 1234.793172; Fax (011 44) 1234.217738; or via the Internet @ RSIBBALDODMU.AC.UK. **JFQ**

THE WINNERS OF THE 1996

Joint Force Quarterly

"Essay Contest on the Revolution in Military Affairs"

sponsored by the National Defense University Foundation, Inc., are as follows:

FIRST PRIZE

"The Second Revolution"

by Captain (Select) James Stavridis, USN

Strategic Plans and Policy Directorate (J–5), Joint Staff

SECOND PRIZE

"The Profession of Arms in the Information Age"

by Lieutenant Colonel Arsenio T. Gumahad II, USAF

Office of Space and Technology, Headquarters, Department of the Air Force

THIRD PRIZE

"Black Lights: Chaos, Complexity, and the Promise of Information Warfare"

by Professor James J. Schneider

School of Advanced Military Studies, U.S. Army Command and General Staff College

JUNIOR OFFICER PRIZE

"A Revolution in Military Theory: Dynamic Inter-Dimensionality"

by Major Antulio J. Echevarria II, USA

Future Battle Directorate, U.S. Army Training and Doctrine Command

Prizes of $2,000, $1,000, and $500 will be presented to the first, second, and third place winners, respectively. An additional prize of $500 will be awarded for the best essay submitted by a junior officer (major/lieutenant commander or below). The winning essays together with other selected contributions on the revolution in military affairs will appear in issue 15 (Spring 1997).

THUCYDIDES AND THE TEACHING OF STRATEGY

A Review Essay by
ALVIN H. BERNSTEIN

The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War
Edited by Robert B. Strassler
New York: The Free Press, 1996.
711 pp. $45.00
[ISBN 0–684–82815–4]

Few senior government officials leave lasting legacies. Admiral Stansfield Turner, who was Jimmy Carter's director of central intelligence, is a notable exception. But he left his imprint not so much on CIA as on the Naval War College where some still speak of the "Turner revolution." Admiral Elmo Zumwalt, then chief of naval operations, sent Turner to Newport to reform the curriculum in the wake of the Vietnam War. Among the lessons of that unfortunate conflict was the need to fight smarter, and Zumwalt wanted Newport to help the Navy reach this objective.

Although the syllabus that Turner introduced at the Naval War College has been continually refined and modified by many distinguished faculty members over the years, his essential creation and contribution endures. In some ways, a memoir of his experience as the president of the Naval War College would make even more fascinating reading than his published reflections on his years at Langley, since he achieved at Newport what few have managed to accomplish in an otherwise rigid bureaucracy: he refashioned an entrenched institution. The story would make an ideal case study for the Kennedy School of Government and the plethora of institutions that have sprung up to teach newly independent states of the former Warsaw Pact how to reform their bureaucracies.

At the heart of the Turner revolution lay rigor, structure, and vision. Like Gaul, the Naval War College curriculum is divided into three parts. Senior officers and civilians from DOD and other agencies of government are exposed to national security decisionmaking, policy and strategy, and military operations. Turner enormously increased the academic requirements. The 15-week phase devoted to the study of policy and strategy, for example, still inflicts reading loads in excess of six hundred pages per week, and students must write multiple essays that are graded.

Upon crossing the threshold of the Strategy Department, every student receives a copy of *The Peloponnesian War* by Thucydides, a work of intellectually brilliant unfamiliarity. Reactions to this bizarre beginning are varied. Most students are initially bemused, some amused. A Marine colonel related to his classmates and the faculty that he had found the long-lost brother of Thucydides, "Thucydidoodah." An Air Force officer concluded an essay by observing that the Athenians might have changed the course of the Western world had they managed to get one F–16. A young infantryman, after informing a professor that his presentation on Thucydides was the best lecture that he had ever heard on any subject, then added with a Cheshire cat grin, "Unfortunately, it didn't teach me squat about how to take that hill." In the "Gaieties," an end-of-term event when students roast the college and their favorite (or least favorite) faculty members, one naval officer did a strikingly faithful imitation of Robin Williams in *Good Morning, Vietnam*. In a mock sports report during his routine he announced that, while there had been no action in the Delian League, "in the Peloponnesian League, Argos defeated Tegea, 7–4; Sparta downed Mantinea, 14–9." There was even a period when students were seen wearing tee-shirts emblazoned with "Cleon Lives."

More to the point, when students finally got the chance to give their ultimate verdicts on the quality of the curriculum, only a few suggested that this ancient case study be replaced with one more modern or "relevant." In part, this was because students who had come home from Vietnam and endured searing rejection felt an affinity with the frustrated blame culture that Thucydides had vividly depicted. Athens had struggled with a crisis of values during an unexpectedly protracted war which, for all its great power as a city-state, it could not successfully conclude. Moreover, the students also yielded to the modernity of Thucydides' brilliant analyses. Events that Herodotus, his predecessor in Greek history, might have explained with references to the will of the gods, local legend, and rumor, or to the overweening ambition of certain powerful leaders, Thucydides treated in terms indistinguishable from those of the best modern historians.

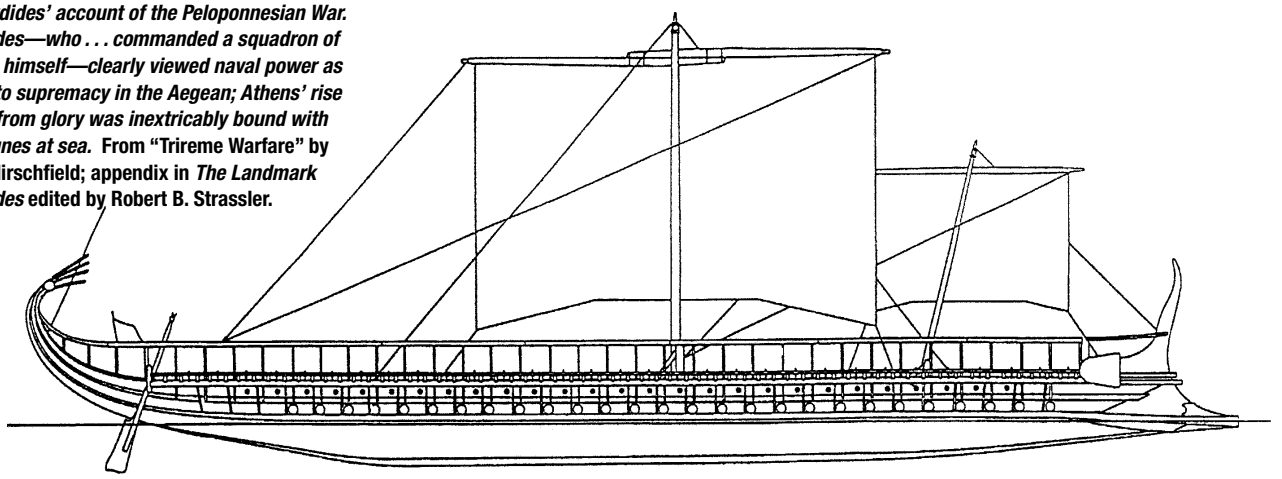
This constancy in intellectual method derives from an experiment with reason. The finest Greek thinkers came to believe, for complex reasons, that under the apparent chaos of daily life lay a natural order; that this order conformed to immutable principles; and that human beings could understand these principles by observation and contemplation. Whereas the Presocratic philosophers (such as Thales, Anaximander, and Anaximenes) first applied these assumptions to phenomena in the physical world, the Sophists used them in reflecting on the human condition, and we encounter them above all in Thucydides' great historical work, *The Peloponnesian War*.

Thucydides claims he is writing "a possession for all time," in that later ages would be able to learn from it because of the constancy of human nature as well as the broad consistency of social and political behavior that constancy yields. That is his reason for studying history. As he says later with regard to the revolution at Corcyra,

The sufferings which revolution entailed upon the cities were many and terrible, such as have occurred and always will occur as long as the nature of mankind remains the same; though in a severer or milder form, and varying in their symptoms, according to the variety of the particular cases.

Accordingly, in the speeches of the Athenian Pericles and the Spartan King Archidamus as their two coalitions contemplate making war against each other, we discover as good an example of net assessment as is found anywhere. We read a startlingly insightful exploration by Thucydides contrasting the need to maintain a reputation for decency, on the one hand, with the requirement in war to instill fear of unrelenting vindictiveness, on the other, as Cleon and Diodotus argue over the fate of the faithless Mytilenians. Then again, it is hard to contemplate a more straightforward, graphic description of *realpolitik* in Western literature than the Melian dialogue. Moreover, events leading to the battle between the Athenian and Sicilian fleets in Syracuse's harbor become in the hands of Thucydides a dramatic and poignant illustration of how clear strategic decisionmaking can founder on the shoals of operational incompetence. Thucydides

Alvin H. Bernstein taught Greek and Roman history at Cornell University and served as chairman of the Strategy Department at the Naval War College.



Ships, sea battles, and naval policy are key features in Thucydides' account of the Peloponnesian War. Thucydides—who . . . commanded a squadron of **triremes** ***himself—clearly viewed naval power as the key to supremacy in the Aegean; Athens' rise and fall from glory was inextricably bound with her fortunes at sea.*** **From "Trireme Warfare" by Nicolle Hirschfield; appendix in** ***The Landmark Thucydides*** **edited by Robert B. Strassler.**

The Trireme Trust (John F. Coates)

discusses the difficulties of land and sea powers in bringing their main forces to bear on each other, the dubious compatibility of democracy and domination, the effect of democratic process on defense planning and execution, the utility of economic and indirect warfare, and the uses and limitations of fifth column movements. All form the intellectual warp and woof of this splendid work, written almost two and a half millennia ago with an acuity and depth of insight which have rarely been matched and never surpassed.

Although Thucydides consciously tried to write a possession for all time—which explains in part why his work remains intelligible today—he could not avoid taking some knowledge for granted lest he bore his contemporary readers to tears by telling them *ad nauseam* what they already knew. Serious students of Greek history, with access to other sources and modern analyses, can fill in the gaps created by time. Others who wish to understand Thucydides without taking history courses—be they students of strategy or modern political science—will find help in a new edition of this difficult but rewarding work, *The Landmark Thucydides*, edited by Robert B. Strassler.

In this new edition readers will find not only the most accurate (albeit not necessarily the most readable) translation of Thucydides, which has been slightly updated by Strassler, but a number of highly readable appendices by some of the foremost scholars in the field as well. The essays cover Athens' government and empire, idiosyncratic domestic institutions in Sparta and the nature of its alliance, land and sea warfare, ancient Greek dialects, religious festivals, monetary systems, and Greek calendars. These appendices are masterpieces of concision and clarity. Together with an insightful and elegant introduction by Victor Davis Hanson, Thucydides is rendered much more intelligible and enjoyable for nonspecialists. What is more, Strassler has included the most useful collection of maps—141 in all—ever assembled in any edition of Thucydides. These allow readers to walk unknown terrain in ancient Greece and become familiar with the names and nature of its battlefields. Finally, the volume includes a complete, user-friendly index that will serve not only students but scholars who want to locate passages quickly when they remember only the subject. Everything that could possibly be done to help readers understand and enjoy *The Peloponnesian War* has been done.

In sum, it is difficult to imagine an edition that could do more to make this great classic by Thucydides accessible to students, amateurs and, not least importantly, officers at senior colleges interested in the essence of strategy. The only remaining service to be performed for the benefit of would-be readers must come from the publisher—The Free Press—which, after a decent interval, should bring out *The Landmark Thucydides* in an affordable paperback. JFQ

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JFQ

WHY TRAINING COUNTS

A Book Review by
WILLIAMSON MURRAY

Arming Against Hitler: France and the Limits of Military Planning
by Eugenia C. Kiesling
Lawrence, Kansas: University Press of Kansas, 1996.
260 pp. $35.00
[ISBN 0–7006–0764–1]

The fall of France in 1940, so sudden and catastrophic, so terrible in terms of its consequences, has attracted a host of historians to mull the wreckage and pontificate on its causes. For some the defeat was the result of a perennial French penchant for quarrelling among themselves. For others it arose from the insidious poisoning of national will by the left or right, depending on one's ideological stripe. And not surprisingly various commentators, from the great French historian Marc Block in *Strange Defeat* to the present, have argued that the French army was itself largely responsible.

More recently, some academic historians have argued rather bizarrely that the French army *was not* responsible for defeat, but rather it was external factors such as the nation's strategic situation, Britain's refusal to prepare effective land forces, political ineptitude, et al. Thus Maurice Gamelin, that extraordinarily intellectual general, did about as well as could be expected, given the conditions. This is nonsense. In the late 1980s a U.S. Army officer, Robert Doughty, completed a brilliant study entitled *The Seeds of Disaster, The Development of French Army Doctrine, 1919–1939*, on the formation of French doctrine in the interwar period. But Doughty ended his account in 1939 and only treated the 1940 campaign by implication. Nevertheless, the message was clear: for various reasons—some owing to happenstance, others to a lack of vision or incompetence—the French army developed doctrine that was almost wholly out of touch with the battlefield of 1940. Doughty demonstrated that the army was thus *the* major factor in the defeat of France that year.

Williamson Murray holds the Major General Matthew C. Horner chair of military history at the Marine Corps University.

In 1990 Doughty published *The Breaking Point, Sedan and the Fall of France, 1940* which moved beyond the doctrinal framework of his earlier work to examine the breakthrough by XIX Panzer Corps along the Meuse in great detail. Its major contribution was the equal weight it gave to both forces; thus the catastrophe around Sedan and the heights behind the river became clear not just for what the Germans did but for what the French didn't—or did wrong. However, for all of Doughty's insight, in the end his book was only about one segment of the battlefield and thus represented only one piece of the puzzle.

The value of the book reviewed here is that it expands on Doughty's thesis in an important way. One might conclude from reading *Seeds of Disaster* and *The Breaking Point* that the French defeat was largely the result of doctrinal imbecility (although the argument is far more sophisticated than that). *Arming Against Hitler* by Eugenia Kiesling—who like Robert Doughty teaches history at West Point—addresses French doctrine and strategy in a broader framework than her colleague. But equally important, its look at training regular and reserve forces indicates that this was an army that hardly trained at all. Nearly every exercise was a carefully scripted display that looked good but did not extend troops or staffs. As the book sums up this sorry record:

The point is not that the French soldiers ought to have been better trained but that a close look at the circumstances in which the training took place reveals a "tyranny of the mundane"—the sheer organizational and physical impediments to doing what the army acknowledged it had to do.

Training during the "phony war" showed no serious improvement, a crucial factor in the eventual defeat because the enemy *did* train its reservists under the ruthless regime of the regular army.

There is an important lesson here. Had the French trained more effectively, then even with flawed doctrine the results along the Meuse on May 13, 1940 might well have been very different. And we know how close it was for the Germans—"almost a miracle" in Guderian's words. But the French did not train long and hard beforehand and thus wasted most of the "phony war." The results were catastrophic for themselves and almost for the West as well. We should not forget the lesson of this book: that hard, relentless training truly counts. And those who ignore it *will* pay an awful price. *Arming Against Hitler* thus is a splendid contribution to recognizing this simple, basic truth. JFQ

THE EVERYMAN'S JOINT LIBRARY

A Review Essay by
WILLIAM G. WELCH

Critiquing joint doctrine is like reviewing the Bible. You quickly discover that people have strong and divergent ideas on the subject. But we need to take stock of joint publications as a literary event as well as a doctrinal watershed. It is the manifestation of a process that could go on forever and the time is right for an azimuth and bearing check.

A lot of blood, sweat, and tears has gone into creating joint doctrine in the recent past. One milestone was the completion of capstone and keystone pubs and revamping their style and format. These volumes were issued in what is known as the Joint Doctrine Professional Library Desk Set packaged in a handy banker's box. The style is attractive, easy to read, and has great illustrations. This is a far cry from older eight-by-eleven pubs. The box contains a video and CD–ROM—both impressive products—which take full advantage of technology. The volumes have been published as part of an extensive campaign to promote joint doctrine that includes everything from coasters to wall calendars. An initial distribution of 5,000 desk sets was made in mid-1995 to general and flag officers, students at senior PME colleges and the Armed Forces Staff College, members of Congress, and principals in the services, unified commands, and Joint Staff. (While the distribution of these boxed sets was limited, all titles in this collection can be found on line at the Joint Doctrine Web Site [http://www.dtic.mil/doctrine]). The set includes Joint Pub 1, *Joint Warfare of the U.S. Armed Forces*, keystone pubs (2-0, 3-0, 4-0, 5-0, and 6-0, but not Joint Pub 1-0, *Doctrine for Personnel and Administrative Support to Joint Operations*, which awaits approval to this day), a primer with summaries of all pubs, a compendium of titles both in print and under development, and Joint Pub 0-2, *Unified Action Armed Forces*. Together these volumes provide an opportunity for a balanced review of the current scope and depth of joint doctrine.

LTC William G. Welch, USA (Ret.), served as Army representative to the special planning group for air operations ("the black hole") during Desert Shield/Desert Storm.

Joint Doctrine Professional Library Desk Set

Joint Doctrine Capstone and Keystone Primer
Washington: Joint Chiefs of Staff, May 25, 1995. 88 pp.

Joint Pub 1, *Joint Warfare of the Armed Forces of the United States*
Washington: Government Printing Office, January 10, 1995. 64 pp. $3.25 ($4.06 foreign) [GPO Stock Number 008–020–01358–7]

Joint Pub 0-2, *Unified Action Armed Forces (UNAAF)*
Washington: Joint Chiefs of Staff, February 24, 1995. 91 pp.

Joint Pub 1-0, *Doctrine for Personnel and Administrative Support to Joint Operations*
Washington: Joint Chiefs of Staff, forthcoming.

Joint Pub 2-0, *Joint Doctrine for Intelligence Support to Operations*
Washington: Joint Chiefs of Staff, May 5, 1995. 124 pp.

Joint Pub 3-0, *Doctrine for Joint Operations*
Washington: Joint Chiefs of Staff, February 1, 1995. 156 pp.

Joint Pub 4-0, *Doctrine for Logistic Support of Joint Operations*
Washington: Joint Chiefs of Staff, January 27, 1995. 78 pp.

Joint Pub 5-0, *Doctrine for Planning Joint Operations*
Washington: Joint Chiefs of Staff, April 13, 1995. 98 pp.

Joint Pub 6-0, *Doctrine for Command, Control, Communications, and Computer (C^4) Systems Support to Joint Operations*
Washington: Joint Chiefs of Staff, May 30, 1995. 82 pp.

Joint Pub 1-01.1, *Compendium of Joint Doctrine Publications*
Washington: Joint Chiefs of Staff, April 25, 1995. 64 pp.

Joint Doctrine Professional Library CD–ROM
Joint Electronic Library, vol. 3, no. 1 (May 1995).

Joint Pub 1, *Joint Warfare of the Armed Forces of the United States* and *Joint Doctrine Capstone and Keystone Primer*
VHS Video, 17 minutes.

The first hurdle in what will be a long haul was negotiated with completion of the keystone pubs. Now we have the makings of a joint doctrine system and are defining a common language. The level of detail is appropriate at this point in the process, about which more will be said later.

These pubs are impressive in quality and style. The format is user friendly. The CD–ROM technology offers excellent learning opportunities. Its compact size and ability to portray pictures and video in book form is a great innovation. The availability of modems and capacity of CDs, coupled with Internet, will continue to make doctrine more accessible.

The Pubs

Joint Pub 1, *Joint Warfare of the U.S. Armed Forces*, reads like a stream of consciousness narrative (the Chairman's), and more than likely it is. Overall, the concept of jointness needs to be more clearly defined and explained. Appendix A of Joint Pub 1-01.1 would be much better placed here in Joint Pub 1 than in the compendium. A good discussion of what jointness is and how the joint doctrine system works, this title would nevertheless benefit from a definition of the principles of war as applied to jointness. Discussing them in relation to warfare in the late 1990s would provide a transition from old service-oriented doctrine to the new jointness. Moreover, readability and flow need to be improved. The pub should be pegged on a slightly higher level considering that most of its intended readers hold master's degrees. Finally, examples should be more relevant to the subject matter and today's forces.

Joint Pub 0-2, *Unified Action of the Armed Forces*, should be required reading for all flag and general officers as well as members of the Joint Staff and unified and component commands. It is an excellent primer on how the system works including roles, missions, and functions. Public law does make the treatment of some responsibilities a difficult read, but that is probably inevitable when attempting to avoid misinterpretation.

Joint Pub 1-01.1, *Compendium of Joint Publications*, is an absolutely essential resource volume, but its format may not be right. Given the constantly changing body of joint publications, this material is an ideal candidate for electronic media and on-line updates. It is well suited to the Joint Electronic Library (JEL) or Internet. Appendix A, "Warfighting American Style," would be better placed in Joint Pub 1. It is one of the most helpful descriptions of jointness and the doctrine process available. Finally, the selected quotes should match the chapter topics.

Joint Pub 2-0, *Joint Doctrine for Intelligence Support to Operations*, is by far the best of the capstone/keystone pubs. Its format, level of detail, and content should be the model for other joint publications. While some intelligence types say it is not what they want, nonspecialists find it a great explanation of how the system works on the joint level. Appendix B contains an excellent example of an intelligence estimate format. The only detractors are some busy graphics and charts, which is true of all these volumes (they look like some new version of Corel Draw after a large dose of steroids).

Joint Pub 3-0, *Doctrine for Joint Operations*, is the first keystone volume. Although it took a lot of compromises and some persuasion by the Chairman to get it out of the tank, it got the joint doctrine process off the ground. Unfortunately, it suffers from an unbalanced emphasis on land operations and neglects key aspects of maritime and air operations. Many quotations do not support the text and the illustrations need improvement. [See the author's review in *Common Perspective*, vol. 2, no. 1 (February 1994), pp. 19–20.]

Joint Pub 4-0, *Doctrine for Logistic Support of Joint Operations*, is absolutely the weakest of the keystone pubs. It never gets beyond "feed the troops and pass the ammo." Joint logistics is far more complex than this sketchy treatment lets on. CINCs and JFCs seem to spend most of their time addressing it, but this pub does not offer much help. The broad brush approach proves the need for greater detail.

Joint Pub 5-0, *Doctrine for Planning Joint Operations*, is excellent. It covers most of the bases in the joint planning system and how it is intended to work. The examples are confusing and do not

always seem to fit. Unfortunately the excessive use of bold typefaces and capitalization is distracting, and the layout leaves a lot of room for improvement. In addition, it would be a good volume in which to publish a couple of formats for a CINC or JFC campaign plan.

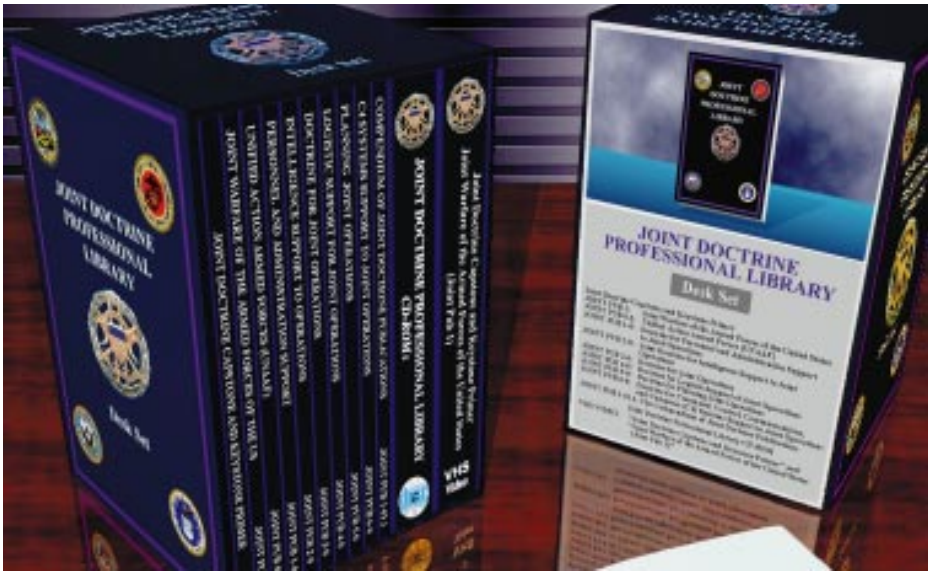
Joint Pub 6-0, *Doctrine for Command, Control, Communications, and Computer (C^4) Systems Support to Joint Operations*, provides a sound treatment of a complex subject although it may be somewhat technical for readers who only "let their fingers do the walking" on phone dials. However, this volume should be merged with the "C^4 for the warrior" publication. Neither stands well alone, but together they explain the system adequately.

Joint Doctrine Capstone and Keystone Primer is a collection of executive summaries of all volumes in the set and key doctrine publications. The summaries should be included either here or in each pub, but probably not in both. This volume is a good primer on the system for those who do not like details; but it must be updated as doctrine evolves. If reprinted it should be combined with Joint Pub 1-01.1. It is another serious candidate for electronic distribution.

What Needs to be Fixed

Now that we have joint doctrine, it must be unified. There is not much detail in these pubs. It took twenty years to get airbags in cars and it will probably take that long to get joint doctrine to the right place. Doctrine must put tools in the hands of JTF commanders and their staffs; yet these volumes are written on the executive summary level.

The graphics in joint publications need to be gotten under control. The emphasis must be on teaching, not smoke and mirrors. Some joint pubs have so



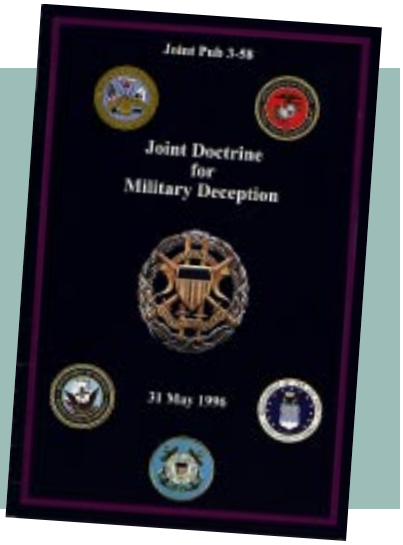
many layers of material, recycled briefing slides, and shades of purple that it requires a magnifying glass (with color filters) to focus on the page. Illustrations must be simple, presenting a few key concepts. Each quotation must substantively support the text and the sidebars must relate to the subject at hand rather than dish up historical tidbits seemingly apropos of nothing.

Most of the pubs cover the high end of their subjects and do not give JTF commanders and their staffs the level of detail required. There is a decided lack of operational tools for joint staffs. Staffs need standards—and devices to achieve them. We must develop tried joint concepts in order to form a coherent and truly joint team with a winning play book before the bullets start flying.

Joint doctrine differs from service doctrine. JFCs and CINCs are faced with a full range of situations that runs from peaceful competition to all-out war. They need their own solutions and doctrine, not someone else's. World War II answers are no longer applicable. Frontal assaults are out. We live in a world where, as Clausewitz observed, war is "nothing but the continuation of politics with the admixture of other means." Joint doctrine is where the military meets the political. The "shoot 'em down, sort 'em out on the ground" approach will not suffice for CINCs or JFCs. They must combine the political, diplomatic, informational, and economic with the military to find a solution. The doctrine in keystone pubs only occasionally solves problems among the services and does little to resolve things that challenge joint commanders who need top down solutions that are designed for the problem at hand, not dross rising from the services. Old standards no longer apply and traditional compromises won't achieve victory. The next hurdle will probably be coping with too much doctrine as the pendulum swings in the other direction. JFQ

Joint Doctrine on the World Wide Web

In an effort to enchance awareness of and increase access to joint doctrine, a World Wide Web site has been established at **http://www.dtic.mil/doctrine**. For more information, contact the Joint Doctrine Division (J-7), Joint Staff, at (703) 614-6469 / DSN 224-6469. JFQ



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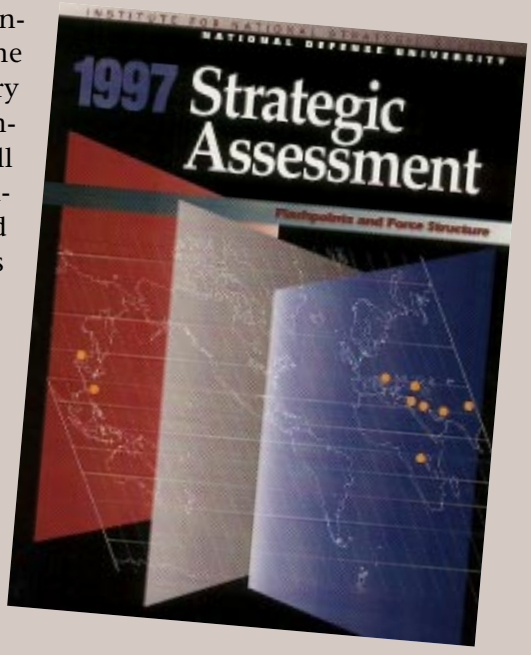
Strategic Assessment 1997

Flashpoints and Force Structure

published by the Institute for National Strategic Studies,
National Defense University

300 pp., illustrated. $27.00 ($33.75 foreign)

[ISBN 1–57906–029–3]



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If possible submit the manuscript on a disk together with the typescript version. While 3.5- and 5.25-inch disks in various formats can be processed, WordPerfect is preferred (disks will be returned if requested). Further information on submission of contributions is available by calling (202) 685–4220 / DSN 325–4220, Fax: (202) 685–4219 / DSN 325–4219, or writing to the Editor, *Joint Force Quarterly,* ATTN: NDU–NSS–JFQ, 300 Fifth Avenue (Bldg. 62), Fort Lesley J. McNair, Washington, D.C. 20319–5066. JFQ

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