

JOINT WARFIGHTING CENTER

In an era of dwindling resources and shrinking budgets, the military is working hard to get the most out of every dollar. This process has many names, among them, right sizing, reshaping, and building down. Although readiness must be maintained, it is no longer business as usual—efficiency and innovation are the norms. Toward that end, the Chairman approved creation of the Joint Warfighting Center (JWFC) as a cost-effective, forward-thinking combat multiplier for joint warfare. It will facilitate joint doctrine development and support joint training and exercises.

The genesis of JWFC can be traced to Congress. The Senate Armed Services Committee believed that a warfighting center would be beneficial for developing doctrine and concepts for joint operations. The Senate considered it possible to develop joint tactics and procedures, and to exercise joint operations through extensive simulation. In fact, it directed the Chairman to report to Congress on plans for establishing such a center.

A study group was formed to determine functionality and to set an azimuth for the center. The Vice Director, Operational Plans and Interoperability Directorate, Joint Staff, chaired the group which had representation from the combatant commands, the services, other elements of the Joint Staff, and the National Defense University. While the CINCs and service chiefs unanimously supported creating a center, their perspectives varied. The primary concern of CINCs was training and exercise support; the services focused on doctrine. In the final analysis the Chairman chartered JWFC to do both, as embodied in its mission statement and functions (see insert).

It is somewhat intuitive to suggest that the development of joint doctrine will enhance our ability to fight jointly. Military doctrine is the language of warfighters and, as with

any language, if proficiency is lacking one's ability to communicate is impaired. By facilitating the development of joint doctrine, JWFC will be a significant combat multiplier.

The importance of doctrine to operations was succinctly stated by General Curtis LeMay: "At the heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory. . . . It is the building material for strategy. It is fundamental to sound judgment." General Robert RisCassi recently gave a joint flavor to the role of doctrine in these pages by pointing out that "to achieve the full synergistic effects of joint combat power, the warfighting doctrine must be common to all arms" (see "Principles for Coalition Warfare" in *JFQ*, Summer 1993).

In 1992 Dr. John Hamre, a Senate staffer, noted that unless an organization was charged to foster the development of joint doctrine, the Armed Forces would be condemned to fight the next war with the doctrine of the last. JWFC will become that focal point for joint doctrine. The center will develop, assess, and revise joint doctrine and joint tactics, techniques, and procedures (JTTP). Its focus will be to support the combatant commander's doctrinal needs.

JWFC will integrate emergent technologies and the doctrinal process. Tactics, techniques, and procedures of operational employment will grow as a piece of equipment is developed from concept to prototype and full operational status. The

goal is to ensure that systems are not fielded before doctrine is developed for them. Unfortunately, history is replete with examples of systems deployed without doctrine. Even a system as powerful as JSTARS was handicapped by the lack of a doctrinally based employment strategy during Operation Desert Storm.

The worth of any joint doctrine corresponds directly with the degree to which it is known and understood. All Professional Military Education (PME) institutions, and especially the National Defense University, are charged with assimilating joint doctrine. JWFC will link emergent doctrine with joint PME. Doctrinal concerns also influenced the site selected for JWFC. The synergism of the Tidewater area, with its proximity to both the Armed Forces Staff College and service doctrine centers, offers enormous potential benefits.

JWFC will enhance our ability to fight jointly by supporting joint training and exercises. As the center of excellence for joint training program development, JWFC will build upon existing theater-specific training initiatives. Its training goal is to assist CINCs in bringing individuals to joint exercises who are better prepared to do their jobs—thereby ensuring a more effective use of these exercises. Joint Task Force (JTF) staffs will be able to concentrate on important lessons from joint operations rather than on honing personal skills.

The center will provide expertise to support CINCs in developing, planning, and executing joint training programs. Mobile training teams—composed of military, government civilian, and contractor personnel—will assist in preparing designated trainers for CINCs (or *training the trainers*). An academic training program based on joint doctrine will guide joint academics, seminars, and war games. The program will be modified as necessary to accommodate training requirements that are unique to specific areas of responsibility.

In response to direction from the Chairman and CINCs, JWFC will

Joint Warfighting Center

Mission

Assist the Chairman of the Joint Chiefs of Staff, CINCs, and chiefs of the services in their preparation for joint warfare both in the conceptualization, development, and assessment of current and future joint doctrine and in the accomplishment of joint exercises and training.

Functions

Facilitate the joint doctrine development process and provide a focal point for the consideration of emerging warfighting concepts.

Provide core expertise to assist in the planning, execution, and assessment of joint exercises and training activities.

assist in designing joint exercises. The center will serve as an institutional memory with a global perspective that will enhance the design of exercises, and play a supporting role in training control teams, role players, and opposing force teams. Also, JWFC will catalog and disseminate joint lessons learned.

The center will be limited only by the imagination of a CINC's staff. The capability will exist to construct operational environments in which to train forces for traditional warfighting missions as well as for operations other than war. These will include but not be limited to peacekeeping, drug interdiction, and disaster relief. Liaison will be developed with the Department of State, Central Intelligence Agency, Defense Intelligence Agency, Drug Enforcement Administration, and Federal Emergency Management Agency).

JWFC will use modeling and simulation technology to create valid operational environments. One vision is to enable CINCs to train and exercise by transparently linking multiple simulations (and units at multiple locations) together in a single, seamless, synthetic operational environment. It is important to clarify the meaning of simulation—everything except combat is simulation. There are three types of simulation: live, constructive, and virtual. Live simulations are operations with real equipment in the field, such as those conducted at the National Training Center, Red Flag, and Strike University. Constructive simulations are war games and models, such as the Corps Battle Simulation, Enhanced Naval Wargaming System, and Air Warfare Simulation. Virtual simulations are systems and troops operating in computer-generated environments such as SIMNET, aircraft simulators, and virtual prototypes. JWFC will explore linking these simulations into one seamless operational environment in which CINCs can train JTF staffs.

Distributed technology, though still not fully mature, will link these simulations. The goal is to make the

connectivity transparent to operators in the field, on the sea, or in the air. Weapons and equipment will provide input as opposed to special computer workstations. Operators will fight with their organic, assigned equipment.

The long-term vision for JWFC includes sending electrons on TDY more often than people. Potential dollar savings are enormous. Given the direction of the defense budget, this could be an important method of training and exercising JTF staffs. Aside from fiscal realities, two other reasons exist for training with simulation. First, the replay capability will enhance both learning and analysis. It takes much less time and energy to reset a simulation than it does to separate the blue and orange forces during Team Spirit. The second consideration is minimizing environmental damage by maneuver forces. Of course, units will still deploy for maneuvers—just not as often.

In an era of bottom-up reviews the expenditure of every defense dollar must be scrutinized and hard choices made about many worthwhile programs. The center is a cost-effective combat multiplier for joint operations whose time has come.

—Contributed by
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Symposium on Peacekeeping

The National Defense University will sponsor a symposium on "Military Coalitions and the United Nations: Implications for the U.S. Military" on November 2 and 3, 1993.

The program will focus on the backdrop of peacekeeping missions, the U.N. agenda, regional coalitions, and the roles of the Armed Forces including the perspectives of CINCs.

Further details on this and other symposia can be obtained by writing: National Defense University, Institute for National Strategic Studies, Fort Lesley J. McNair, Washington, D.C. 20319-6000, or calling: (202) 287-9230/ DSN 667-9230, or FAX: (202) 287-9239/ DSN 667-9239.

Doctrine

NAVAL DOCTRINE COMMAND

... there is a vital difference between our naval manuals which prescribe minor doctrine and those of the modern army. Ours do not flow from anything higher up, but represent merely a detached work unrelated to the other branches of the profession. Almost invariably they are prepared by a board of officers, many of whom have no greater qualification for the task than that of being good all around officers. The product of this board is normally the personal opinion of one or two of its best prepared members, based upon their own study and experience, which is necessarily limited and incomplete. . . . Consequently our manuals are not comprehensive and do not possess the close relationship which is desirable. The revisions do not develop the subjects in an orderly, logical and systematic manner but, due to variable conceptions and doctrines, produce confusion of service thought and practice.

It is often said that there is nothing new under the sun. The above words are as true today as when they appeared in a U.S. Naval Institute prize-winning essay by Lieutenant Commander Dudley W. Knox entitled "The Role of Doctrine in Naval Warfare" in the March-April 1915 issue of the *Proceedings*. Naval doctrine means many things to many people, yet a published definition cannot be found. The consensus at the deckplate level indicates that it generally refers to guidance, tactics, and procedures in the Naval Warfare Publication (NWP) System. A marinized application of the DOD definition has generally been accepted in the past, but the advent of a new world order and continual institutional change have mandated a new look and rethinking of the role, missions, and structure of the Department of the Navy. The establishment of the Naval Doctrine Command (NDC) in March 1993 was intended to ensure that naval doctrine is not only alive and well, but that all naval personnel,

the other services, and Congress understand the methodology behind the Navy and Marine Corps team conduct of operations in support of national military strategy.

The Relevant History

Until now, the Navy doctrine development process at all levels was a fragmented, bottom-up, fleet-driven approach. The fleet or a center of excellence (Naval Strike Warfare Center, Naval War College, Space and Electronic Warfare Center, etc.) identified doctrinal deficiencies, assigned primary review authorities (PRA), evaluated solutions, and drafted and coordinated the publication in question. As deficiencies were identified or new concepts envisioned the impetus for revising or initiating a publication was related more to the resources allocated than to the need. Not even at the highest level of doctrine was there a single organization providing top-down guidance. The Naval Tactical Readiness Division and the Navy Tactical Support Activity played largely an administrative role, providing oversight, resources, and production capabilities rather than substantive document review. Historically either the fleet or centers have performed the PRA document function but, while they will continue to prepare some doctrinal publications, NDC will develop and implement a new, top-down approach to doctrine development to assure a centralized focus in dealing with the consistency, development, dissemination, and evaluation of doctrine.

Naval doctrine should be more than simply a guide to naval forces since effective doctrine is the cornerstone for all naval tactics, techniques, and procedures. Although the Marine Corps has had a doctrine development organization at Quantico since the 1920s, the Navy is a latecomer to the field and has not until now had a resident cadre for the sole purpose of developing doctrine. Since procedures were not standardized and there was no central agency for ensuring doctrinal compatibility, the plethora of commands could not always reach accord, initiate working dialogues, or

find common ground on which to base doctrinal discussions or joint operational philosophy. Lacking a central coordinating authority it has not always been simple to get the fleets to agree on doctrinal matters. The different foci of the Atlantic and Pacific Fleets offer the clearest example: the Atlantic Fleet, working closely with the North Atlantic Treaty Organization (NATO), conducted operations differently from the Pacific Fleet, for whom NATO is an unknown quantity. The inherent link between the requirement for doctrine, equipment, training, and force structure was not always specified; nor was the rudimentary truth that doctrine was absolutely essential to warfighting capabilities.

While high-level attention to naval doctrine and doctrine development has been somewhat sporadic throughout Navy history, recent experience and events have spurred a respect for joint operations. Foremost was the passage of the Goldwater-Nichols DOD Reorganization Act which directed the Joint Chiefs of Staff to develop a joint warfighting capability. This legislation was the genesis for the Joint Publication System as well as the process for both developing and codifying joint doctrine. In delineating this system the services were assigned lead agent responsibilities for developing joint doctrine and the legislation itself mandated the alignment of service doctrine with joint doctrine.

Furthermore, with the collapse of the Soviet Union and dissolution of the Warsaw Pact the world order dramatically changed. With the removal of the cornerstone threat the relatively stable basis of Navy doctrine and tactics was shaken, left with outdated strategic concepts embodied in Naval Warfare Publication 1, and a development process totally unsuited to the pace of evolving national strategy. Yet the Navy remained committed to a blue water, war-at-sea mindset. While both sorely needed and inevitable, change was slow in coming.

Naval Doctrine Command Evolution

Operations Desert Shield/Desert Storm highlighted deficiencies and shortcomings in Navy doctrine, particularly with regard to joint operations. Training in, and the understanding of, joint doctrine were inadequate, equipment and procedures for joint operations were not in place, and due to inattention doctrine had been developed that was ineffective or in some cases unexecutable by naval forces. Combined doctrine employment fared somewhat better in maritime operations, but inadequate training, limited previous interaction with non-NATO coalition forces, and the lack of a common command and control system only served to worsen the deficiencies.

In examining the lessons of the Persian Gulf conflict it became only too obvious that Navy doctrine and its inherent developmental and review processes needed restructuring. While a Chief of Naval Operations (CNO) code was assigned oversight in developing tactical doctrine as well as naval and allied warfare publications, its small staff was only administrative and managerial; there was little capacity to thoroughly evaluate standardization and joint or allied congruency. Dispersed and bottom-up development of Navy doctrine had produced inconsistent doctrine and procedures. The Navy had been somewhat aloof in the development of joint, and to a lesser degree, combined doctrine. In some cases, this resulted in less than optimum joint employment concepts for naval forces, highlighted by Joint Force Air Component Commander (JFACC) procedures and execution in the Gulf War. Operational level naval forces were not completely conversant with joint and combined doctrine; it was nominally understood at the Battle Group staff level and higher, but, for most operators, it was a painful lesson-of-necessity.

Most importantly, the Navy learned a somewhat bitter lesson—it could ill afford to proceed without repairing the doctrinal gap between its traditional single-service,

▼ *Naval Expeditionary Force (NEF) Concept.* Review existing composite warfare commander and amphibious doctrine and develop a NEF commander concept paper.

▼ *Joint Doctrine Development.* Assume the Navy coordinating review authority for developing, reviewing, and evaluating all joint doctrine, and participate in every step of the joint process and serve as a Navy representative on joint doctrine working parties.

▼ *Naval Education and Training.* Ensure capstone documents are used throughout Navy and Marine Corps curricula and become part of the training continuum in all warfare communities.

▼ *Littoral Warfare.* Conduct a detailed study of warfighting in the littorals, particularly in the areas of adaptive force packaging, forward logistics support, strike and close air support operations, theater missile defense, multi/anti-ship missile defense, and shallow/very shallow water mine and anti-submarine warfare.

▼ *Combined Forces Operational Doctrine.* Assume responsibility for all standardization, allied publication, and NATO working party support and, also, collaborate in developing doctrine to fill the void in multilateral operations with other than NATO nations.

▼ *Command, Control, Communications, Computers, and Intelligence (C⁴I).* Develop follow-on doctrine to make maximum use of the systems available and future architectures.

▼ *Naval Warfare Publication (NWP) System.* Review the NWP system to align it with the Joint Publication System, shorten NWP production and revision time, reorganize NWPs to better support assigned roles and missions, and transition these publications onto CD-ROM.

▼ *Modeling and Simulation.* Ensure naval wargaming models accurately reflect doctrinal guidance as well as present and future operational capabilities and are compatible with other service models.

Future Challenges

With the inception of NDC, the naval services finally possess the capability to provide complete coordination and standardization for naval and Navy doctrine. NDC will provide the direction and coordination to ensure that naval doctrine reflects the concepts identified in "... From the Sea" and enhances the integration of

naval forces in joint operations. This centralization will give the naval service the top-down focus the other services already utilize, ensure consistency between naval and joint doctrine, and provide the necessary structure for a complementary doctrine continuum. NDC will provide increased fleet awareness and understanding of Navy, naval, joint, and combined doctrine, from sailors on other deckplates through senior flag policymakers and decisionmakers. And while not currently involved in the requirements process, NDC will help provide the long-range strategy from which to derive platform requirements and systems.

Doctrine translates ideas into comprehensive ways of thinking and, ultimately, fighting. As the primary authority for the development of naval concepts and integrated naval doctrine, and the coordinating authority for developing and evaluating Navy service-unique doctrine, NDC will assist naval forces in achieving necessary flexibility while providing standardization essential to the process. Through the establishment of NDC, the Navy and Marine Corps have clearly signalled their intent to enter the 21st century with doctrine that addresses a new geostrategic environment, the integration of naval forces in joint and combined operations, and possibly more importantly an acute awareness that naval doctrine must be uniformly understood not just by naval personnel but by all the services and Congress as well.

—Contributed by

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JFQ

AIR LAND SEA APPLICATION CENTER

Two current projects underway at the Air Land Sea Application (ALSA) Center with broad interest across the services involve developing multiservice manuals on humanitarian assistance and on joint close air support.

Humanitarian Assistance. The Joint Action Steering Committee which directs ALSA's activities, approved development of a multiservice tactics, techniques, and procedures (TTP) manual on humanitarian assistance (HA) for decisionmakers and planners to include concepts, roles, and responsibilities. It will outline the relationship between the services and governmental agencies and be designed for use by service major commands, joint task force commanders, Special Operations Forces, Federal agencies, and private volunteer organizations (PVOs) participating in humanitarian assistance operations. This project will fill the void in operational TTP in the area of humanitarian assistance and also provide a baseline for developing a Joint Humanitarian Assistance manual which has been assigned to the Army by the Joint Doctrine Working Party. The Marine Corps and Naval Doctrine Command will support the Army as technical review authorities in that effort. ALSA will support the U.S. Army Training and Doctrine Command (TRADOC) with research, information, and writing.

Joint Close Air Support. ALSA has recently been assigned a project to develop a multiservice Close Air Support ("J-CAS") TTP to eliminate differences in procedures among the Army, Navy, Marine Corps, and Air Force. It will coordinate service perspectives and procedures for CAS to enable any fixed or rotary wing aircraft to support any ground force. This effort should jump start the joint effort. The Joint Doctrine Working Party approved a joint TTP for CAS (Joint Pub 3-09.3) at its April meeting; the Marine Corps was subsequently assigned as the lead agent. ALSA will support the Marine Corps with the multiservice TTP as the basis for the joint manual. ALSA is striving to have the TTP available for review evaluation in the autumn. This will give the Marine Corps a top quality product to submit in January and hopefully reduce the coordination time required to produce a joint publication.

Further information on the status of ALSA projects is found in *The Air Land Sea Bulletin* which is available by either writing: ALSA Center, 114 Andrews Street, Suite 101, Langley Air Force Base, Virginia 23665-2785; or calling (804) 764-5936/DSN 574-5934.

History

OFFICE OF JOINT HISTORY

The Chairman, Joint Chiefs of Staff, activated the Office of Joint History on July 27, 1993 to record the enterprises of the Joint Chiefs of Staff, the Office of the Chairman of the Joint Chiefs of Staff, and the Joint Staff, and to support the documentation of selected joint and combined operations. Accepting the certificate of activation was the newly appointed Director for Joint History, BG David A. Armstrong, USA (Ret.). The program of compiling accounts of joint and combined operations and exercises will rest on the participation of the Reserve components. Historical teams made up of Reservists will assist the combatant commands by providing coverage of joint operations, a concept that has already been tested successful in both Somalia and Europe. **JFQ**

Education

JOINT MILITARY INTELLIGENCE COLLEGE

The Defense Intelligence College was redesignated the Joint Military Intelligence College (JMIC) on June 1, 1993. Operated by the Defense Intelligence Agency (DIA), the college has been reorganized to reflect changes in DIA by realigning the departments with basic military intelligence activities and establishing centers on collection, production, and systems.

The mission of JMIC, however, is unchanged: namely, to provide professional intelligence education

for the services and intelligence community. The college functions as a joint institution with faculty and students from all services together with civilians from the intelligence community.

JMIC offers programs on the undergraduate and graduate levels, and a master's degree can be earned in conjunction with the Postgraduate Intelligence Program. In addition, the college is in the process of becoming a degree-granting institution at the baccalaureate level. Programs are open to the active and Reserve components and to civilians in the fields of intelligence and operations.

For further details, contact Mr. Vince Tranchitella in care of the Joint Military Intelligence College, Washington, D.C. 20340-5485, or at (202) 373-2767/DSN 243-2767. **JFQ**

Documentation

THE JOINT STAFF OFFICER'S GUIDE

Since the first edition was published in August 1960, *The Joint Staff Officer's Guide*—also known as Armed Forces Staff College (AFSC) Pub 1—has become a standard reference within the joint community. Beginning as a text for students at the Armed Forces Staff College, AFSC Pub 1 now has been adopted by other institutions for classroom use and established as an indispensable desk reference for staff officers across the Joint Planning and Execution Community (JPEC).

The popularity of AFSC Pub 1 stems from its perspective on the joint planning process and the systems which support it. The volume extracts basic guidance from various primary sources, blends that documentation with proven procedures used by expert planners, and then packages the resulting information with a helpful assortment of charts, diagrams, and sample formats. Although its audience extends far beyond the walls of the school house, the original and primary purpose of the text is to support the curricula of

the Armed Forces Staff College. Pub 1 was never intended to serve as a substitute or replacement for joint or service doctrinal publications, nor is it part of the Joint Publication System (AFSC Pub 1 should not be confused with Joint Pub 1, *Joint Warfare of the U.S. Armed Forces*). However, this original purple book does offer practical insights into the interaction of doctrine and process, and is particularly helpful in referring readers to relevant official documentation on a wide range of joint issues.

By the mid-1980s the press run for AFSC Pub 1 passed the 15,000-mark. This year a new edition of AFSC Pub 1 appeared in over 57,000 copies. The text is issued to resident students at the Armed Forces Staff College who attend the Joint and Combined Staff Officer School; the JPE Phase II Senior Course; the Joint Command, Control, and Electronic Warfare School; and the Joint Planning Orientation Course. In addition copies are distributed to the Joint Staff, service staffs, combatant commands and component commands, subordinate unified commands, and the various elements of the National Defense University. Some commands and agencies attach their requirements for copies of AFSC Pub 1 to the initial printing contract which can result in significant cost savings. Efforts are underway to make AFSC Pub 1 available through the Joint Electronic Library (see the Summer 1993 issue of *JFQ* for details on JEL).

One of the strengths of *The Joint Staff Officer's Guide* is its dependence on the members of JPEC for updates, corrections, and accuracy. Since AFSC Pub 1 is revised and published every two years, the greater the information received on joint and combined planning, doctrine, and operations, the better each subsequent volume will become. Comments on the latest edition may be sent to Lt Col Boyce Burley, USAF, (804) 444-5437/DSN 564-5437, and questions on distribution may be passed to MAJ Hector Rivera, USA, (804) 444-5591/DSN 546-5591.

AFSC Pub 1 is also available for sale from the Superintendent of Documents at \$24.00 per copy. **JFQ**

CINCs CONFERENCE



DOD (Marnie M. Burke)

The annual Commanders in Chief (CINCs) Conference was held at the Pentagon on August 10, 1993, with the following in attendance: (front row, from left) General Carl E. Mundy, Jr., USMC (Commandant of the Marine Corps), General Merrill A. McPeak, USAF (Chief of Staff of the Air Force), Admiral David E. Jeremiah, USN (Vice Chairman, Joint Chiefs of Staff), General Colin L. Powell, USA (Chairman, Joint Chiefs of Staff), Admiral Frank B. Kelso II, USN (Chief of Naval Operations), General Gordon R. Sullivan, USA (Chief of Staff, U.S. Army), and Admiral William Kime, USCG (Commandant of the Coast Guard); (second row, from left) General Dennis Reimer, USA (Forces Command), General George L. Butler, USAF (Strategic Command), Admiral Charles R. Larson, USN (Pacific Command), General George A. Joulwan, USA (Southern Command), Admiral Paul David Miller, USN (Atlantic Command), and General Joseph P. Hoar, USMC (Central Command); (third row, from left) General Gary E. Luck, USA (United Nations Command/U.S. Forces, Korea), General Ronald R. Fogleman, USAF (Transportation Command), General John M. Shalikashvili, USA (European Command), General Charles A. Horner, USAF (Space Command), General Wayne Downing, USA (Special Operations Command); Admiral William Smith, USN (U.S. Military Representative to NATO). **JFQ**

JFQuarterly Survey of Joint Literature

BOOKS

- Bevin Alexander. *How Great Generals Win*. New York: W.W. Norton, 1993. 320 pp. \$25.00. [ISBN 0-393-03531-X]
- Roger A. Beaumont. *Joint Military Operations: A Short History*. Westport, Conn.: Greenwood Press, 1993. 245 pp. \$55.00. [ISBN 0-313-26744-8]
- William J. Crowe, Jr., with David Chanoff. *The Line of Fire: From Washington to the Gulf, the Politics and Battles of the New Military*. New York: Simon and Schuster, 1993. 367 pp. \$25.00. [ISBN 0-671-72703-6]
- William E. Odom. *America's Military Revolution: Strategy and Structure After the Cold War*. Washington: American University Press, 1993. 186 pp. \$22.95. [ISBN 1-879383-15-2]
- David Roth. *Sacred Honor: A Biography of Colin Powell*. Grand Rapids, Mich.: Zondervan Publishing House, 1993. 256 pp. \$19.99. [ISBN 0-310-60480-X]
- ### MONOGRAPHS
- Christopher J. Bowie et al. *The New Calculus: Analyzing Airpower's Changing Role in Joint Theater Campaigns*. MR-149-AF. Santa Monica, Calif.: The RAND Corporation, 1993. 85 pp. [ISBN 0-8330-1322-X]
- R.A. Brown and Robert J. Schneller, compilers. *United States Naval Forces in Desert Shield and Desert Storm: A Select Bibliography*. Washington: Naval Historical Center, 1993. 50 pp.
- John H. Cushman. *Handbook for Joint Commanders*. Annapolis: U.S. Naval Institute, 1993. 52 pp. \$5.95. [ISBN 1-55750-144-0]
- Lorna S. Jaffe. *The Development of the Base Force, 1989-1992*. Washington: Joint History Office, Office of the Chairman of the Joint Chiefs of Staff, July 1993. 60 pp.

- Charles D. Melson, Evelyn A. Englander, and David A. Dawson. *U.S. Marines in the Persian Gulf, 1990-1991: Anthology and Annotated Bibliography*. Washington: History and Museums Division, Headquarters, Marine Corps, 1992. 258 pp. [ISBN 0-16-038071-5]
- Charles J. Quilter II. *U.S. Marines in the Persian Gulf, 1990-1991: With the I Marine Expeditionary Force in Desert Shield and Desert Storm*. Washington: History and Museums Division, Headquarters, Marine Corps, 1993. 131 pp.
- Sterling D. Sessions and Carl R. Jones. *Interoperability: A Desert Storm Case Study*. McNair Paper 18. Washington: Institute for National Strategic Studies, National Defense University, 1993. 42 pp.

ARTICLES

- Paul Bracken, "The Military After Next," *The Washington Quarterly*, vol. 16, no. 4 (Autumn 1993), pp. 157-74
- Lawrence Di Rita, "I Went Joint (But I Didn't Inhale)," *U.S. Naval Institute Proceedings*, vol. 119, no. 7 (July 1993), pp. 66-70.
- Scott A. Fedorchak, "It Must Be Joint," *U.S. Naval Institute Proceedings*, vol. 119, no. 6 (June 1993), pp. 64-65.
- William W. Mendel and Lamar Tooke, "Operational Logic: Selecting the Center of Gravity," *Military Review*, vol. 73, no. 6 (June 1993), pp. 3-11. [Note: The June 1993 issue of *Military Review* is entirely devoted to an examination of operational art.]
- Steven Metz, "Operational Level of Nuclear War Fighting: Missing or Unnecessary?" *Airpower Journal*, vol. 7, no. 1 (Spring 1993), pp. 13-20.
- Wayne A. Silkett, "Alliance and Coalition Warfare," *Parameters*, vol. 23, no. 2 (Summer 1993), pp. 74-85.
- Wallace Thies and James D. Harris, "An Alliance Unravels: The United States and ANZUS," *Naval War College Review*, vol. 96, no. 3 (Summer 1993), pp. 98-126. **JFQ**