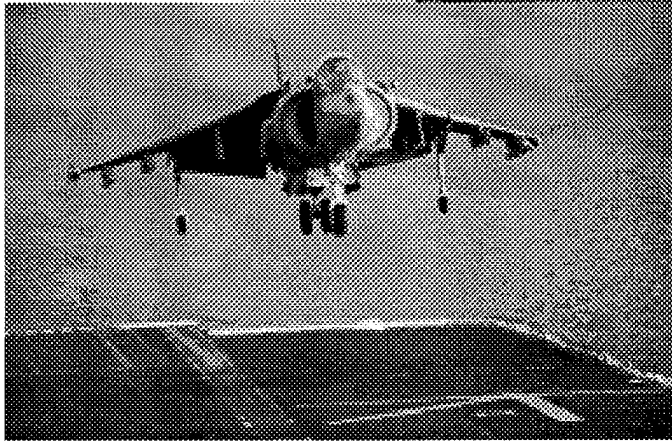
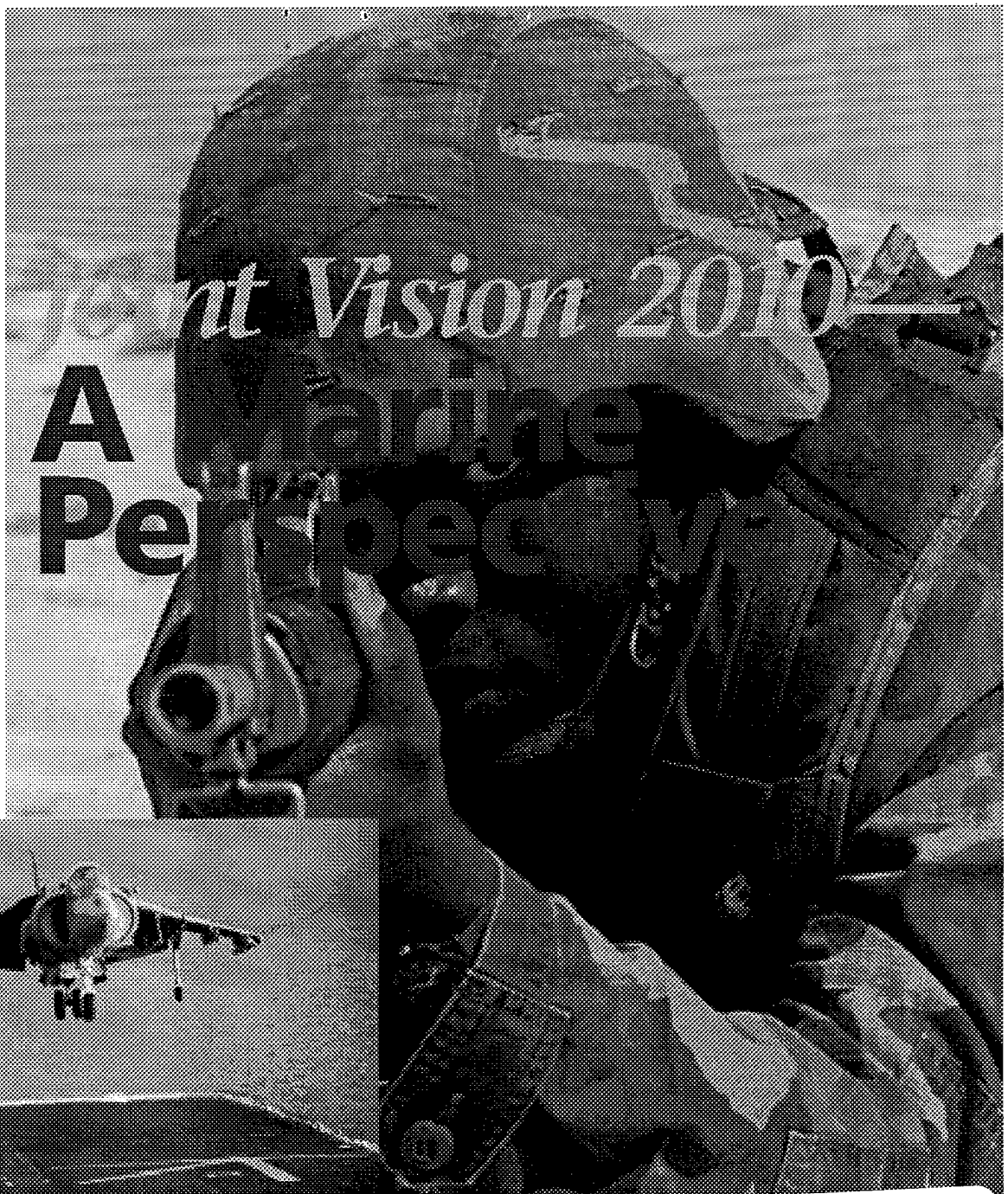


Marine securing beach during Bright Star '97.

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Pacific Fleet Combat Camera Group (Bryan K. Logan)

U.S. Navy (Benjamin D. Okey)

AV-8B landing on
USS Peleliu during
Kernel Blitz '97.

By F.G. HOFFMAN

The strategic environment today is markedly different than the bipolar context that shaped defense priorities and organizations for decades. In contrast to a monolithic enemy, we confront myriad threats arising from geopolitical change, an international economy, and the proliferation of technology. Moreover, despite hyped predictions about a revolution in military affairs, the nature of

war has not and will not change though its character will undergo a major transformation. This will be manifest in the forms of warfare, technological developments, and enemies who appear on the battlefield of the future. Preparing for such diversity requires a capacity to adapt and innovate.

To stimulate such a capacity within a joint warfighting framework, the Joint Chiefs of Staff issued *Joint Vision 2010: Preparing for the Future* in July 1996. This article compares that vision with the primary operational concept of the Marine Corps, *Operational Maneuver from the Sea*, and evaluates its utility in the current strategic environment.

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Those familiar with the business world recognize the use of a common vision to stretch the imagination of a corporation, create new expectations, and cause a sense of urgency for proposed change.¹ The services routinely issue vision statements or white papers (such as *Force XXI* by the Army, *Forward . . . From the Sea* by the Navy, and *Global Presence* by the Air Force) to convey changes in direction and highlight the horizon of future warfighting capabilities. The Commission on Roles and Missions of the Armed Forces found such visions helpful if somewhat self-serving and recommended that they be "harmonized" by a central vision to drive joint requirements.²

As a result of the commission's report, *JV 2010* was published to provide a "template" to channel the collective efforts of the Armed Forces. Its issuance was accompanied by controversy. Early drafts were decidedly technical and didn't mention the requirement for high quality personnel supported by effective training and education. They also conflicted with the way military doctrine looks at warfare—which is essentially Clausewitzian. Critics of these early drafts emphasized the enduring human dimension of war over the

transitory impact of technology. The drafts introduced new buzzwords and ahistorical assumptions on technical innovation in lieu of time-tested concepts

about the inherent friction and ambiguity of warfare. One got the feeling that the term *enemy* did not exist in the document's lexicon. Basic concepts like fog, friction, chance, and the independent and adaptive will of an enemy were replaced by an unrealized *information dominance*. Just as serious, these early drafts imposed a centralized style of command and control (C²), enabled by information technology, to achieve dominant levels of situational awareness.

The direct involvement of the Joint Chiefs was critical to rectifying the faults in the drafts. Ultimately the need for quality people, real presence, and a range of capabilities across the entire threat spectrum was included. The final version was heralded as a new warfighting strategy.³

The Vision

The Marine Corps view of the future strategic environment reveals danger and opportunity. Danger—chaos in the littorals—is characterized by myriad clashes of national aspirations, religious intolerance, and ethnic hatred. Opportunity emanates from advances in information

management, battlefield mobility, and the lethality of conventional weaponry. Such changes in the operational environment, representing both new threats and enhanced capabilities, raise many questions.

Specific answers to these questions are unknown today. However, Marine preparation for the future is captured best in the concept *Operational Maneuver*. Building on the foundation laid by . . . *From the Sea* and *Forward . . . From the Sea*, *Operational Maneuver* describes what naval forces should be able to do in the near term. It will not define every naval involvement in the next century, but the skills, techniques, and capabilities which it suggests will provide naval forces with a solid basis for innovation. The heart of *Operational Maneuver* is "the maneuver of naval forces at the operational level, a bold bid for victory that aims at exploiting a significant enemy weakness in order to deal a decisive blow."⁴

What makes this concept differ from others is the extensive use of the sea as an operating base—simultaneously a major avenue for moving forces and a barrier. *Operational Maneuver* uses sea-based logistics, sea-based fire support, and the ocean as a medium for tactical and operational movement. In both of these cases the sea is an operational advantage.⁵

JV 2010 and *Operational Maneuver*

There is no single answer to future challenges. *Operational Maneuver* is not the complete solution, but it has applicability over a range of requirements. A joint vision is needed to cover the entire spectrum and provide focus to developing an array of capabilities. It must be tied to both projected security needs and enduring goals and interests. *JV 2010* is intended to accomplish this with "a common direction for our services in developing their unique capabilities." It defines this direction through four generalized operational concepts that should be applicable across the conflict spectrum. It stresses that each concept is based on information superiority. Its object is to create a military that is "persuasive in peace, decisive in war, and preeminent in any form of conflict."

The best way to appreciate the relationship between *JV 2010* and operational capabilities being sought by the Marine Corps is to compare the operational concepts and end state of *JV 2010* with key elements of *Operational Maneuver*. The conceptual template in *JV 2010* is grounded in four concepts—dominant maneuver, precision engagement, focused logistics, and full dimensional protection, supported by information superiority—to achieve full spectrum dominance. As we will discover, each of these concepts can be compared to and is supported by *Operational Maneuver*.

the Marine Corps view of the future strategic environment reveals chaos in the littorals



Bjugn Cave, Norway.

Dominant Maneuver

JV 2010 defines dominant maneuver as “the multidimensional application of information, engagement, and mobility capabilities to position and employ widely dispersed joint air, land, sea, and space forces to accomplish the assigned operational tasks.” The aim of maneuver is to achieve a decisive advantage by controlling the breadth, depth, and height of the battlespace. The heart of *Operational Maneuver* is the maneuver of naval forces on the operational level for a decisive effect from the sea. It strives for victory by exploiting a significant enemy weakness in order to deal a dominant or decisive blow. It is multidimensional in its applying C² and intelligence systems to discern enemy disposition and critical weaknesses and in employing shipborne or aviation assets to maneuver against or engage an enemy. It also requires joint forces to attain battlespace superiority over the littoral region.

Operational Maneuver is more than movement of forces through the littoral region itself. The movement of units through the battlespace

alone may be indecisive or even counterproductive. It does not qualify as operational maneuver, which is an effort directed against a vulnerable enemy capability—something basic to its ability to effectively continue the struggle. In short, *Operational Maneuver* is designed to accomplish exactly what *JV 2010* seeks, the application of “decisive force to attack enemy centers of gravity at all levels and compel an adversary to either react from a position of disadvantage or quit.”

Precision Engagement

The joint framework in *JV 2010* consists of “a system of systems that enables our forces to locate the objective or target, provide responsive C², generate the desired effect, assess our level of success, and retain the flexibility to reengage with precision when required.” It seeks to shape the battlespace from extended ranges. *Operational Maneuver*, on the other hand, seeks to employ highly responsive fires from extended ranges or from ship-based naval aviation assets. Aviation elements must be prepared to operate ashore in an expeditionary mode to ensure responsiveness to maneuvering ground forces. The concept is also based on improved mobility ashore and will take advantage of

sea-based fires and shore-based fire support systems with improved tactical mobility. To support rapidly maneuvering forces, *Operational Maneuver* requires improved fire support coordination systems and procedures to increase responsiveness. Forces afloat and ashore can thus deliver fires with increased range and improved accuracy and lethality—a central aim of precision engagement.

Finally, in *Operational Maneuver* the Marines seek to employ supporting engagement fires to exploit maneuver which capitalizes on and maximizes the effects of fires. This is predicated on robust C⁴ISR architecture that enhances situational awareness as well as assured responsive fire support. *JV 2010* supports a similarly robust network that can enhance situational awareness. But *Operational Maneuver* provides for a wide array of engagement options for joint force commanders including nonlethal technology for use when less than deadly force is desirable. This option offers a unique capability to implement *JV 2010* at the lower end of the conflict spectrum.

Full Dimensional Protection

JV 2010 emphasizes controlling the battlespace “to ensure our forces can maintain freedom of action during deployment, maneuver, and engagement while providing multi-layered defenses for our forces and facilities at all levels.” Naval forces executing *Operational Maneuver* can assist commanders in meeting this concept. Once again, what distinguishes this concept from all other forms of operational maneuver is the extensive use of the sea as a means of gaining and sustaining advantage. This is what preserves freedom of action and, by layering air, surface, and subsurface defenses, what affords “full dimensional” defense. A sea-based posture, situated over the horizon and supported by C³I systems, organic theater air defense, and

theater missile defense provided by the Navy, can be extended over the maneuver forces as they move towards assigned objectives.

This offers an advantage when an enemy has the capability to employ weapons of mass destruction. A naval posture offers unique abilities by matching demands for full dimensional protection with responsive maneuver and engagement capabilities. This posture avoids the use of fixed sites such as airfields, ports, and prepositioned stocks (see photo on opposite page of equipment stored in Norway), all of which may have been precisely targeted by an enemy for strikes early in an intervention.

Focused Logistics

Focused logistics is achieved by “the fusion of information, logistics, and transportation technologies to provide rapid crisis response, track and shift assets even while en route, and deliver tailored logistics packages and sustainment directly at the strategic, operational, and tactical level of operations” in *JV 2010*. *Operational Maneuver* seeks the same level of fusion on all levels of war. For most of the 20th century, the utility of sea-based logistics was limited by the voracious appetite of landing forces for fuel, large caliber ammunition, and aviation ordnance. As a result, the options available to such forces were reduced by the need to establish, protect, and make use of supply dumps. Opportunities for decisive action were then lost as needed supplies accumulated on shore. *Operational Maneuver* requires rapid movement, not merely from ship to shore but from ship to objectives distant from blue water. Speed and mobility comparable to assault forces will be necessary for logistics elements responding to the demands of *Operational Maneuver*. Logistics flow must be efficient, secure, and timely, with the option to remain sea-based or buildup support areas ashore. While some operations may require the establishment of bases ashore, the practice of separating ship-to-shore movement from the tactical and operational maneuver of units ashore will be replaced by maneuvers in which forces are rapidly moved from ships at sea directly to assigned objectives hundreds of miles inland.

Operational Maneuver—like *JV 2010*—recognizes that logistics support must be efficient, secure, and timely. The Marine Corps is pursuing various “precision logistics” projects through its warfighting lab and CSS Enterprise, an initiative of the combat service support (CSS) community. The option to remain sea based or buildup support ashore gives JTF commanders means to ensure the efficiency, security, and timeliness of CSS. Delivery and matériel handling means, supported by C² systems able to communicate requirements, provide the “right time, right place” support set forth in the framework of *JV 2010*.

The combination of long-range weapons precision and greater reliance on sea-based fire support will greatly reduce the need for supply facilities ashore in the near future. As a result, the logistical tail of landing forces will be smaller, ship-to-shore movement faster, and operations ashore able to start without the traditional “buildup phase.” The mobility of maneuver forces and their reduced infrastructure ashore will facilitate rapid reembarkation and redeployment. This

a naval posture avoids fixed sites that may have been precisely targeted by an enemy



U.S. Navy (R.F. Pelland)

LCAC entering well deck of USS Fort McHenry.

will enable landing forces to quickly deploy—fight and then recock for other crises faster than before. In sum, “focused logistics” can be met by tailored logistics support in *Operational Maneuver*.

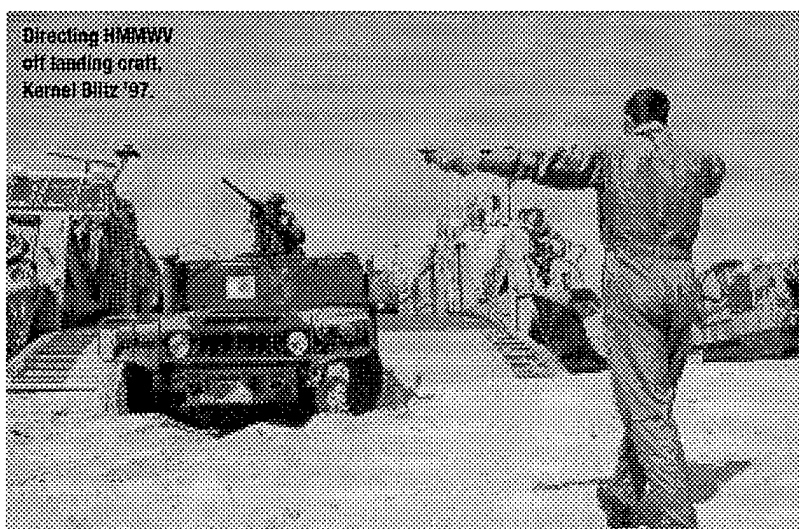
Information Superiority

Information superiority is defined in *JV 2010* as “the capability to collect, process, and disseminate an uninterrupted flow of information while exploiting or denying an adversary’s ability to do the same.” This superiority underpins the operational concepts in *JV 2010*. While it properly reflects the relational and competitive nature of information in combat, this definition is narrowly focused on technology and the movement of information rather than the idea of gaining knowledge or the more basic concept of enabling commanders to apply professional judgment while exercising command and control in combat.

The execution of *Operational Maneuver* is built on a solid foundation of operational theory and proven C² techniques as issued in Marine Corps Doctrinal Pub 6, *Command and Control*.⁶ This doctrine emphasizes the human dimension of warfare to complement the scientific element of communications technologies or intelligence systems. By contrast, existing joint doctrine, while acknowledging and citing some elements of

Marine doctrine, stresses technology and systems over fundamental C² doctrine. In fact the principal joint C² volume, Joint Pub 6.0, *Command, Control, and Intelligence Systems Support to Joint Operations*, primarily considers technology and systems. Moving electrons or collecting vast amounts of data is not the same as effective C². Marine Corps doctrine stresses effective leadership, articulation of the commander’s intent to guide subordinates, maximum initiative from subordinates, and decisionmaking with less than perfect information.

When combined with a robust C² system and effective training and education oriented on rapid decisionmaking on all levels of command, the added speed and flexibility generated translates into a high tempo of operations. With greater tempo, vulnerabilities can be exploited before they are reduced, opportunities seized before they vanish, and traps sprung before they are discovered. In short, Marine forces seek to act quickly so that an enemy cannot react effectively. *Operational Maneuver* stresses the need to acquire, maintain, and exploit information and deal with



Directing HMMWV
off landing craft,
Kernel Blitz '97.

1st Marine Division, Combat Camera (S/MIA Rice)

uncertainty. The importance of advanced information technologies is acknowledged by C³I capabilities desired for this concept, but the cognitive and creative elements brought about by a well trained leader also are stressed. Simply put, information superiority serves as a key enabling element in the C² tenets of *Operational Maneuver*.⁷

This is a central difference between *JV 2010* and *Operational Maneuver*. The operational environment for the latter is characterized by a dynamic, fluid situation. In such a chaotic setting, JTF elements require commanders and staffs who can tolerate ambiguity and uncertainty and make rapid decisions under stress. The Marines seek similar leaders and develop them by improving their capacity to identify patterns, seek and select

critical information, and make quick decisions. This intuition-based decisionmaking cycle will be enhanced by extensive investments in education, gaming, and combat simulation activities, and by battlefield

visualization techniques. Interest in tactical decisionmaking games, wargaming vignettes, and Marine Doom computer games reflects this bedrock understanding. Such investments will yield leaders who make informed judgments, act decisively, and ensure that *Operational Maneuver* and *JV 2010* are successfully executed.

From a Marine perspective, the key to this capability lies more in doctrine and training than in hardware and computer technology. *JV 2010* suggests that information superiority is generated by technology alone and underestimates the basic contribution of trained and properly educated leaders who have been immersed in tactical decisionmaking environments over many years.

Full Spectrum Dominance

The ultimate objective of *JV 2010* is a military that can achieve "full spectrum dominance," an Army term for competence across the conflict spectrum. The quest to be "preeminent in any form of conflict" is stated but rarely addressed in detail. By contrast, *Operational Maneuver* is not limited to the high end or conventional side of the conflict spectrum. Indeed, in a world where war will be conducted in many different ways, the very notion of conventional warfare is likely to fall from use. For that reason the techniques in *Operational Maneuver* must be applicable in situations ranging from humanitarian relief to a high-stakes struggle against a rising superpower. *Operational Maneuver* is designed to meet the need for engagement, crisis response, conflict prevention, and fighting and defeating various threats.

JTF commanders can employ C³I capabilities and the tactical mobility systems inherent in *Operational Maneuver* to maneuver forces precisely and decisively in peacekeeping, humanitarian, counterterrorism, and sanction enforcement tasks. The sea-based posture of the concept permits "the freedom of action for our forces and limits their vulnerability during combat and non-combatant operations," as called for in *JV 2010*. *Operational Maneuver* also provides precision engagement ranging from one well trained individual to an expeditionary force. Overall, *Operational Maneuver* appears more applicable to gaining "preeminence in any form of conflict."

Operational Maneuver is a concept that is largely compatible with the desired capabilities sought in *JV 2010*. It provides commanders with dominant maneuver and precision engagement across the conflict spectrum and from the sea. Sea basing provides additive force protection while enhancing logistics and operational flexibility. Information superiority as outlined in *JV 2010* does not do justice to C² requirements as the Marines define them, but it does pose the requirement for offensive and defensive information warfare, an emerging field which neither the Marine Corps nor *Operational Maneuver from the Sea* have addressed explicitly.

Although the overall intent and content of *JV 2010* are laudable, considerable work remains to validate and implement it. The devil is in the details and creating a process that allows the joint community to move from general concepts to concrete combat capabilities. The evolution will have its challenges. Until they are addressed, bringing *JV 2010* to fruition will be an elusive goal.

JV 2010 makes a few references to high quality people, professional training, and the need for

***JV 2010* does not do justice to C² requirements as the Marines define them**

physical presence in the form of "boots on the ground," but it has a clear technological focus. We must avoid the illusion of attempting to impose certainty on the battlefield.⁸ Technology offers improvements in the speed and accuracy of human decisionmaking, but it can't eradicate the impact of friction, fog, and chance in warfare. We know that it can enhance both the ways and means of fighting. But it can't eliminate the myriad factors that make war a distinctly human endeavor.

Another potential downside exists in what some call "strategic monism"⁹—the reliance on a single strategic approach. Diverse threats do not allow us to only have hammers in our toolbox. If you only have a hammer every problem looks like a nail. *JV 2010* seeks to integrate rather than supplant strategic concepts and functional service capabilities, but the dangers of strategic monism are never far away.¹⁰ Time will reveal what sort of toolbox *JV 2010* creates: all hammers or a set of reliable capabilities for a range of tasks.

Successful innovation requires institutional processes to explore and to systematically test and refine stated concepts or visions. Such empirical processes and concepts are "literally a *sine qua non* of successful military innovation in peacetime."¹¹ Experimentation takes place in a climate that tolerates diversity and debate. This is the best breeding ground for substantive innovation and is a solid defense against doctrinal and institutional rigidity.

In a brief preface to *JV 2010*, General Shalikhvili said: "Our organizational climate must reward critical thinking, foster the competition of ideas, and reduce structural or cultural barriers to innovation." To prevent *JV 2010* from becoming a static fixation or procrustean bed that arbitrarily hampers innovation, experimentation is needed. Since its appearance, however, the Joint Staff has yet to develop such a process.

JV 2010 will ultimately be evaluated by how well it supports national objectives. To meet future challenges, our strategic means must be far more agile. We will increasingly require flexible people and adaptive organizations to function in fluid environments. Our national security strategy calls for proactively shaping the international environment, emphasizing relationships with friends, allies, and coalition partners. *JV 2010*, on the other hand, has a warfighting focus with stress on the upper end of the conflict spectrum. Implementing it literally would structure our forces purely for warfighting rather than engagement, presence, or crisis response. The Chairman

and CINCs will not let this happen, but the dilemma must be resolved.

A joint vision should guide the Armed Forces from rigid or single service solutions toward an evolving, comprehensive framework to deal with any and all challenges. Operating in such an atmosphere requires flexible, adaptive forces that can reorganize and reorient rapidly in response to new tasks and missions. *JV 2010* must promote adaptation and innovation. It must generate both doctrine and forces to proactively shape the security environment of the next century. Rather than channeling it must advance innovation on a wide front. We live in a period of uncertainty and must be capable of operating and even thriving in that medium. The sooner this reality is accepted, the sooner we can implement *JV 2010* and really prepare for the future. **JFQ**

NOTES

¹ See James C. Collins and Jerry I. Porras, *Built to Last: Successful Habits of Visionary Companies* (New York: Harper, 1994), and Perry M. Smith, *Taking Charge: A Practical Guide for Leaders* (Washington: National Defense University Press, 1986).

² *Directions for Defense: The Report of the Commission on Roles and Missions of the Armed Forces* (May 1995), p. 2-2.

³ Robert Holzer, "JCS Forms Strategy for Future Warfare," *Defense News*, July 22, 1996, p. 4; Robert Holzer, "Shali Pushes Future Force Strategy," *Defense News*, August 29, 1996, p. 4.

⁴ "Operational Maneuver from the Sea," *Marine Corps Gazette*, vol. 80, no. 6 (June 1996), special insert.

⁵ Charles C. Krulak, "Operational Maneuver from the Sea," *Naval Institute Proceedings*, vol. 123, no. 1 (January 1997), pp. 26-31.

⁶ U.S. Marine Corps, *Command and Control* (October 1996).

⁷ For an overview of Marine Corps views on C² relating to the fundamentals of warfare and decisionmaking, see Paul K. Van Riper, "Information Superiority," *Marine Corps Gazette*, vol. 81, no. 6 (June 1997), pp. 54-62.

⁸ This has been updated as Marine Corps Doctrinal Pub 1, *Warfighting* (June 1997). See also Barry Watts, "Clausewitzian Friction and Future War," *McNair Paper* no. 52 (Washington: National Defense University Press, October 1996).

⁹ MacKubin T. Owens, Jr., "The Hollow Promise of JCS Reform," *International Security*, vol. 10, no. 3 (Winter 1985-86), pp. 98-111.

¹⁰ MacKubin T. Owens, Jr., "Goldwater-Nichols: A Ten-Year Retrospective," *Marine Corps Gazette*, vol. 80, no. 12 (December 1996), pp. 48-53.

¹¹ Barry Watts and Williamson Murray, "Military Innovation in Peacetime," in *Military Innovation in the Interwar Period*, edited by Williamson Murray and Allan R. Millett (New York: Cambridge University Press, 1996), p. 410. See also Williamson Murray, "Innovation: Past and Future," *Joint Force Quarterly*, no. 12 (Summer 1996), pp. 51-60.