



Joint fires and effects system open terrain module.

U.S. Army (Fred W. Baker III)

Joint Doctrine— Engine of Change?

By STEPHEN J. CIMBALA *and* JAMES J. TRITTEN

A considerable effort is being made to foster military transformation, much of which is related to the revolution in military affairs (RMA) and its implications for defense policy and strategy. How the military thinks, learns from experience, and trains presents major challenges to transformation. Such concerns are the stuff of

doctrine. Yet doctrine and its relation to change receive less attention than other aspects of transformation.

Some leaders have acknowledged the role of doctrine. As the Chairman told Congress, “transformation must include training and education, doctrine, and organizational changes.”¹ Vice Admiral Arthur Cebrowski, USN (Ret.), director of the Office of Force Transformation, indicated that the process will result in changes in leadership, decisionmaking, experimentation, organizations, matériel, readiness reporting, planning (which often will

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not precisely fit existing doctrine), doctrine itself, and training.²

Doctrine is vital to developing concepts of war, education, training, organization, and warfighting. The development of AirLand Battle in the Army provides a case study of doctrine as an engine of change. Moreover, doctrine is more than the sum of its parts. It lives and breathes into future plans and battles, beyond the visions of those who developed and produced it. Success in doctrine is about victory in future war.

Doctrine and Change

Despite its importance, the relation of doctrine to change remains controversial among military officers and defense analysts alike. There are reasons, based on American culture and military tradition, for skepticism about the impact of doctrine on military thinking, organization, training, and fighting. First, doctrine is often promulgated in a one-size-fits-all framework that belies the experience of operational and tactical commanders. Second, it has a natural tendency toward

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abstraction and generalization that frustrates attempts to draw particular conclusions. Third, once put into play it takes on an inertia that can defy changes in the geopolitical, technological, and social environments of war. Finally, each service has its own unique doctrine; thus joint doctrine must be negotiated across the sovereign boundaries of service ways and means of organizing, thinking, and fighting.

Despite the obstacles to developing doctrine that can promote change, it is already used in that way. If we intend to transform the Armed Forces, the real issue for joint doctrine is to establish its role in the process. Transformation occurs when the military masters new methods of warfare and can exploit an advantage on the field. Broad transformations are driven by major changes in technology, culture,



Acquiring satellite signal, Blue Flag '02-4.

2^d Communications Squadron (Michael A. Kaplan)

society, and other aspects of the environment pertinent to preparing for and waging wars. Evidence that joint doctrine is playing a part in transformation implies that personnel will at least have been educated/trained in some new joint doctrine and/or joint tactics, techniques, and procedures (JTTP) and perhaps have some new equipment.

Joint Vision 2020 uses the term *doctrine* eleven times in phrases such as “development of doctrine, organizations, training and education, leaders, and people that effectively take advantage of the technology” and “a vision for integrating doctrine, tactics, training, supporting activities, and technology into new operational capabilities.”

The Joint Vision Implementation Master Plan explains how to achieve the goals outlined in the vision statement. It states that changes in joint doctrine will be recommended but does not indicate how or detail its role in transformation.

There is a role for doctrine in exploiting RMA breakthroughs. What good are innovations in technology when the military is not trained to use them to their fullest advantage? What good is training with new weapons when there is no doctrine on how to

fight with them? Americans assume that technological innovation automatically confers military superiority. But history has recorded the defeat of numerous militaries holding that belief. Technology must be exploited for battlefield effect in a faster decision cycle than a potential enemy. Preparing for the optimal use of technology requires clear organization, planning, and training to impact all aspects of doctrine.

One analysis of the transformation of the German army during World War I highlights the necessity of taking the new idea through its logical end-state of implementation in the field:

The initial theory developed by [Oberst] Bauer and [Hauptman] Geyer was beyond the capabilities of the German army to put into practice. It demanded commanders at every level to direct their forces with minimal guidance from above and required troops to perform complex manoeuvres on their own initiative while under heavy fire. The skepticism of many officers was not unfounded. It was only through a major programme of training, in which everyone from private to general was taught how to fulfill their own part in the doctrine, that the Germans were able to bring that doctrine into effective reality.³

The Army has invoked the term *engine of change* in referring to the role of doctrine in transformation. In a pamphlet issued by U.S. Army Training and Doctrine Command in 1994, *Force XXI Operations*, doctrine is identified as an engine of change, implying that it influences training, equipment, and organization and serves as a conceptual basis for growth. It also states that the Army would use doctrine to shape the ongoing RMA with a visionary statement on the future battlespace. Its more recent plans for transformation suggest that doctrine is regarded as the voice rather than the engine of change, but include a comprehensive part for doctrine in driving modifications in training.

Many identify AirLand Battle as the quintessential example of doctrine driving change. When the Army decided to revolutionize the way it fought, it used new concepts and doctrine to engineer a thorough overhaul

Marines supporting
Task Force 51.8.



U.S. Navy (Joseph Krpel)

of methods and equipment. The service published a new edition of Field Manual 100-5, *Operations*, in 1982 to be the catalyst for matériel requirements, changes in education and training, reorganization, and leader development.

While joint doctrine is not the means of transformation, a review of its influence reveals that it plays a role that should not be overlooked. It can best support transformation through concept development, programming, and joint tactics, techniques, and procedures (JTTP); both service and multi-service doctrine and tactics, techniques, and procedures (TTP); and education and training.

Although the two terms are often used interchangeably, doctrine and concepts do not have the same meaning. According to Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, doctrine means the “fundamental principles by which

the military forces or elements thereof guide their actions in support of national objectives.” It is a codification of professional norms and practice. On the other hand, a tactical concept is “a statement, in broad outline, which provides a common basis for future development of tactical doctrine.” Thus concepts are future doctrine—ideas that might become doctrine when validated and supported. Joint concept development focuses on activities associated with operational art.

The Causal Matrix

Before it can be improved, doctrine must be understood as a baseline from which those who develop new concepts depart. Such ideas may be conceived in the form of concept papers, experimental doctrine, draft doctrine, or other think pieces. Lest concept developers work in isolation on

their ideas, doctrine experts must ensure that concept developers are kept informed of other recommendations to improve doctrine in the same area.

Recommendations to improve doctrine come from many sources, but ultimately those with new ideas need to interact with the keepers of the flame. Doctrine organizations are likely to have a wider knowledge of suggested improvements than a single concept developer.

The development process succeeds when concepts are validated and recommended for incorporation in doctrine. The final step takes place when a concept is accepted by warfighters in the field and fleet. In the case of the AirLand Battle, while it was conceived at Headquarters, U.S. Training and Doctrine Command, at

Fort Monroe, the new version of FM 100-5 actually emerged from Fort Leavenworth. Regardless of who prepares the change, there are necessary staffing actions. The current process of some twenty-one months is about right to introduce a new idea that has not been validated but probably is too long for a concept that has been vetted.

Hypothetical concepts that have undergone lengthy examination and experimentation, then further analysis and approval by the Joint Requirements Oversight Council, serve as an example. If such concepts are endorsed by unified commands, services, and Joint Staff, what would be the purpose of considering them at action officer level through the existing joint doctrine process? The procedure should be replaced by an accelerated track of a few months rather than the twelve-and-a-half month fast-track schedule. Nothing precludes the introduction of changes to doctrine based on analysis prior to a formal council decision. That would be fitting when concepts do not depend on the procurement of new matériel.

When appropriate, joint and service doctrine under accelerated or fast-track change can support the procurement of matériel for transformation. In the case of AirLand Battle, concepts that were codified as doctrine became instrumental in changing tank, infantry fighting vehicle, and helicopter design. A conscious decision was made

new concepts are generally developed as part of the acquisition of new hardware

to modify existing programs instead of canceling or starting new initiatives, which saved time.

New concepts are generally developed in conjunction with the acquisition of new hardware and other assets, but existing doctrine may be sufficient and a partner in transformation rather than an obstacle to overcome. Most important, new hardware must often be accompanied by new doctrine to explain how it will be used and as the basis for training.

What Doctrine Affects

- Policy and Strategy
- Organization
- Programming and Force Structure
- Planning
- Concepts Education and Training/Exercises
- Local Tactical Directives and Rules of Engagement
- Tactics, Techniques, and Procedures
- Other Doctrine

What Affects Doctrine

- Existing Doctrine
- Threat
- Geography/Demographics
- Technology
 - Resources
 - Strategy/Military Culture
- Other
 - Policy
 - Concepts
 - Tactics, Techniques, and Procedures
 - Strategy and Campaign Concepts
 - Change of Government
 - History/Lessons Learned

Toward Doctrinal Consistency

As a transformational concept is developed, it could become joint doctrine. To expedite this process, concept advocates may want to disseminate the doctrine across the Armed Forces, which will take time. Whenever new doctrine is issued, parallel changes must be made in other publications at the same time. For example, a major change in Joint Publication 3-0, *Joint Operations*, can affect many other titles. Moreover, service doctrine must be consistent with joint doctrine; hence a new concept in joint doctrine can impact on service doctrine as well as both service and multiservice tactics, techniques, and procedures. This cascading effect occurred when the Army developed AirLand Battle in FM 100-5. Subordinate branch and functional publications such as FM 71-2 (for battalions) and FM 71-100 (for brigades and divisions) had to be revised to reflect new operational-level concepts.

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Joint doctrine determines joint tactics, techniques, and procedures and also the approach of the Armed Forces to joint warfare. Thus if transformation is intended to enhance jointness, doctrine and subordinate tactics, techniques, and procedures must change. Such change will be easier to accomplish if joint doctrine is written and promulgated in an electronic form. While unwritten doctrine exists and is equally valid, its consistent implementation is difficult at best. The record of the Air Land Sea Application Center suggests that consistency among individual service tactics, techniques, and procedures can be achieved.

There is power to be derived from addressing doctrinal consistency, especially when the effort is intended to enhance warfighting capabilities, an implied goal of military transformation. Joint doctrine and JTTP should first be made internally consistent. The importance of constancy is best demonstrated by the NATO definition of commonality: “The state achieved when the same doctrine, procedures, or equipment are used.”

The Joint Staff, joint publication primary review authorities, and Joint Warfighting Center at U.S. Joint Forces Command are tasked to impose consistency, and new management tools



Brigade subscriber node integrated management system.

Fort Gordon (Claude Stallings)

such as the joint doctrine electronic information system will help provide that support. With the shift to paperless doctrine, revising joint pubs will be timely and changes in other sources could quickly follow. The services will complete the codification of existing unwritten doctrine to facilitate what needs to change as transformation takes place.

Training and Doctrine

It is no coincidence that U.S. Army Training and Doctrine Command has responsibility for education and training as well as doctrine. When a new joint concept is adopted, it must be translated into doctrine. In turn, that doctrine must be incorporated in educational curricula and training programs—learning is necessary for transformation to reach its full potential. Doctrine is a prime means for members of one service to learn about the capabilities of other services.

Joint Publication 1, *Joint Warfare of the Armed Forces of the United States*, envisions joint culture as a common goal. Changing military culture is a lengthy task that requires constant reinforcement. When the Army used AirLand Battle as an engine of change, it consciously sought to challenge the average soldier stationed in Europe,

who at that time believed that he could not win despite his best efforts.

Efforts such as accreditation of joint education, self-certification of joint courses, and joint lessons learned are critical in monitoring transformational doctrine and enhancing joint culture. Although not fully realized, joint culture is an acceptable goal for the Armed Forces. Joint Pub 1 envisions a “common joint culture from which to integrate service cultures and doctrines.” Indeed, any attempt to attain such a vision to integrate joint culture and doctrine is itself transformational.

Doctrine is also the basis for joint exercises and operations. Exercises in peacetime and, to a certain extent, actual operations can be monitored to establish the relationship between the doctrine employed in exercises and practice. The lessons learned process could determine how far extant doctrine is exercised or followed. When a concept is introduced and then becomes part of joint doctrine, it will take time for the old habits to die. Eventually differences between what should have been and what was observed should be diminished.

Exercises and terrain walks, in the case of AirLand Battle, played a key role in retraining senior officers in new doctrine that did not match what they were exposed to earlier. Any plan to transform the Armed Forces should incorporate these approaches or their equivalent and a vigorous lessons learned program to ensure feedback on how well the force actually follows new doctrine. Helmuth von Moltke (the elder) and Alfred von Schlieffen emphasized staff rides and walks over terrain as important means to test German doctrine for ground truth.

The observed results of training, exercises, and operations can serve as the baseline for future programs to improve the force. When those results reflect doctrinally approved actions, recommended changes in matériel, doctrine, or both can be compared against current force capability. A sound lessons learned process that correlates lessons to existing joint doctrine can help justify the need for transformation.

Doctrine education includes building support for new ways of doing business. In the case of the AirLand Battle, a dedicated marketing program was developed to ensure that Congress, the Army, and the Air Force were persuaded that they were moving in the right direction. The importance of this task cannot be overestimated.

Education also provides the Armed Forces with an opportunity to reach members of the public, who increasingly lack any military experience. Doctrine awareness programs such as the doctrine networked education and training modules and the joint force employment wargame, which are available via the Internet or on CD-ROM, will need to be updated to reflect the new doctrine associated with transformation.

Joint publications can explain military culture to civilians in an understandable language. If doctrine is authentic, explicit, and comprehensive, it will enable the public to be better informed about military affairs. The strength, roles, and employment of the Armed Forces are decided by voters through their elected representatives, and not by military professionals. On

the other hand, to enable this level of awareness to exist, the military must explain itself with clarity and avoid the use of neologisms and jargon.

Organization

A reciprocal relationship exists between doctrine and organization. The course of revising doctrine must find its way into plans, programs, and policy by means of organizational adoption (someone must own it) and direction (someone must drive it). But if doctrinal rethinking implies substantial change in organizational behavior, one or more elements may resist. Organizations inherently oppose change that threatens to diminish their autonomy. The persistence of the horse cavalry well into the 20th century is exemplary. Joint doctrine has the burden, from the perspective of the services as

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organizations, of making the case for cooperation based on convergent missions and objectives, despite diverse organizational interests and constraints.

One innovation was the adoption of the joint force air component commander (JFACC) concept. Prior to passage of the Goldwater-Nichols Act, U.S. Air Forces Europe had developed TTP that included JFACC for use within theater. A similar idea was proposed for NATO. U.S. European Command placed the concept in a local theater counterair publication and became lead agent for JCS Publication 26. The Joint Staff later designated this document as Joint Publication 3-01.2, *Offensive Counterair*.

JFACC was then used by U.S. Atlantic and Central Commands in operational plans and exercises and U.S. European and Central Commands in actual operations, particularly Desert Shield/Desert Storm. JFACC became a regular feature of joint organization as other areas of joint doctrine were affected. Service programs were adjusted to support this expectation: the Army battlefield coordination element was expanded to be a battlefield coordination detachment to better support

joint force commanders and JFACCs. The Navy built the concept into the contingency theater automated planning system.

A Joint Process?

Implied in analyzing the role doctrine can play in transformation and as an engine of change is the recognition of a joint doctrine process that includes more than publishing manuals. At a minimum, the process takes into account all possible influences on joint doctrine, the existing publication process, and other matters that doctrine can or should influence.

The process described above is not without limits. The best doctrine cannot compensate for flawed policy, poorly defined objectives, or operational/tactical approaches that are one step behind those of an enemy. Doc-

trine can help to prepare for deterrent and defense missions. But hollow doctrine that fills glossy publications but is not realized in the field and fleet is worse than useless: it conveys an image of preparedness that is as misleading as it is superfluous. Finally, true believers must drive doctrinal innovation as an element of military transformation, often in the face of considerable adversity. There is no road to salvation without dedicated apostles.

Joint doctrine can be an engine of change. Improving doctrine is a necessary condition, albeit an insufficient one, for military transformation. It can support the development of new ideas and advance validated concepts through doctrinal publications. Moreover, it can expedite future transformation. Improving doctrine helps programming and fielding of new hardware. This role can be reactive or proactive. As the Secretary of Defense has pointed out, "All the high-tech weapons in the world will not transform the U.S. Armed Forces unless we also transform the way we think, the way we train, the way we exercise, and the way we fight."

As new concepts emerge, both joint doctrine and joint tactics, techniques, and procedures will evolve to reflect the American way of war. Existing processes and programmed information management tools will facilitate this role for joint doctrine. Finally, new doctrine will be the basis for changes in education, training, and exercises to develop professionals who will lead the Armed Forces into action. Without inserting new doctrine into schoolhouses, exercises, and the actual conduct of operations, it will become an unfulfilled vision of how to operate—a book on the shelf. Flawed doctrine is more than irrelevant. History records many highfalutin doctrinal expressions that paved the way for military failures. **JFQ**

NOTES

¹ Chairman of the Joint Chiefs of Staff, Fiscal 2003 Department of Defense Budget Testimony (transcript), as delivered, before the House Armed Services Committee, February 6, 2002, <http://www.defenselink.mil/speeches/2002/s20020206-secdef.html>.

² Arthur K. Cebrowski, *Special Briefing on Force Transformation*, November 27, 2001, http://www.defenselink.mil/news/Nov2001/tl1272001_t1127ceb.html. Speaking at a conference on defense excellence sponsored by the American Institute of Aeronautics and Astronautics on February 19, 2002, in Washington, Cebrowski apparently also made an off-hand remark that "doctrine, as we know it, is probably dead, along with the process which creates it." See David McGlinchey, "Officials Say Afghanistan Ops Showed U.S. Can Adapt In New Situations," *Inside the Army*, February 25, 2002, p. 2.

³ Martin Samuels, *Command or Control: Command, Training and Tactics in the British and German Armies, 1888–1918* (London: Frank Cass, 1995), pp. 196–97.