

New Joint

The Warfare

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A 25-mile radius radar used to alert surface-to-air missiles and anti-aircraft guns.

U.S. Air Force (Scott Stewart)

F-117A stealth aircraft on the flight line at Langley Air Force Base, Virginia.

U.S. Air Force

Successfully developing effective military capabilities is not unlike solving Rubik's Cube. If individual service assets and strengths are represented by the squares of a cube, then solving the puzzle involves long periods of adjusting military capabilities to reach the optimum configuration. In the wake of the Gulf War many believe that the Armed Forces resemble a

completed puzzle, one that took decades to solve but that now fits together as tightly as the classic paradigm of a cube. What actually occurred was that the puzzle was overtaken by technological breakthroughs and the rush of world events. The result is the advent of the kind of turmoil that disrupts the established order and presents the military professional with yet another puzzle to solve.

Summary

The Gulf War not only marked a watershed in modern joint and combined operations, but also ushered in another, new type of warfare that is influenced by the course of emerging technology and the pace of world events. Like changes that have followed the development of new weapons throughout military history, doctrine and strategy are undergoing a revolution in the wake of the greatly enhanced stealth, precision, and lethality of fielded systems. As a result, commanders can anticipate that operations will almost always be joint, that distinctions between the strategic and tactical levels will blur, that new centers of gravity will emerge, and that the combat area will be more complex and difficult to delineate. These changes require redefining campaigns and campaign phasing, interdiction, maneuver, close air support, and other time-honored terms.

emy's economic infrastructure by computer intrusion may be just as valid as an approach to warfare by the year 2000 as strategic bombing is today.

Redefining the Combat Edge

Technology remains the major driving force behind the changing limits of the combat area. When soldiers lined up abreast and maneuvered with spears and shields in sweeping formations to flank an opponent, commanders needed only to primarily consider the breadth of battle. With the advent of artillery, the depth of the battle area (even on the seas) became an important consideration in the development of doctrine, strategy, and tactics. Fewer than twenty years after the first flight of the Wright brothers, the battle area had a significant, expanded vertical dimension. Most professionals recognize current technology is once again dramatically expanding the range of these boundaries. The breadth, depth, and height of the battle area now encompasses the entire globe and extends well into space. The requirement for global situational awareness is more critical than ever before.

The new paradigm points to revolutionary change in the way we think about the battle area. Time—the fourth dimension—may become the paramount factor in modern combat. Prior to the new warfare military leaders measured time (in combat terms) by weeks, months, or even years of operations. The luxury of

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having the time to think, plan, and react stemmed from the limitations on physical movement of combat forces. It took

time for soldiers to march, vessels to transit, and aircraft to deploy, as well as for commanders to gather and assess intelligence.

Ballistic missiles, jet aircraft, hovercraft, and turbocharged light vehicles are characteristic of the new environment. As emphasized in *Joint Warfare of the U.S. Armed Forces* (Joint Pub 1), "Crises may unfold rapidly, and critical engagements may occur with little time to prepare." The commander can no longer afford the luxury of thinking in terms of days, weeks, or months to *phase* campaigns or move forces. The need to identify, target, and attack in near real-time is now a

fact of life. Modern warfare demands grasping massive theater-scale operations on a minute-by-minute basis. The possibility of a potential adversary launching ballistic missiles compresses the decision cycle even further and dramatically emphasizes the point.

Aside from the characteristics of new weapon systems, two additional factors influence the criticality of time in the new paradigm. The growing sensitivity of the American public to combat losses suggests that civilian leaders will tend to measure future acceptable levels of U.S. casualties in *dozens* rather than *thousands* of lives. The Gulf War set a standard in this regard that could be difficult to meet in future conflicts unless certain technological advantages are pursued. In order to minimize casualties, the Armed Forces must deliver the full range of combat power quickly and decisively. Moreover, prolonged conflicts make it far more difficult to maintain political-military coalitions which are becoming increasingly important and complex in the new environment.

The New Battle Area

The ability to conduct simultaneous operations across the depth, breadth, and height of the combat area compels military professionals to change their perspective. The traditional reliance on finely drawn lines on charts must be challenged in order to fully realize the potential of emerging combat systems. Among the questions that must be asked are:

▼ Will future naval commanders responsible for destroyers with cruise missiles capable of striking ground targets a thousand miles away understand the new battle area? Will the missiles recognize Forward Support Control Lines (FSCLs) drawn on a chart or the significant maneuver by friendly forces that has occurred since launch? If not, how can combat power at the disposal of commanders be effectively advocated and integrated into useful operations?

▼ Will Army company commanders in charge of new fire systems with ranges of 200 km fully understand the integration of weapon systems into strategic targeting plans? If not, how can commanders begin to think about improving doctrine, strategy, and tactics?



U.S. Navy

A Marine Corps F-18 fighter firing a Sidewinder missile.



U.S. Navy (Kfir/Johnson)

Combat information center aboard the aircraft carrier *USS Constellation*.

over a prolonged period of time may no longer be valid. The advent of parallel warfare dramatically reduces the time required to achieve objectives. The net result is that future JFCs can pursue multiple objectives simultaneously. For all practical purposes transitions between campaign phases may occur so quickly that one might consider each campaign as consisting of only a single phase. If so, are there still traditional campaigns or should a new term be coined and added to the military lexicon?

Interdiction. Impeding, hindering, or isolating by firepower (typically using short-range aviation or submarines) is the traditional form of interdiction. This old definition, however, is no longer sufficient for the new joint warfare and changing battle environment. Service capabilities now provide for interdiction by computer, electronic warfare, electromagnetic pulse, psychological operations, and a host of other emerging means of denial.

Furthermore, planners have historically viewed interdiction as a function that supports the CINC. But consider the emerging paradigm: could not technology provide interdiction capabilities so complete and effective (read *operationally paralyzing*) that an opponent recognizes the futility of continuing? That was hardly the case in World War II, Korea, or even Vietnam. The high volume of munitions required to strike individual targets—due to weapon inaccuracy—could not support effective, wide-scale

interdiction.² If it is now becoming possible to achieve operational paralysis quickly, then interdiction could conceivably become the JFC's primary strategy.

There is also a danger in believing that interdiction is more effective if segmented or divided into geographic regions or areas of responsibility.³ Interdiction must occur quickly and decisively across the depth, breadth, and height of the modern battle area to fully exploit its synergistic effect. This means controlling interdiction at command levels responsible for theater-wide activities. Allowing control of interdiction activities to reside at a lower echelon of command—or excluding certain capabilities because of service-unique positions—will likely result in missed opportunities and the misuse of integrated land, sea, air, space, and special operations forces.

interdiction must occur quickly and decisively across the battle area

Maneuver. A principle of war generally associated with mass movement, maneuver may become less important in the new battle area. First, being able to see the entire battle area (using JSTARS, AWACS, and emerging space systems) provides JFCs with opportunities to optimize movement. Commanders will move smaller and smaller elements of very lethal systems to counter

conceivably could deliver munitions or other payloads from land, sea, or air.

These are just a few of the terms and definitions that must be recast in light of the new joint warfare. They also reveal some of the basic elements of this warfare.

Fundamentals of the New Warfare

The first basic element of the new warfare is the axiom that the whole is greater than the sum of its parts. While technology can provide unprecedented military capabilities, no single weapon or force reaches its full potential unless employed with complementary capabilities. The military professional should recognize the increasing *synergism* of modern forces. In particular, Joint Force Commanders (JFCs) must be cognizant of individual service capabilities and enabling characteristics needed to carefully orchestrate quick, decisive actions. The ability to *orchestrate* force capabilities to achieve desired results is the key to success. It does not matter if a symphony conductor once played the flute; the only allegiance is to the strength and power of the synergism.

Complementary operations are necessary for any future success. JFCs must form the team so that the appropriate players are in the line-up and ensure the game plan suits the operation. In the new paradigm, it is important that JFCs select the *key force* required to spearhead efforts. That force is the military capability with the greatest potential impact on events. This concept goes well beyond designating a particular service as the key force. In the new warfare special forces or psychological operations may have as much impact on the

outcome as traditional combat elements. The key force requires full and unequivocal support from all force elements. The force designated by JFCs may vary in each new scenario.

Another element of new doctrinal development is *organizing to win*. Relationships that exist only in crises have proven to be less and less effective over time. Command relationships of the past cannot be relied on to continue to work in the future. It is necessary to pioneer new command structures for peacetime as well as periods of crisis.

Conflict has achieved truly *global proportions*. It is difficult to envision any scenario affecting only the United States. Because of American troop withdrawals from around the world, conflicts will be fought at greater distances than in the past. This fact requires close cooperation with allied and friendly nations for the use of sovereign airspace, transit of waterways, and benefit of temporary basing facilities. Practically all military scenarios envision political support of allies and other international partners. Greater participation by coalitions in conflicts and operations can be expected. This puts greater emphasis on the expanding role of combined training and exercises. Not only must joint doctrine be capable of accommodating new technology and exploiting service capabilities, but it must be intelligible to both allies and coalition partners. Absent from the current debate are serious questions about improving combined operations. How would Thai forces use U.S. space assets during coalition action? How would U.S. forces exploit future Japanese assets? These are important issues for the new joint warfare.

Post-conflict operations in the new joint warfare environment are almost as important as combat itself. Protecting refugees, fostering fledgling regimes, providing humanitarian assistance, and enforcing peace accords are all necessary to ensure stability in today's world.

The Challenge for Commanders

Effective command and control of the most capable military force in history is a daunting task. Not only must JFCs completely understand the synergetic effect of an increasing range of service capabilities, but designated commanders must be enabling forces themselves. JFCs must have authority to direct all available assets at their disposal and the ability to create cohesive teams. Any attempt to undermine or dilute the principle of unity of command by claiming service-unique doctrinal exemptions is counterproductive to the new joint warfare.

Future battle within the new paradigm is more than a team effort. Most team members tend to come together and put aside their individual differences only for the big game, then they part company and revive personal animosities. Resulting friction on the sidelines eventually manifests itself on

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