



The Army in Joint Operations

The Army's Future Force Capstone Concept 2015-2024

Version 2.0

7 April 2005





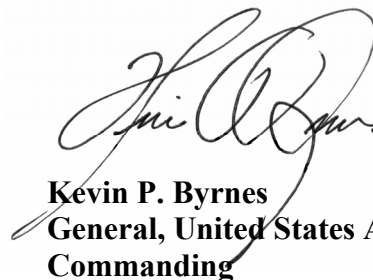
Foreword

From the Commanding General U.S. Army Training and Doctrine Command

The Army's capstone concept, TRADOC Pamphlet 525-3-0, is our overarching visualization of how the Army Future Force will support Joint Force Commanders in the period 2015 – 2024. The ideas presented here are fully integrated within the evolving context of our estimates of the future operating environment, joint and Army strategic guidance, and the joint framework. They have emerged as a result of years of research, wargaming, experimentation, and operational lessons learned by the Army, our sister Services, and the joint community. However, they are far from final – they are but a start point for a dynamic, professional dialogue on how best to meet the needs of the Nation together with our partners in the Defense community. Their purpose is to shape our continuing campaign of learning, and as we test these ideas – even to the point of failure – we expect them to evolve. Therefore, this capstone concept is labeled “2.0”; we will routinely refine and update this capstone concept.

The Army's preeminent challenge is to reconcile expeditionary agility and responsiveness with the staying power, durability, and adaptability to carry a conflict to a victorious conclusion, no matter what form it eventually takes. The most dramatic advances in military operations over history were borne of ideas – about warfighting, organization, doctrine. Advances in simulations and wargaming permit exploration and experimentation with new concepts many years before the fielding of relevant capabilities. Our concepts not only help us visualize future operations – they are the basis for the development of Future Force capabilities. As our azimuth for the future, they also shape near-term changes to the Current Force as we adapt to our current conflicts and maintain the Army's Warrior Ethos.

Technological advances alone will not constitute transformation. Our most critical asset is not technology, but the critical thinking of our Soldiers and leaders. Our intent is not to confirm these ideas; it is to challenge them. We seek institutional innovation – the application of critical thinking within an effective organizational framework that can encourage such challenges, examine them honestly, and go where the answers take us. We welcome your comments and collaboration.



Kevin P. Byrnes
General, United States Army
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Executive Overview

The capstone concept is organized into seven chapters:

- [Chapter 1](#) outlines the purpose and the challenge of full spectrum dominance.
- [Chapter 2](#) outlines the implications of the strategic context, both the projected future operational environment, described at [Appendix B](#), and current strategic guidance, described at [Appendix C](#).
- [Chapter 3](#) describes the joint framework, the context for all Army operations.
- [Chapter 4](#) outlines the main idea, the operational problem to be solved and its associated solution synopsis.
- [Chapter 5](#) discusses the seven key operational ideas of the capstone concept in depth.
- [Chapter 6](#) provides a broad overview of key Future Force capabilities. Force attributes and DOTMLPF solution sets are described in [Appendix D](#).
- [Chapter 7](#) concludes with the observation that this capstone concept is a living document, to explore and refine through a vigorous process of wargaming and experimentation. [Appendix E](#) outlines significant alternative futures and their potential impacts.

The Army Future Force will be a strategically responsive, campaign quality force, dominant across the range of military operations and fully integrated within the joint, interagency, and multinational security framework. It will provide sustained land combat power to future joint operations, responding effectively and seamlessly to any conflict, regardless of character or scale. The full spectrum quality of the Future Force will address the diverse threats and the volatile conditions expected to characterize the future operating environment through the adaptive combination of seven key operational ideas:

- **Shaping and Entry Operations** shape regional security conditions, and – if forces are committed – shape the battlespace, help seize the initiative, and set conditions for decisive maneuver throughout the campaign. Use of multiple entry points will help overcome enemy anti-access actions, enhance surprise, reduce predictability, and - through the conduct of immediate operations after arrival - produce multiple dilemmas for the enemy.
- **Operational Maneuver from Strategic Distances** to a crisis theater will enable the force to deter or promptly engage an enemy from positions of advantage. Employing advanced joint lift platforms not dependent on improved ports, the Future Force will deploy modular, scaleable, combined arms formations in mission-tailored force capability packages, along simultaneous force flows, to increase deployment momentum and close the gap between early entry and follow-on campaign forces.
- **Intratheater Operational Maneuver** by ground, sea, and air will extend the reach of the joint force commander, expand capability to exploit opportunities, and generate dislocating and disintegrating effects.
- Once the Future Force seizes the initiative, it combines its multidimensional capabilities in **Decisive Maneuver** to achieve campaign objectives:

- *Simultaneous, distributed operations* within a noncontiguous battlefield framework enable the Future Force to act throughout the enemy's dispositions.
 - *Continuous operations and controlled operational tempo* will overwhelm the enemy's capability to respond effectively, resulting in physical destruction and psychological exhaustion at a pace not achievable today.
 - *Direct attack of key enemy capabilities and centers of gravity* with strike and maneuver will accelerate the disintegration of the enemy operational integrity.
- The Future Force also conducts **Concurrent and Subsequent Stability Operations**, the former to secure and perpetuate the results of decisive maneuver *during* the campaign, and the latter to "Win the Peace", once enemy military forces are defeated, to ensure long-term resolution of the sources of conflict.
 - **Distributed Support and Sustainment** will maintain freedom of action and provide continuous sustainment of committed forces in all phases of operations, throughout the battlespace, and with the smallest feasible deployed logistical footprint.
 - Throughout the future campaign, **Network-Enabled Battle Command** will facilitate the situational understanding needed for the self-synchronization and effective application of joint and Army combat capabilities in any form of operation.



Operational Overview

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Military Operations
THE ARMY IN JOINT OPERATIONS
THE ARMY FUTURE FORCE CAPSTONE CONCEPT

Summary. United States Army Training and Doctrine Command (TRADOC) Pamphlet (Pam) 525-3-0 is the Army's capstone concept - the overarching visualization of how the Army Future Force will participate in joint operations in the period 2015-2024 to achieve full spectrum dominance across the range of military operations. The ideas presented here are fully integrated within the evolving context of our estimates of the future operating environment, joint and Army strategic guidance, and the joint framework. They have emerged as a result of years of research, wargaming, experimentation, and operational lessons learned by the Army, our sister Services, and the joint community. However, they are far from final - they are but a start point for a dynamic, professional dialogue on how best to meet the needs of the Nation together with our partners in the defense community. Their purpose is to shape the Army's continuing campaign of learning. As the Army tests these ideas - even to the point of failure - we expect them to evolve.

Applicability. This concept is the foundation for Future Force development and the baseline for the subsequent development of the supporting concepts and experimentation described within the Army Concept Development and Experimentation Campaign Plan (ACDEP). It also functions as the conceptual basis for developing required solutions sets related to the Future Force within the domains of doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF). This concept applies to all TRADOC, Department of Army (DA), and Reserve Component (RC) activities that develop DOTMLPF requirements.

Suggested improvements. The proponent of this pamphlet is the Director, Futures Center, Concept Development and Experimentation Directorate. Send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) through channels to Commander, TRADOC (ATFC-ED), Fort Monroe, VA 23651-1046. Suggested improvements may also be submitted using DA Form 1045 (Army Ideas for Excellence Program (AIEP) Proposal).

Availability. This publication is only available on the TRADOC Homepage at <http://www.tradoc.army.mil/tpubs/pamndx.htm>.

*This pamphlet supersedes TRADOC Pamphlet 525-5, dated 1 August 1994.

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Chapter 1. Introduction

1-1. Purpose. This document constitutes the capstone concept for the Army's Future Force. Focused on the theater-strategic and operational levels of war, the concept is nested within the Joint Operations Concepts (JOpsC) and other emerging joint concepts. It is compatible with Army doctrine contained in Field Manuals (FMs) 1 and 3-0, but necessarily extends beyond current doctrine, describing new ways and means of conducting future operations. It is the foundation for Future Force development and the baseline for development of the supporting concepts and experimentation described by the Army Concept Development and Experimentation Campaign Plan (ACDEP). It also functions as the conceptual basis for developing required solutions sets related to the Future Force within the DOTMLPF domains. Consistent with current joint concepts, it focuses on the period 2015-2024. The Army will routinely update this concept in response to ongoing Army and joint experimentation, operational lessons learned, and changes to the projected joint operational environment.

1-2. The Challenge of Full Spectrum Dominance. Strategic and joint guidance unequivocally establishes full spectrum dominance - *the defeat of any adversary or control of any situation across the full range of military operations* - as the overarching goal of joint transformation and joint force development. The scope of potential challenges is daunting. **Traditional** adversaries will continue to possess significant conventional land, sea, and air forces. In the face of United States (U.S.) overmatching conventional capabilities, some adversaries will adopt **irregular**, unconventional methods. Weapons of mass destruction (WMD) in the hands of traditional or irregular adversaries pose potentially **catastrophic** threats. The U.S. cannot, moreover, ignore the possibility of **disruptive**, breakthrough technologies that counter its capabilities or marginalize its power. The U.S. may indeed face all of these challenges, at one time, in one place. We cannot easily parse these threats, but rather must expect to encounter them in adaptive, seamless combinations.

Accordingly, this concept explicitly acknowledges that the Army will conduct operations throughout the spectrum of conflict, including unconventional and irregular warfare. Military history confirms that restricting force design to a narrowly defined range of threats increases vulnerability and risk when the force is compelled to respond beyond that range. For example, focusing solely on smaller-scale conflicts or irregular warfare, even though currently are more likely, discounts the ultimately more serious threat of powerful potential adversaries with competitive conventional capabilities.

Embracing such diverse requirements in a single overarching operational concept is not easy. The challenge is particularly acute for the Army, which inherently has the broadest utility across the conflict spectrum and typically provides the largest and most prolonged commitment of forces in both major theater war and smaller scale contingencies. This concept addresses major combat operations, but also explicitly addresses the additional requirements associated with conducting operations across the entire conflict spectrum.

Chapter 2. Implications of the Future Strategic Context

To meet the challenge of full spectrum dominance arising from the future operational environment (described in detail in Appendix B), the Army faces four key tasks:

- To address *traditional* challenges, the Army must extend mastery of major combat operations, not only for the conventional threats of today, but also for the daunting anti-access environments of tomorrow. Major combat operations are both a crucial responsibility and a primary driver of capabilities with the broadest utility across the entire range of military operations. Those capabilities include: strategic and operational mobility; advanced command, control, and information systems; precision weaponry, and force protection and sustainment.
- At the same time, the Army must broaden and deepen its ability to counter *irregular* challenges. In many situations, the combination of traditional and irregular threats will present the most demanding challenges to military effectiveness. However, because the nation cannot afford two Armies, the Army must meet this requirement largely by increasing the versatility and agility of the same forces that conduct conventional operations.
- To preempt *catastrophic* threats, the Army must continuously advance its expeditionary response capabilities to rapidly project forces and maneuver decisively in order to deter the use of or destroy WMD. The Army must advance its ability to maneuver over both global and theater distances with minimum reliance on predictable, vulnerable deployment transition points (intermediate staging bases) or ports of entry.
- To prepare for *disruptive* challenges, the Army must maintain and improve a range of hybrid capabilities, minimizing the potential for single-point strategic surprise and failure. It must also develop the intellectual capital that will power a culture of innovation and adaptivity, our most potent response to disruptive threats.

2-1. The Human Dimension. The Army has always relied heavily on the intrinsic quality of its Soldiers and leaders. That reliance will only increase in view of the greater complexities of the 21st century. Although advanced technical capabilities are indispensable to force transformation, leaders and Soldiers will remain the centerpiece of Future Force formations. Exploiting the full potential of tomorrow's technical capabilities will require an unprecedented breadth and depth of technical and tactical skill, individual and organizational adaptability, and personal initiative and creativity.

The significance of *knowledge* - the most human aspect of future operations - can hardly be overemphasized. All joint and service concepts postulate higher levels of knowledge as a fundamental condition of effective future operations. Knowledge-building must begin well before conflict, and continue throughout, as the indispensable prerequisite to effective employment of joint capabilities. The need for knowledge includes, but is not limited to, achieving a common operational picture and the shared situational understanding needed for effective synchronization. It also encompasses understanding and appreciation of the cultural,

ethnic, political, tribal, religious, and ideological factors influencing the behavior of enemies, allies, and neutrals.

While acknowledging the importance of better knowledge, this concept does not assume the achievement either of perfect knowledge or continuously pervasive situational understanding. Instead, it explicitly recognizes the need to be able to act effectively, even when uncertainty exists. Anticipating the second- and third-order effects of action under those conditions and avoiding unintended consequences are important, but difficult, tasks.

2-2. Speed and Simultaneity. Initially, the advantages of time and space will typically belong to the adversary. Rapid strategic response permits the U.S. joint force commander to begin immediately to neutralize those early advantages. This race against time to establish dominant military capability in a theater of operations is critical to both the ultimate success and duration of any joint contingency operation.

The future joint operational environment (JOE) clearly places a rising premium on speed at every level of operations. At the strategic level, speed strengthens the ability of the National Command Authority and joint force commander to deter conflict, preclude certain enemy options, and limit conflict escalation. At the operational and tactical level, speed and simultaneity increase deployment momentum and enable more rapid seizure of the initiative through concurrent force flows and immediate employment of arriving forces, creating dilemmas for an adversary when the joint force is able to threaten him at multiple locations throughout the theater. Rapid, simultaneous action also allows commanders to respond rapidly to opportunity or uncertainty and to employ capabilities before an adversary has time to adjust, compelling him to react rather than initiate. Speed and simultaneity will enable U.S. forces to more effectively control each phase of a campaign or conflict, dramatically improving prospects for success.

Two cautions apply. First, especially at the operational and tactical levels, factors ranging from political constraints to geography will always govern how rapidly forces move and fight. In some circumstances, for example, where information is limited, prudence may require commanders to operate more deliberately than they might otherwise prefer. At the same time, simultaneity incurs risks and is sensitive to the scale of the theater, the forces available, and above all, the behavior of the enemy. In most cases, therefore, successful campaigns will combine sequential and simultaneous operations.

Second, capable and determined adversaries with powerful military forces, large populations, and extensive territory, seldom can be defeated quickly. Against such adversaries, it is rarely possible to deploy, establish conditions for success, and achieve decisive results within the theater in a single simultaneous application of military power. Adaptive enemies may also adopt strategies intended deliberately to protract campaigns and conflicts. Even in conventional war, victory may require sequential operations and protracted campaigns; irregular warfare is even more likely to do so.

In all cases, achieving victory in protracted conflicts will require sustained, multidimensional campaigns - not just the defeat of an enemy's military forces, but also the conduct of effective stability and reconstruction operations to permit political resolution of the conflict. Typically,

that will require occupying territory, controlling people, and managing civil resources over extended periods of time. Only land forces can accomplish such tasks.

2-3. Homeland Security. The ability of our adversaries to move information, funds, and capabilities via a global economic system exposes the U.S. homeland to an unprecedented level of threat, a threat exacerbated by the open nature of U.S. society. Elements of the homeland that support projection of military forces - or key points with particular symbolic value - may be targeted with catastrophic or disruptive capabilities, if available to our enemies. Military forces will seek to deter or preempt such attempts at their point of origin, on their approaches to the U.S. homeland, and within the homeland itself, in cooperation with designated authorities. In addition, those military capabilities that support overseas deployments, establishing basic services and sustainment in an expeditionary environment, will be equally useful in support of civil authorities in the management of the consequences of homeland attacks.

2-4. Multidimensional Operations. Historically, military operations on a single line are always vulnerable. At best, they produce expensive victory through attrition. At worst, they invite a clever enemy to economize where he is threatened and exploit the resulting freedom of action to attack elsewhere. As advanced military capabilities proliferate, and as the physics of the battle area become more complex, the penalties associated with one-dimensional operations will increase.

Future operations are more likely to be decisive if they confront an enemy simultaneously on multiple lines, in multiple ways, and against multiple points of vulnerability. Future combatant commanders will need to conduct integrated strike, maneuver, and information operations with powerful joint and interagency teams of ground, space, maritime, air, and special operations forces (SOF). Such teaming multiplies enormously the combat power of each component, deprives the enemy of the freedom to focus his own efforts, overloads his planning and coordination mechanisms, and compels him to expose his forces to new threats in the effort to evade others.

From a strategic perspective, joint multidimensionality is essential to modulating the application of military force to accommodate shifting political objectives. By virtue of their inherent versatility, land forces provide the joint force commander the broadest set of options and permit the most discriminate application of force over space and time. This modulating quality is particularly important in smaller scale contingencies, in which the commander must be able to balance destruction with control and lethal with nonlethal effects.

2-5. Interagency Collaboration. In complex conflicts involving ethnic, religious, or ideological hostilities, combat operations alone may not achieve strategic resolution. If diffused and networked adversaries seek to defeat the U.S. by other than conventional means, victory may prove elusive regardless of how effectively combat forces perform. In such contests, military operations may be essential to producing conditions permitting resolution, but, to ensure success, the U.S. must integrate all instruments of national power - diplomatic, military, economic, and informational - to resolve the conflict.

However, no significant improvement can be expected without frank recognition of the many serious obstacles that exist, beginning with the broad diversity of agencies, each having its own organizational culture, hierarchy, bias, unique perspectives, and misperceptions regarding other organizations. The lack of common capabilities, training, and terminology also poses hindrances to interagency integration. Achieving it routinely implies a long-term commitment by the military and its interagency partners, a commitment the Army can support, but which it cannot alone assure. It remains to be seen if cooperative efforts alone will be sufficient to achieve better integration or whether a supra-authority of some form will be required to institute required changes.

In addition, the future joint force must also explore how to respond to a similar, but more complex, challenge: effective cooperation with international, private, and nongovernmental organizations (NGOs), which have become ubiquitous in recent conflicts. Their presence in the battlespace can as easily hinder as accelerate the achievement of success.

2-6. Multinational Operations. In conflicts more characterized by ideological disputes than nation-state combat, participation by coalitions will be frequent and increasingly dynamic, but hindered in their formation by differing perceptions of the threat. Managing this tension will require extensive engagement with regional partners, whose response to U.S. initiatives will often be situationally-based. Effective harmonization will become more difficult in the future, especially given the trend toward assembling *ad hoc* coalitions to deal with crises. Nevertheless, an imperative exists that the future joint force improve its ability both to exploit the strengths that multinational partners contribute to the coalition (for example, regional and cultural expertise) and mitigate the limitations that may exist as a result of differing levels of modernization. While solutions to this challenge are beyond the scope of a Service concept, five observations are pertinent:

- During the period addressed by this concept, only relatively modest overall improvement of coalition integration can be expected, even among America's closest military allies. Even discounting political and cultural obstacles, it will be unreasonable to expect seamless interoperability without comparable capabilities.
- Given that reality, the joint force, especially the Army, must be organized, trained and equipped to accommodate the strengths and limitations of our multinational partners, separating responsibilities geographically, and where politically acceptable, employing division of labor among battle tasks and functions.
- Integration efforts will be especially beneficial in the areas of information sharing. However, commensurate requirements for multilevel security, collaborative planning, and common data standards must be resolved.
- The use of liaison teams, flexible technical command and control (C2) interfaces, and leaders trained and experienced in multinational operations will continue to be relevant.

- Finally, because most potential coalition partners are unlikely to possess significant air, sea, or space capabilities, the primary need will remain the integration of land forces. The Army's need for the associated integration resources will continue to grow.

2-7. Technology and Competitive Learning. While the evolution of technology has a well-understood impact on operational concepts, the continuous learning competition between the U.S. and our future adversaries will equally shape ideas on future warfighting.

Technology. Although impossible to forecast perfectly, technology advances are expected to introduce the following broad changes to combat operations for the U.S. and advanced adversaries:

- Improved sensors, sensor fusion, communications, and knowledge networking are expected produce higher levels of information sharing, enabling more effective application of combat power, decentralization, and noncontiguous operations.
- Improvements in battle command capabilities and staff processes will underpin information and decision superiority, improve anticipatory planning, permit continuous assessments, and enable better, faster decision making.
- Advances in intelligence, surveillance, and reconnaissance (ISR), precision, and lethality will result in engagements at greater ranges, with greater effects, and lead to more rapid tactical decision, in turn permitting tactical units to transition without pausing to subsequent engagements.
- Improvements in system durability and reliability, fuel efficiency, and precision munitions will reduce sustainment demands and sustainment infrastructure, and extend the duration of operations prior to replenishment.
- Advances in command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), stealth, and mobility will combine to enable transition to a force protection and survivability model no longer as dependent on the heavy armor and passive protection that characterizes modern mechanized forces.
- Improvements in operational agility, mobility, and long range fires will enable formations to act with strike and maneuver throughout the enemy's depth.
- Capability advances across the domains described above will permit the design of smaller units with combat capabilities exceeding those of current forces.

Competitive Learning. Competitive advantage may erode faster than at any point in history. Agile competitors, with nothing to lose and a burning desire to win, can innovate in extremely disruptive ways. Between now and implementation of this operational concept in the 2015-2024 timeframe, there will be widespread, competitive learning between the U.S., its partners, and their future adversaries. Wargaming, experimentation, and operational employments will be

closely watched in order to estimate future capabilities and vulnerabilities. As potential adversaries develop new capabilities, their employment options will naturally expand. For example, the same information technologies benefiting U.S. force development are equally enabling to potential adversaries of all types, including terrorist groups. Because they may not be constrained in the same way as U.S. forces, such groups may have even greater freedom to experiment with emerging technologies than do most military organizations. U.S. forces must overcome the natural propensity to mirror-image and consciously prepare for adversaries who are neither predictable, nor easy to fix within recognizable patterns. Even where the U.S. can observe an adversary's preconflict behavior, it is likely to change significantly once joined in battle. The advantage in this kind of dynamic environment will go to the competitor who most effectively learns and adapts.

Chapter 3. The Joint Framework for Future Operations

Because Army forces will always conduct operations as an integrated component of a joint force and will depend on the capabilities embodied within the joint force for its overall effectiveness, this concept is nested within the family of approved and emerging joint concepts, beginning with the Joint Operations Concepts (JOpsC).¹ In addition to the JOpsC, the concept reflects the strategic and operational purposes described by the approved joint operating concepts as well as the key functional principles under development in joint functional concepts. The Future Force is designed deliberately to execute emerging joint integrating concepts as an interdependent land component of the joint force.

3-1. Joint Organization. Joint operating concepts do not yet project substantial organizational change. Joint task forces (JTFs) will be formed for specific contingencies, as they are today, to conduct operations within a specified joint operations area (JOA). Forces are organized within the JTF, in accordance with joint doctrine, under functional joint C2 echelons or as subordinate service component commands. The combination of forces and number and size of subordinate joint C2 elements and component forces will vary for each contingency. Several new elements are currently being implemented to improve the JTF effectiveness, most notably the Standing Joint Force Headquarters and Joint Interagency Coordination Group.² In addition, considerable attention is being devoted to the requirement to build joint, capabilities-based force packages to improve responsiveness and relevance to the particular requirements of each contingency.

3-2. A joint Operational Framework. Although the joint conceptual framework will continue to evolve, the Future Force concept reflects a generic joint campaign, the elements of which can be inferred from the current JOpsC and major combat operations (MCO) joint operating concept, adapted into four overlapping phases: *Prepare and Posture, Shape and Enter, Conduct Decisive Operations, and Transition*. In any future campaign, the joint force commander (JFC) will seek to accomplish the assigned mission as rapidly, efficiently, and conclusively as possible within the policy constraints established by national authorities. To ensure that the campaign is linked firmly to theater strategy, the joint force commander must conduct an end-to-end analysis that incorporates stability operations as an intrinsic element of combat operations. The campaign plan must establish early, sustained control of the air, land, sea, space, and information domains, and define the key elements - *critical enemy capabilities, decisive points and centers of gravity* - against which to apply the relevant, appropriate and authorized elements of power. However, as noted earlier, the JFC must also be prepared to conduct extended operations when rapid decision is not attainable.

Prepare and Posture. Prior to the actual commitment of forces, the joint force and its constituent components will transition through an initial “*Prepare and Posture*” phase of varying duration, depending on the extent of warning. Activities typically will include: the formation of the joint headquarters (HQ), its components, and the C4ISR infrastructure required to support them; integration of coalition formations; development of force and sustainment flows; predeployment positioning of forces and logistical support; integration of reserve component (RC) forces;

¹ Joint concepts, including the JOpsC, continue to evolve and will be accounted for in concept refinement.

² Other joint organizational initiatives under study include joint theater logistics and joint intelligence and information superiority structures.

negotiation with host nations; and arrangement of necessary overflight and basing rights. If not already begun, the *operational net assessment* (ONA), on which the campaign will depend must begin during this preconflict phase, then continuously refined throughout the campaign. The duration of this phase will often affect subsequent campaign phases.

Shape and Enter. The initial period of conflict is extraordinarily important with respect to influencing the ultimate outcome and duration of conflict. Thus, in peacetime, each regional combatant commander, as directed by national authorities, conducts an integrated set of military activities intended to help shape the regional security environment over time.³ While those activities cannot guarantee regional stability, they can at least set more favorable conditions for commitment of U.S. forces, if conflict is unavoidable. If a crisis emerges and forces are committed, the joint force commander must transition from shaping the security environment to shaping the battlespace. Exploiting advances in strategic responsiveness, the joint force commander shapes the battlespace and conducts entry operations to preclude achievement of initial enemy objectives and establish conditions that permit rapid transition to decisive operations. Key joint-shaping actions include:

- Overcoming enemy anti-access strategies - a complex, critically important set of tasks involving all components within the joint force.
- Continuing efforts to establish the required C4ISR and logistical infrastructures, enabling rapid establishment of effective battle command, information superiority, and comprehensive situational understanding.
- Immediate, sustained attacks against key enemy capabilities to constrain the enemy's freedom of action, extend U.S. operational influence, and begin the process of paralysis and disintegration.
- Building on preconflict planning and stage-setting, immediate initiation of information operations (IO), closely integrated with diplomatic, political, economic, and overt military actions, to deny the enemy external support and erode his will to fight.
- Uninterrupted, continuous flow of land power into the area of operations, achieving a deployment and employment momentum that allows the enemy little time to adjust plans, reconfigure forces, or reconstitute.

Conduct Decisive Operations. Decisive military operations achieve the military objectives of the campaign. They succeed by attacking both an enemy's will and means to resist, imposing conditions that the enemy cannot reverse. They leverage both applied force and potential force; by inflicting, or threatening to inflict, costs that the enemy is unwilling to bear, they may compel him to cease resistance. In the face of refusal to cease resistance, decisive operations destroy his capabilities to the extent that it is no longer physically possible for him to continue fighting

³ These well-known activities build partnerships with indigenous militaries and/or security forces through multinational military exchanges and training exercises, military support to friendly states, demonstrations of U.S. resolve and interest, forward presence activities, etc.

However, decisive operations that achieve military campaign objectives do not necessarily resolve a conflict. Campaign objectives may be more limited than regime change or the outright destruction of an enemy's military forces. In such cases, decisive operations seek to compel the enemy to accept conditions allowing a negotiated resolution of the conflict. Decision in such cases actually may take longer to achieve because of restrictive rules of engagement, or may require maintaining stability through protracted military operations as a precondition for political resolution. In either case, final decision will often depend more on the successful application of the other elements of power than on military action.

Decisive operations are based on the rapid, integrated, and near simultaneous application of forces throughout the area of operations, enabled by continually updated situational understanding. Across the range of military operations, the JFC seeks to combine destruction, dislocation, and disintegration to achieve defeat (see Figure 3-1). The centerpiece of this phase is a series of simultaneous joint offensive operations distributed throughout the JOAs designed to dismantle the enemy's defense.

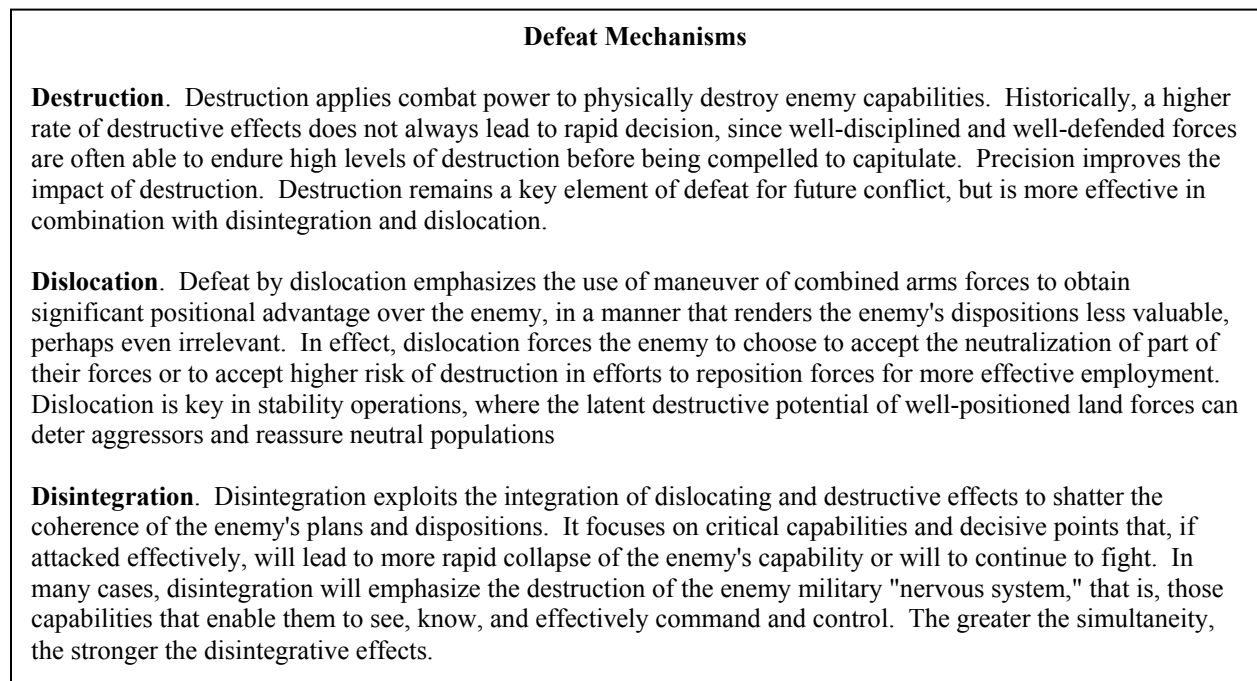


Figure 3-1. Defeat Mechanisms

Within this system of rapid joint and combined arms offensives, the combination of all-source precision engagement and dominant position by ground forces is critical to the enemy's destruction, dislocation, and disintegration. The achievement of dominant position threatens enemy decisive points and centers of gravity. Precision engagement compels the enemy to disperse, avoid movement, and seek sanctuary. Failure to reposition makes him vulnerable to piecemeal destruction; conversely, should the enemy attempt movement on any significant scale - whether to attack or defend more effectively - he exposes himself more fully to fires. Decisive maneuver combines movement and precision engagement to pose a multidimensional threat that the enemy cannot easily escape or counter.

In irregular warfare, the defeat mechanisms of dislocation and disintegration are more complex and the opportunities to conduct direct destruction of key capabilities are less frequent. Nonetheless, the requirement for selective destruction of key adversary capabilities, disintegration of the coherence of their organizations (and their popular appeal), and dislocation of their position - particularly their informational position vis-à-vis the population - are key considerations for irregular warfare in general and stability operations in particular.

Transition. As the campaign proceeds and the enemy's ability to control terrain and maneuver freely diminishes, the complexion of the battlespace changes. To deny the enemy sanctuary, deprive them of resources with which to reconstitute, and diminish popular support for continued resistance, friendly forces must secure the ground from which the enemy was ejected. The joint commander must expect to routinely conduct stability operations concurrent with combat operations, requiring the joint force, at a minimum, to control civilian movement, protect the populace, and safeguard critical infrastructure. Essential tasks may also involve housing and feeding refugees, furnishing medical care, enforcing civil authority, and repairing municipal facilities. Conducting these operations will require changes in both the missions assigned to components of the joint force and their functional composition.

As noted above, decisive military operations achieve campaign objectives, but do not necessarily signal the termination of military operations. Strategic objectives may entail multiple campaigns, and the nature of follow-on operations will not be uniform. In Desert Storm, Iraq's surrender led to a suspension of coalition ground operations and the rapid redeployment of ground forces, while significant air operations continued for years to control no-fly zones. In contrast, defeat and disintegration of Iraqi military forces in Operation Iraqi Freedom (OIF) was followed by an essentially new campaign to defeat the insurgency that erupted in its wake, a campaign wholly different in character from its predecessor.

As a practical matter, such follow-on operations cannot always be avoided and they are subject to U.S. defense policy, longer term strategic objectives, and the enemy's own actions. In all cases, joint force commanders must consider the transition from combat to stability missions as a routine requirement of their campaign that must be linked seamlessly to other activities within the overall campaign. They must also recognize that failure to manage that transition successfully can impede or even negate altogether the success of major combat operations and ultimately the achievement of the strategic aim.

3-3. Joint Interdependence. The synchronized employment of land, air, sea, space, and SOF, therefore, provides the joint commander with the widest range of strategic, operational, and tactical options. Although each Service contributes its own unique capabilities to the joint campaign, each dominating its own environment, their operational and even tactical interdependence is critical to overall joint force effectiveness. *Joint interdependence* is achieved through the deliberate reliance of each Service on the capabilities of others to maximize its own effectiveness, while minimizing its vulnerabilities. Key joint interdependencies include:

- Joint Battle Command. Integrated joint battle command/C4ISR capabilities to gain information superiority, share a common operating picture (COP), enhance joint-integrated information operations, and improve the ability of joint force and component commanders to plan, execute, and assess operations.
- Joint Force Projection. Advanced strategic and operational lift capabilities and improved automated planning processes to facilitate strategic responsiveness and operational agility within the battlespace.
- Joint Air and Missile Defense. A comprehensive joint protection umbrella, extended to regional allies, that includes air and missile defense, provides security of ports of debarkation, and enables uninterrupted force flow against diverse anti-access threats.
- Joint Sustainment. Integrated joint sustainment that reduces redundancies without sacrificing robustness, increases efficiencies, provides strategic-to-tactical distribution, and minimizes the logistical footprint in theater.
- Joint Fires and Effects. Integrated joint fire control networks that provide more effective application of all source fires and effects, from theater to tactical levels.

3-4. Land Power Relevance. The ultimate implications of both the strategic context and joint framework for the relevance of landpower can be summarized as follows:

- Control of the Conflict Environment. Achieving decision in conflict rests not just on the ability to destroy, but also on the ability to compel the enemy's defeat or compliance with political resolution of the sources of conflict. In almost every conflict, decision requires the indispensable capability to control terrain, people, and resources through either destruction, presence, or a combination of both. No other arm provides the capability to control the conflict environment in the same decisive and discriminate measure as landpower. Landpower also provides staying power and presents unique campaigning qualities for extended campaigns.
- Denial of Sanctuary. Landpower is the joint force commander's primary means to close with and destroy enemy forces in detail. Even in smaller-scale contingencies, the joint force must include the inherent capability to find and root out enemy forces in protected sanctuaries throughout the depth and breadth of the JOA. In this context, landpower is the only means, short of indiscriminate destruction, of denying the enemy sanctuary and destroying regime-ensuring forces in close engagements.
- Multidimensional Complementarity. Joint force commanders must have multidimensional forces that permit them to modulate the application of combat power to fit each environment, each phase of the conflict, and each operational situation. Although land forces control the land dimension, they must also facilitate the control of air, sea, and space dimensions, even in instances where land operations are not the centerpiece of campaign design.

- Coalition Integration. In a future operating environment, where multinational cooperation will be the rule, landpower is the natural integrator of most multinational operations across the spectrum of conflict, particularly with partners who do not possess significant air, sea, or space capabilities. The significance of land forces to peacetime shaping in each region of interest to the U.S. is elevated for the same reason.
- Deterrence and Preclusion. Expeditionary capability to intervene decisively with landpower is critical in order to deter conflict, preclude enemy options, and limit escalation.

The enduring relevance of land power in the projected strategic context and joint framework confirms the Army's two overarching strategies: to train and equip Soldiers and grow leaders; and to provide relevant and ready land power to the joint team.

Chapter 4. The Central Idea: The Army in Joint Operations

4-1. Military Problem. Future international security environments will be increasingly volatile, uncertain, and complex. Regional crises and conflicts will range from short duration, smaller scale contingencies to major combat operations on a theater scale. Complex adversaries, with significant capability to deny or hinder U.S. access to regions, will present significant obstacles to effective military intervention. U.S. joint forces, in cooperation with interagency and multinational partners, must generate full spectrum dominance, the ability to routinely confront and control dynamic combinations of conventional and unconventional threats. Thus, the Army will always conduct operations in a joint, interagency, and multinational (JIM) context. It must address fundamental operational requirements for both expeditionary agility and responsiveness and the staying power, durability, and adaptability to carry a conflict to a victorious conclusion, no matter what form it eventually takes.

4-2. Solution Synopsis. The Army Future Force will provide prompt and sustained combat power, fully integrated within the joint operational framework, to support global interventions across the range of military operations. The Future Force maneuvers operationally versatile, mission-tailored formations throughout the entire joint operations area to dominate the land dimension and confront the enemy with an overwhelming array of threats so rapidly and so violently that they are unable to cope effectively with them. Army operations enable the joint force commander to seize the initiative early, transition rapidly to decisive operations, sustain operations through multiple campaigns, when required, to achieve strategic objectives, and maintain stability thereafter to "Win the Peace" over the long term (see Figure 4-1). The Future Force will apply adaptive combinations of seven key operational ideas across the range of military operations:

- **Shaping and Entry Operations** shape regional security conditions and – if forces are committed – shape the battlespace, set conditions for decisive maneuver, and seize the initiative, throughout the entire campaign. Use of multiple entry points will help overcome enemy anti-access actions, enhance surprise, reduce predictability, and - through the conduct of immediate operations after arrival - produce multiple dilemmas for the enemy.
- **Operational Maneuver from Strategic Distances** to a crisis theater will enable the force to deter or promptly engage an enemy from positions of advantage. Employing advanced joint lift platforms not dependent on improved ports, the Future Force will deploy modular, scalable, combined arms formations in mission-tailored force capability packages, along simultaneous force flows, to increase deployment momentum and close the gap between early entry and follow-on campaign forces.
- **Intratheater Operational Maneuver** by ground, sea, and air will extend the reach of the joint force commander, expand capability to exploit opportunities, and generate dislocating and disintegrating effects.
- Once the initiative is seized, the Future Force combines its multidimensional capabilities in **Decisive Maneuver** to achieve campaign objectives:

- *Simultaneous, distributed operations* within a noncontiguous battlefield framework enable the Future Force to act throughout the enemy's dispositions.
 - *Continuous operations and controlled operational tempo* will overwhelm the enemy's capability to respond effectively, resulting in physical destruction and psychological exhaustion at a pace not achievable today.
 - *Direct attack of key enemy capabilities and centers of gravity* with strike and maneuver will accelerate the disintegration of the enemy operational integrity.
- The Future Force also conducts **Concurrent and Subsequent Stability Operations**, the former to secure and perpetuate the results of decisive maneuver *during* the campaign, and the latter to maintain stability, once enemy military forces are defeated, to ensure long-term resolution of the sources of conflict.
 - **Distributed Support and Sustainment** will maintain freedom of action and provide continuous sustainment of committed forces in all phases of the operation, throughout the battlespace, and with the smallest feasible deployed logistical footprint.
 - Throughout the future campaign, **Network-Enabled Battle Command** will facilitate the situational understanding needed for the self-synchronization and effective application of joint and Army combat capabilities, in any form of operation.



Figure 4-1. Operational Overview

Chapter 5. Future Force Operations in the Joint Campaign

In support of joint operations, the Army will employ adaptive combinations of the seven key operational ideas described below. These ideas are applicable across the range of military operations, although their manifestation in action will exhibit differences, depending on the nature of the specific operation conducted. They are not sequential and cannot be implemented independently of each other.

5-1. Shaping and Entry Operations. Army shaping and entry operations are an integral component of joint shaping/entry activities (see Figure 5-1). Through their peacetime support of regional combatant commander theater engagement activities, Army forces significantly shape the regional security environment. While such activity cannot guarantee regional stability, it can set more favorable conditions for commitment of U.S. forces, if conflict is unavoidable. If a crisis emerges and forces are committed, the joint force commander must transition from shaping the security environment to shaping the battlespace. Army operations shape the battlespace during the *shape and enter* phase of the joint campaign by:

- Overcoming enemy anti-access by direct actions of Army forcible entry and strike forces as part of joint efforts to destroy enemy anti-access elements.
- Destroying other key enemy capabilities (C4ISR and logistical structures) essential to enemy offensive operations or defensive integrity.
- Establishing essential C4ISR and logistical infrastructures within and external to the JOA, including early entry command posts (EECPs).
- Seizing key terrain and facilities required to support force flow and conduct of decisive operations, extend the area of influence, and dislocate enemy dispositions.
- Conducting information operations to gain and maintain information superiority.

Entry Operations. Commanders conduct entry operations under the protection of a rapidly established joint air and missile defense umbrella, shielded further from interdiction by means of air and maritime superiority that may be local, wide area, or theater-wide in scope. Carefully planned as springboards for early attack of key enemy capabilities, entry operations are supported by SOF, IO, joint fires and intelligence, ground-based precision fires, integrated sustainment, and other shaping actions to assure continuous operations. Deployment of EECPs ensures effective C2 capability to control these complex operations and exploit joint assets.

During any phase of the campaign, the Future Force will conduct joint forcible entry operations from strategic distances with mounted and dismounted forces, employing strategic assets (air and sea lift, joint precision fires, space-based C4ISR, and other enablers). It may also conduct forcible entry over operational distances, from forward operating bases or in-theater locations, using its force projection capabilities, such as heavy lift vertical take-off-and-landing aircraft (HLVTOL). In addition, Future Force combat forces may deploy *preemptively* to seize and

defend objectives critical to the enemy's own offensive plan, or to stabilize a situation if conflict appears imminent.

During this time in a campaign, conditions will require land maneuver forces to defend entry points to enable follow-on force flow and hold objectives critical as anchors or start-points for transition to offensive operations. Forcible entry tactical elements must anticipate and defeat successive attacks by conventional and unconventional forces. However, higher echelon Army combat support structures may not be fully in place. As a result, early entry maneuver forces must be able to draw on reinforcing and shaping support from air and naval forces, as well as from multinational partners that may already be engaged. Because these defenses occur during a time when sustainment flow must compete with force flow, it will be important that the tactical units committed early be particularly durable and place minimal demands on the logistical system.

Once entry is assured, commanders orchestrate the force flow to build mobile, lethal capability quickly and evenly, preventing gaps between early arriving forces and follow-on campaign forces. Combining multiple entry points and direct deployment to objective areas reduces vulnerability to enemy long range fires and compels the enemy to respond to many simultaneous threats.

Continuous Shaping Operations. Carried out with the routine integration of joint effects and resources, continuous shaping operations throughout the campaign(s) include efforts to:

- Develop the situation with both active and passive means and provide situational awareness and actionable information to subordinate elements.
- Protect land maneuver forces from enemy action during engagements and battles through the simultaneous attack of forces within objective areas, as well as against supporting enemy forces outside objective areas.
- Deny the enemy the capability to reinforce, resynchronize their efforts, maintain situational understanding, or exercise initiative.
- Disrupt enemy lines of communication.
- Enable land maneuver forces, through higher levels of standoff destruction, to finish engagements more rapidly, without prolonged reliance on decisive close combat assault, and transition to subsequent engagements without an operational pause.

In accomplishing all the above, ensure continuous freedom of action for Army and joint elements operating within the land domain.

Finally, the Future Force also *sets conditions for future operations* by: repositioning subordinate forces to dislocate enemy forces or secure positional advantage for subsequent operations; ensuring continuous sustainment and high operational tempo; seizing key terrain; and internally

retailoring subordinate forces to meet changing battlefield conditions, including subsequent requirements for stability operations.

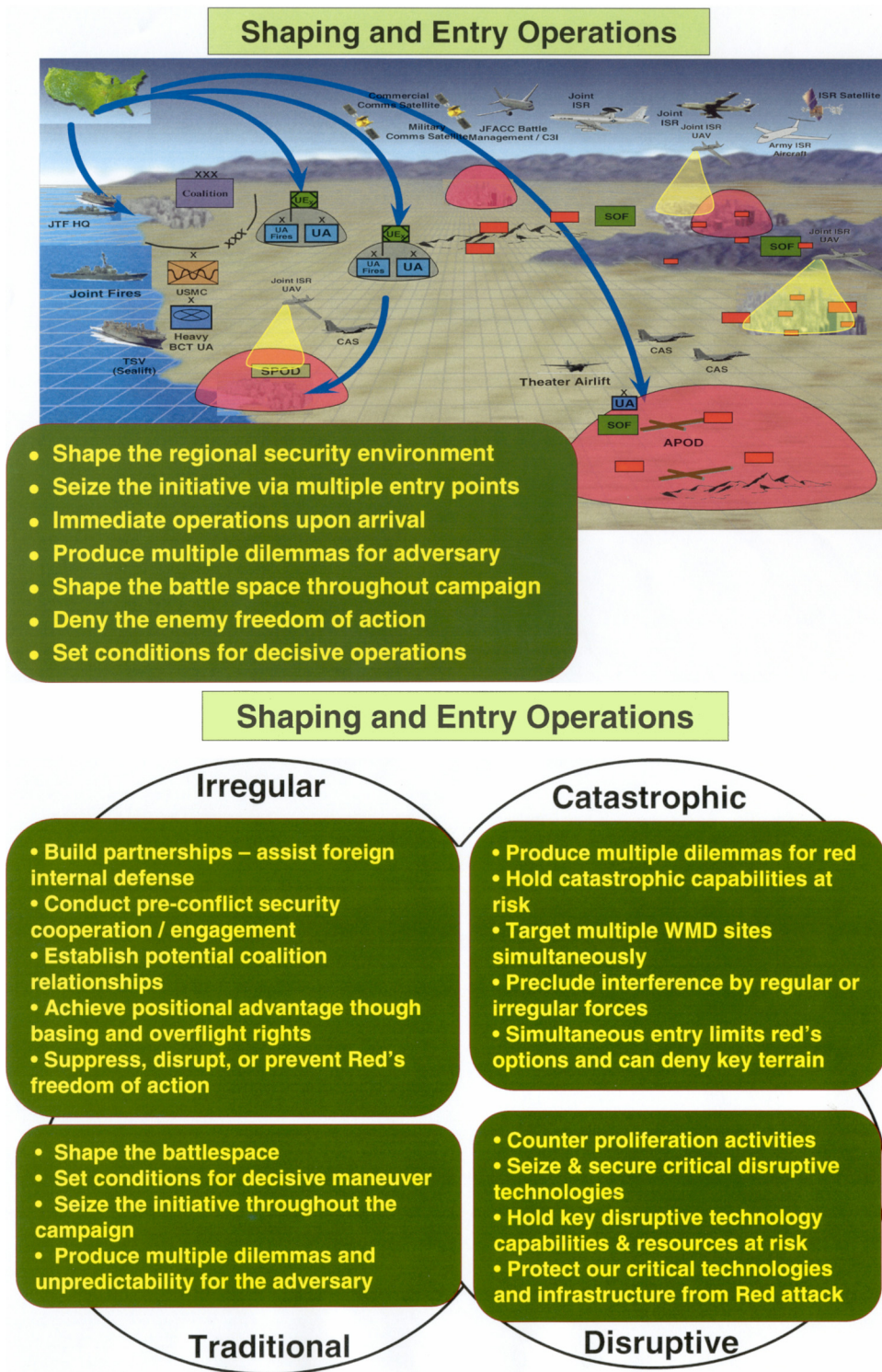


Figure 5-1. Shaping and Entry Operations

5-2. Operational Maneuver from Strategic Distances. During both *prepare and posture* and *shaping and entry* phases of a campaign, rapidly deployed ground formations strengthen the JTF's ability to deter conflict, limit its escalation, or preclude early enemy success, through occupation or seizure of strategic and operational positions of advantage that directly enable subsequent operations. Landpower-based flexible deterrent options (FDO) will often comprise the initial elements of this strategic maneuver (see Figure 5-2). The FDOs described below at once contribute to deterrence and help posture the joint force for rapid commitment to combat, if deterrence fails.

- Land-based theater air and missile defense capabilities help degrade enemy long-range air and missile anti-access threats and form a component of the protective umbrella under which entry and follow-on forces can safely enter the theater.
- Rapidly deployed C2, communications, and ISR organizations, fully integrated within the joint structure, strengthen readiness for immediate operations.
- Long-range precision surface-to-surface fires and aviation strike capabilities complement joint *counter-precision* and *counter-anti-access* capabilities.
- *Preemptive* deployment of land forces into key objective areas denies the enemy potential offensive options, protects key terrain and facilities, and secures ground from which further operations can be mounted. Where immediate entry into such objective areas is precluded for any reason, deployment of ground forces to nearby operating bases still may exert a significant deterrent effect.
- Preconflict deployment of Army special operations forces support the initial information campaign and create conditions favorable for U.S. intervention. These forces also conduct early coordination for effective coalition operations.

Consistent with its expeditionary posture and mind-set, the Future Force will execute a *Deploy=Employ paradigm* with units capable of immediate employment upon arrival. Timely deployment of the right forces to the right objective areas can preclude an enemy from setting defenses, diminish his maneuver options, and deny access to key terrain. As the theater matures, forces will often flow from locations outside the theater directly into objective areas, rather than through intermediate staging bases or initial lodgment areas.

To conduct maneuver from strategic distances, Future Forces organized in lighter, smaller, but more capable force packages, will exploit all available air and sea lift, both military and commercial, including advanced military lift platforms, such as austere access high speed sealift (AAHSS), super-short-takeoff-and-landing (SSTOL) aircraft, and theater watercraft, such as the joint high speed vessel (JHSV). Fielded in sufficient numbers, these advanced platforms will enable deploying forces to avoid vulnerable ports and airheads and deploy in combat-ready unit configurations to carefully selected positions of advantage in a matter of days, rather than weeks. They further permit the joint force commander to accelerate force flow, reduce the enemy's ability to deny physical access to the theater, and increase the potential for operational surprise. The Army also will continue to preposition stocks and supplies both ashore and afloat to support initial and sustained force projection, although their location and composition undoubtedly will

vary from theater to theater. Future Force integration with joint seabasing capabilities will further improve responsiveness and operational flexibility.

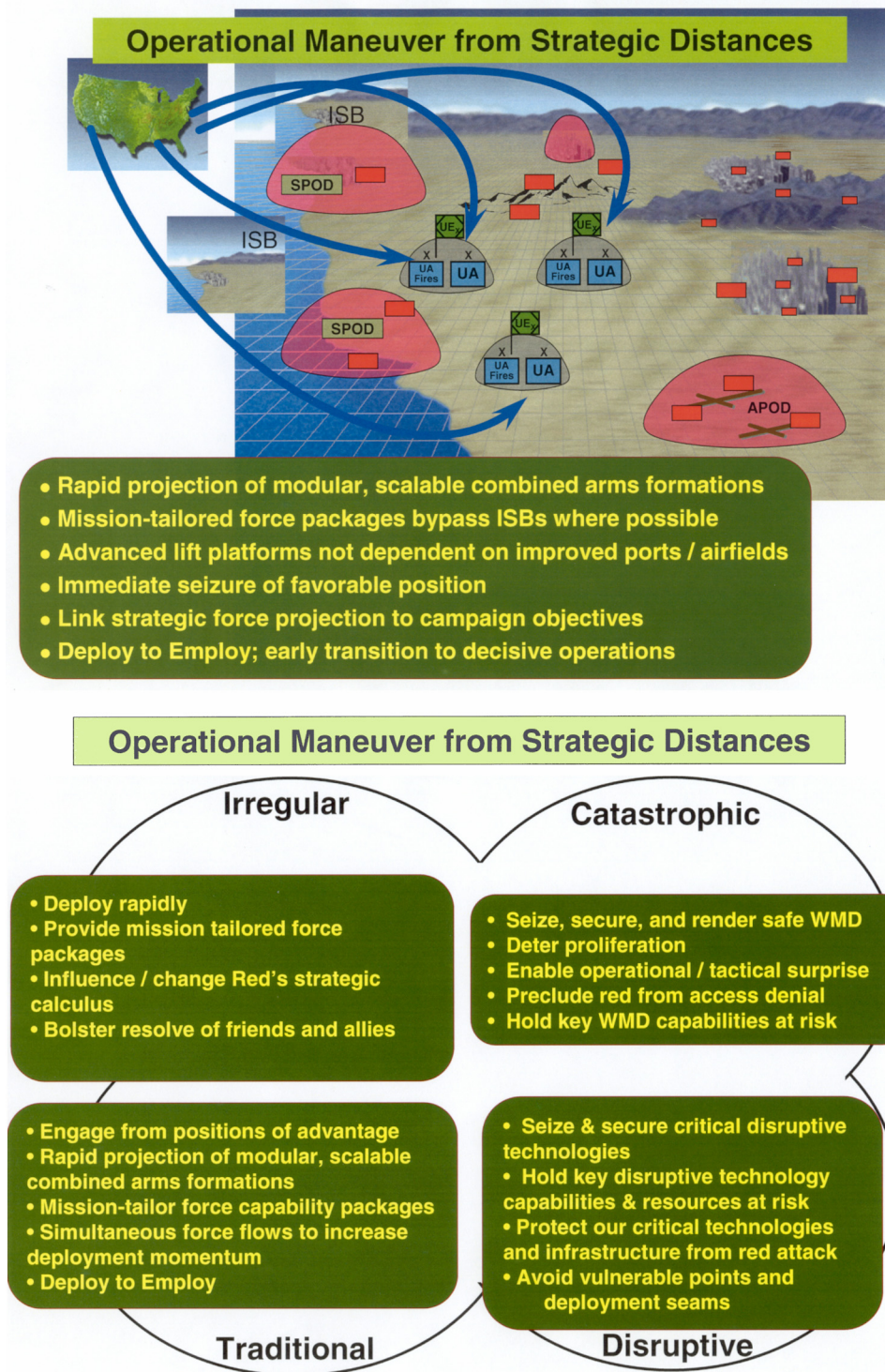


Figure 5-2. Operational Maneuver from Strategic Distances

Developing the situational understanding required to conduct operational maneuver from strategic distances begins at home stations, accelerates during initial entry, and continues throughout deployment. Its immediate goal is sufficient knowledge of entry conditions, to ensure that strategic maneuver produces not a strategic meeting engagement, but instead, the deliberate introduction of forces tailored and ready for immediate operations against preplanned objectives. Enroute “knowledge-building,” and continuous connectivity of deploying forces “from fort to foxhole” with forces already in the theater, will be essential, as well as the integration of the sustainment capabilities needed to avoid an operational pause.

5-3. Intratheater Operational Maneuver.

The Future Force executes intratheater operational maneuver (see Figure 5-3) to extend the reach of the joint force thereby enabling the joint force commander to respond to opportunity or uncertainty, isolate portions of the battlefield, exploit success, and accomplish key campaign objectives. Operational movement of the force by ground, sea, or air can secure positions of advantage to destroy key capabilities and forces, extend tactical reach, achieve surprise, preemptively seize key terrain, overcome or avoid difficult terrain, accelerate the advance of the overall force, and block enemy forces. Such operational maneuver repositions forces in depth for immediate attack, substantively *changing the geometry of the battlespace* to U.S. advantage, and increasing complexity for the enemy. It also potentially exposes the entire enemy area of operations to direct attack, prevents resynchronization of enemy combat power, and denies reinforcement and sustainment. In all cases, forces must have the capability to reorient against follow-on objectives, with minimum delay. The process is repeated in rapid succession, and in concert with other ongoing operations, until enemy cohesion is destroyed beyond recovery.

Vertical maneuver of *dismounted* forces requires the dedication of organic and joint fires to support and protect, while other ground elements maneuver rapidly to exploit the positional advantage achieved. Vertical maneuver of *mounted* forces, employing SSTOL or HLVTOL aircraft, puts large areas at risk for the adversary and will often lead to rapid tactical decision, shortening durations of battle, and contributing to the more rapid disintegration of the enemy force. Forces must be able to assume the defense temporarily when executing vertical maneuver, until sufficient force is assembled to permit offensive operations, or until link-up with other advancing ground elements is achieved.

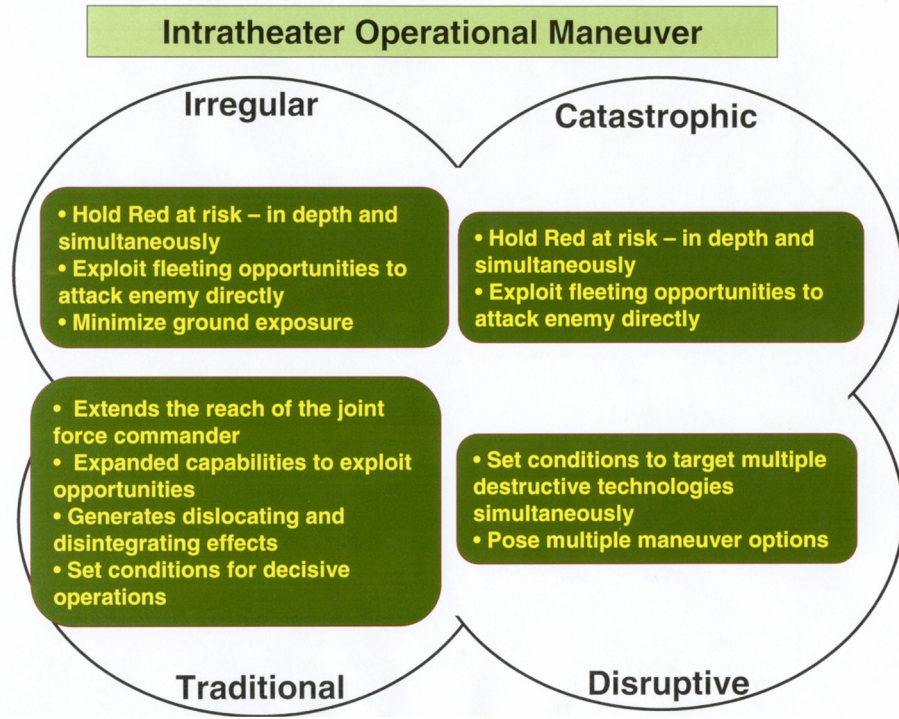
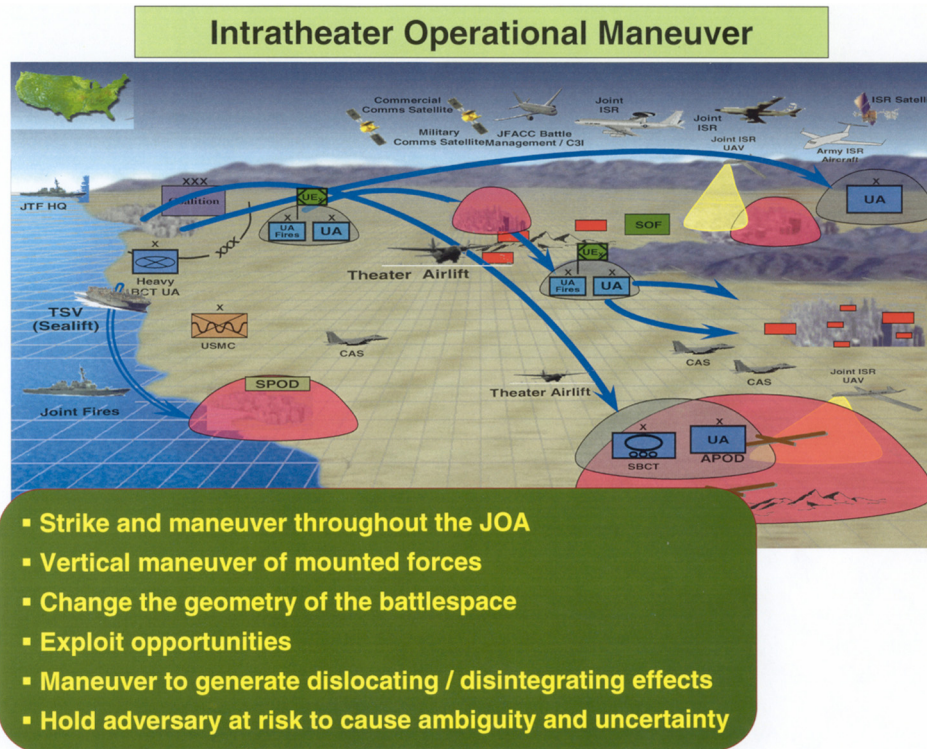


Figure 5-3. Intratheater Operational Maneuver

o5-4. **Decisive Maneuver.** Decisive maneuver achieves the operational tasks assigned by the joint force commander. Decisive maneuver (see Figure 5-4) will be characterized by:

*simultaneous, distributed operations; direct attack of enemy decisive points and centers of gravity; and continuous operations with controlled operational tempo.*⁴

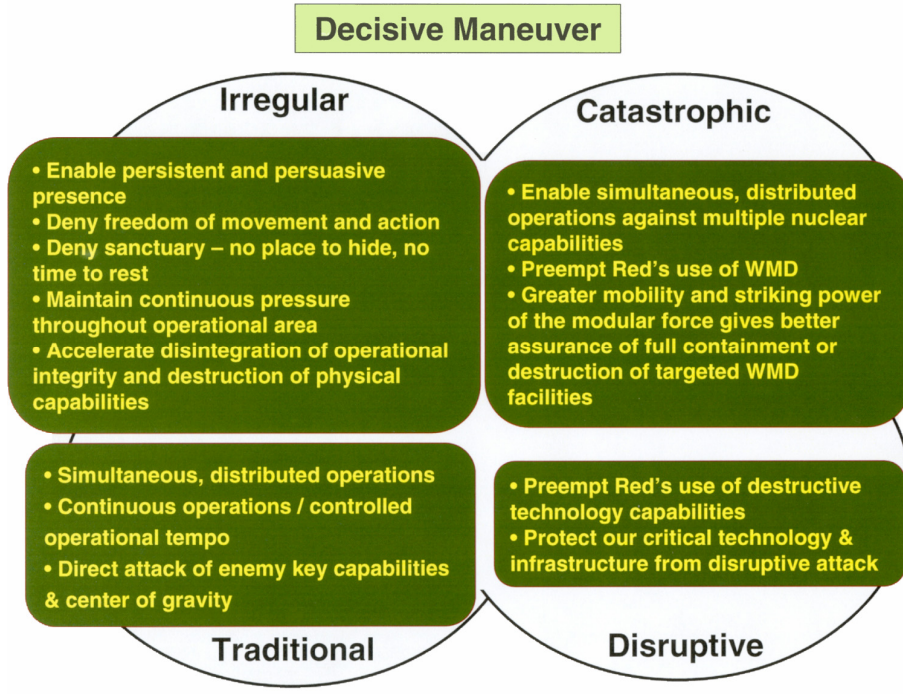
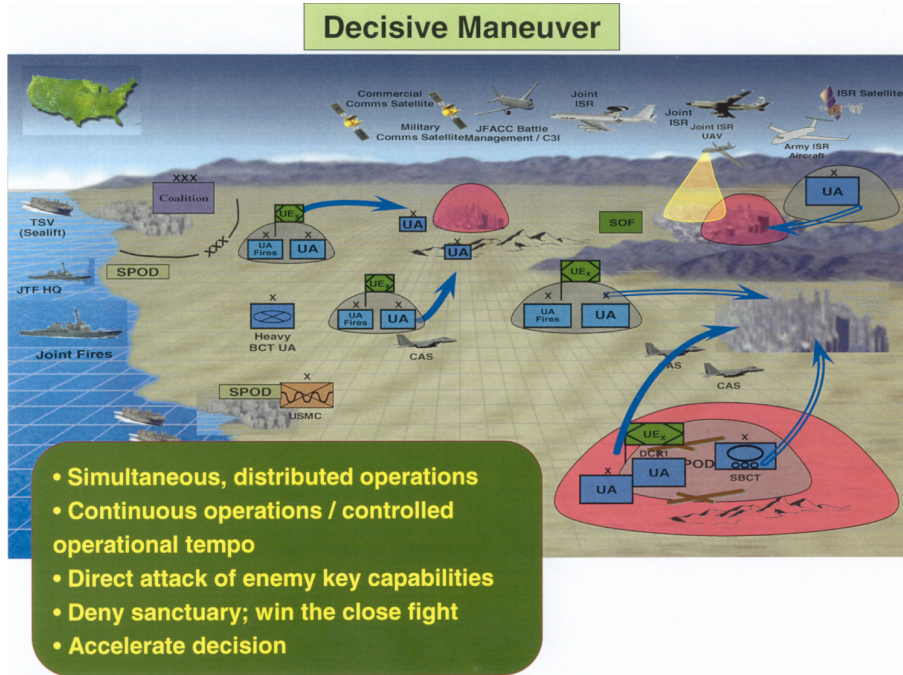


Figure 5-4. Decisive Maneuver

⁴ The forthcoming Army Operational Maneuver Concept will further develop these operational themes.

Simultaneous, Distributed Operations. As a force deliberately designed for decentralized, noncontiguous operations, the Future Force - if ratios of force to space permit - will conduct simultaneous operations distributed across the joint area of operations. Superior situational understanding, based on advanced C4ISR capabilities embedded at all levels, will enable ground commanders to operate noncontiguously, bypassing what is less important or non-threatening, to focus operations against the most critical forces and capabilities. Simultaneous engagement by air-ground maneuver elements employing future advanced lift, reconnaissance, and attack aviation assets, supported by joint fires and suppression of enemy air defenses, will allow Army forces to mass effects, without massing forces, and significantly expand its operational reach. Forces distributed throughout the battlefield act in concert to multiply the effects achieved, while their dispersion simultaneously reduces vulnerability to enemy counters. Collectively, these capabilities will reinforce the effects of fires and interdiction, present a set of multidimensional options to paralyze and overwhelm the enemy, and lead to rapid collapse of enemy forces.

Direct Attack of Enemy Decisive Points and Centers of Gravity. The Future Force will employ long-range fires and operational maneuver to directly attack enemy decisive points. These focused operations deprive the enemy of key capabilities essential to his defensive integrity and staying power, further accelerating collapse. A key element in this approach will be the depth of knowledge and situational understanding of the entire conflict environment that enables joint and Army commanders to accurately identify and link decisive points and centers of gravity operationally with concrete military objectives. *Mobile strike* operations at tactical and operational distances are one means of conducting direct attack. Like operational maneuver, mobile strike is a joint-enabled operation under the C2 of manned Army aviation focused on attack of key objectives and mobile, high-value targets such as enemy C2 elements, air defense systems, and mobile surface-to-surface missiles (SSMs).

Continuous Operations and Controlled Operational Tempo. Future Force commanders will conduct continuous operations with few significant pauses, creating and controlling an operational tempo that overwhelms the enemy's capability to respond effectively. High operational tempo and continuous pressure will seriously hinder the enemy's ability to regroup, reconstitute capabilities, or reconfigure forces to support new plans. The primary means of maintaining continuous pressure will be the cycling of brigade formations under operational level direction, based on synchronization of battle and logistical rhythms. Continuous operations will require innovative sustainment concepts and capabilities based on sharp reductions in sustainment demand, significant improvements in reliability, and refined procedures for accelerated throughput, battlefield distribution, and mission staging.

Close Combat. Ultimately, Future Force decisive maneuver is based on tactical success in close combat: the capability of ground forces to seize and control key terrain and to close with and destroy enemy forces. Close combat has one purpose: the defeat or destruction of enemy forces to decisively resolve the outcome of battles and engagements. Even in smaller-scale contingencies and stability operations, the Future Force must include the inherent capability to root out enemy forces in protected sanctuaries throughout the depth and breadth of the area of operations. Failing that outcome, lasting resolution of the conflict will remain in doubt. Thus,

Future Force units must retain capability to conduct decisive tactical combat to defeat the enemy in detail through a series of rapid, violent actions.

5-5. Concurrent and Subsequent Stability Operations. The Future Force will be called upon to conduct stability operations throughout a campaign, either concurrent as an integral component of major combat operations, subsequent to such operations, or even independent of them. Stability operations assume a variety of forms and combinations, presenting a range of risk, intensity, tempo, and complexity that varies over time and by region (see Figure 5-5). Some experimentation suggests that the nature of distributed operations during MCO, lacking the “mopping up” quality performed by follow and support forces in traditional contiguous operations, may well leave *more* potential “instability drivers” in place for the joint force to deal with after the MCO campaign.

Certainly, stability operations (and irregular warfare in general) will present significantly different operational requirements to the Future Force than MCO, requiring readiness to perform combat tasks with simultaneous execution of a wide array of non-combat tasks. They place an even higher premium on adaptive leaders, multifunctional units and soldiers, combined in dynamic mission tailoring. Future Force units must have embedded leadership and capability at all levels to integrate and synchronize the actions of joint, interagency, and multinational entities. Force composition must also account for commitment of significant military resources to reconstruction and nation-building. Mission tailoring and modular force structures must enable the rapid combination of capabilities to meet this expanded mission set, without loss of cohesion or effectiveness.

The main ideas of this operational concept apply across the range of military operations. Stability operations that have the potential to escalate rapidly, or lead to significant negative outcomes, require the capabilities for prompt response inherent within operational maneuver from strategic distances. The *principles* of shaping operations also retain relevance, even if the ways and means of their application may be more complex, expanding the effects more broadly into the political-social-economic realm. At the core of this challenge is the requirement to maintain *continuous pressure* (vice continuous operations) against hostile elements, such as terrorists or insurgents, to deny them freedom of movement and action over a more extended period of time.

The concept of simultaneous, distributed operations remains particularly relevant. Whether during or post MCO, stability, and support operations will likely be conducted in an operational area characterized by widely separated units and limited host nation capabilities. In both cases, the faster and more effectively U.S. and coalition forces respond to security challenges, the less effort will be required to cope with them and the less likely that they will escalate to an intensity threatening the overall mission. Similarly, Future Force units, responding to stability and homeland security requirements, will capitalize on the same tactical unit agility and modularity and the same distributed sustainment system that underwrite combat operations. As with the latter, stability and homeland security operations must be anticipatory and they require the same ability to refocus security and support assets rapidly from one geographic location to another. The agility and operational reach envisioned within the ideas of intratheater operational

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maneuver of land forces clearly will be valuable in such distributed operations, and as a means of response to or preemption of irregular, catastrophic, or disruptive threats.

However, adversaries who refuse to engage may not be fully susceptible to U.S. efforts to apply overwhelming tempo, and they will retain some measure of tactical initiative, even though remaining largely on the strategic defensive. The defeat mechanisms of dislocation and disintegration will be harder to apply thereby demanding a more collaborative employment of all elements of national and international power. Adept leaders, armed with a broad range of skills and acute appreciation of the impact of cultures, must identify and engage elusive key capabilities and decisive points.

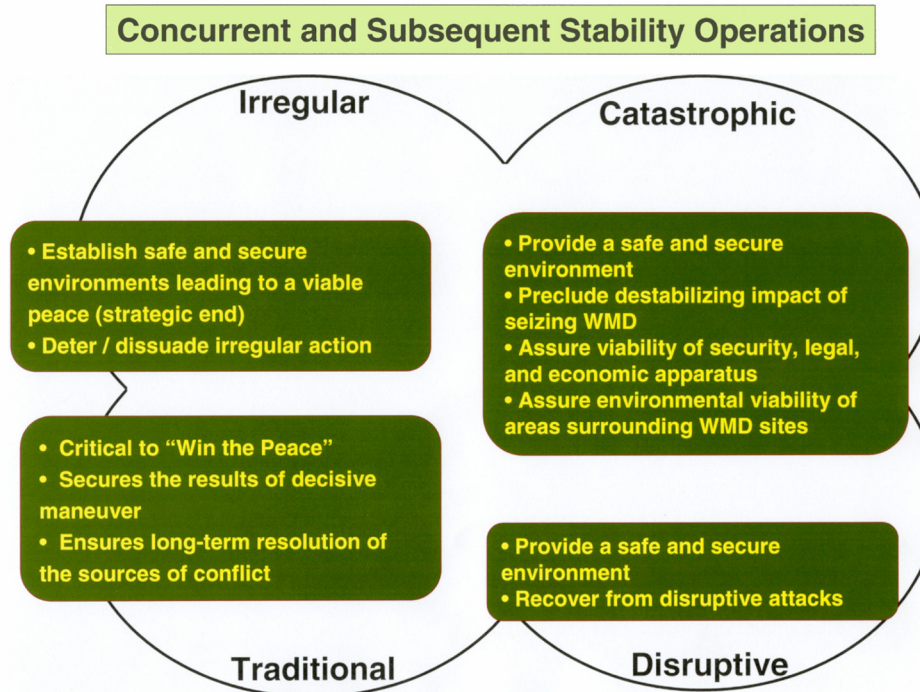


Figure 5-5. Concurrent and Subsequent Stability Operations

Stability and reconstruction missions may also dictate operations be conducted within a contiguous battlefield framework in order to enhance C2 and ensure security of bases, lines of communications, and populations. An alternative to the use of a contiguous framework is the

assignment of responsibility for stability and support on an area basis to security organizations specifically tailored and resourced for these purposes, with sufficient combat, combat support, and sustainment capability to minimize the necessity for reinforcement. Both approaches require further investigation. The significance of the challenge is elevated by another important feature of long-term stability operations; the vulnerability of the large numbers of contractors and government civilians, without whom rapid nation-building and reconstruction, as well as many of the support functions for committed military forces, would be at risk.⁵

At the end of the day, two factors are particularly important. First, the manpower strength of Future Force formations will be key to achieving the visible mounted and dismounted presence required to apply pressure against recalcitrant factions. Second, the ability of tactical forces to act with high situational understanding and precisely modulated violence will ensure the safety of the mission and underpin force credibility.

5-6. Distributed Maneuver Support and Sustainment. More than ever before, Future Force operational support and sustainment operations must be fully integrated, with battle, support, and sustainment rhythms executed in close harmony (see Figure 5-6).

Maneuver support. Integrated maneuver support helps shape the operational environment to protect and expand the Future Force's freedom of action. Relevant from strategic to tactical levels and across the entire spectrum of operations, maneuver support combines a variety of functional capabilities (military police; engineers; aviation; nuclear, biological, and chemical defense; etc.) to accomplish the following tasks:

Understand the battlespace environment. Maneuver support develops and disseminates information on the totality of the physical environment, including space, air, water, land, subterranean areas, local populations, and man-made structures, as well as a wide range of variable factors such as weather, light, natural and man-made hazards, and health threats. Combining this comprehensive understanding of the physical environment with other knowledge helps diminish an enemy's initial "home court" advantage.

Enable theater access. Maneuver support tactical and theater assets enhance and protect entry points to support deployment momentum. As deployment accelerates and units arrive, maneuver support units: expand theater infrastructure through rapid airfield construction and port enhancement; support onward movement; detect and eliminate hazards; and help provide the deploying force the situational understanding needed to maintain force flow and sustainment.

Provide assured mobility. Especially in an undeveloped theater, assuring mobility is prerequisite to achieving and sustaining force agility. Maneuver support elements improve and expand trafficability, enhance mobility in complex terrain, and eliminate obstacles. Support forces also assist in preventing the adversary from impeding friendly movement and shaping the terrain to his own advantage.

Deny enemy freedom of action. Maneuver support units further obstruct the enemy by shaping the terrain, rapidly emplacing self-healing minefields, and employing other obstacles,

⁵ As of early 2005, close to 50,000 government civilians and contractors were deployed in SWA.

multispectral obscurants, and a variety of other lethal and nonlethal means to fix, canalize, constrain, and block the enemy's tactical agility and freedom of maneuver.

Enable force protection and security. Future adversaries will present a wide range of conventional and unconventional threats to joint forces and their freedom of action. Applying maneuver support capabilities in force protection and security tasks on key deployment axes, in the noncontiguous battlespace or in direct support of decisive operations, will shape the battlespace to the advantage of maneuver commanders and mitigate the effects of enemy threats.

Engage and control populations. How the Future Force interacts with indigenous and refugee populations will significantly affect mission success. Maneuver support units, acting in concert with local authorities, multinational and interagency partners, and private organizations/NGOs will help minimize potential noncombatant interference in operations and mitigate the effects of combat on the civilian populace.

Neutralize hazards and restore the environment. Tasks in this area range from military construction and repair, to clearing mines and other obstacles, to decontaminating forces, equipment, and infrastructure.

Maneuver Sustainment. Future Force operations must artfully blend strategic and operational sustainment flows into the theater to provide continuous sustainment throughout the JOA, without requiring an extensive logistical buildup or risking a shortage-driven operational pause. They also must fulfill the Army's mandate to support other components of the joint force. Sustainment capability will determine what is feasible, when the force can fight, and how long it can sustain operations.

The *overarching goal* of Future Force sustainment is the continuous, precise, assured provisioning of deployed Army and supported sister Service forces in any environment, guaranteeing their ability to generate, maintain, and employ combat power throughout the campaign. Sustainment must flow through a fully integrated national-to-theater-to-tactical distribution system from early entry through conflict termination. This entails underwriting a deployment momentum that enables the joint force to seize the initiative quickly, achieve and maintain force dominance, and ultimately overwhelm the adversary. Such continuous sustainment presumes global resource management to exploit and integrate coalition, national, joint, Service, and civilian and contractor sustainment assets, both within and outside the theater, while amplifying the need for a unified joint theater logistics C2 structure.

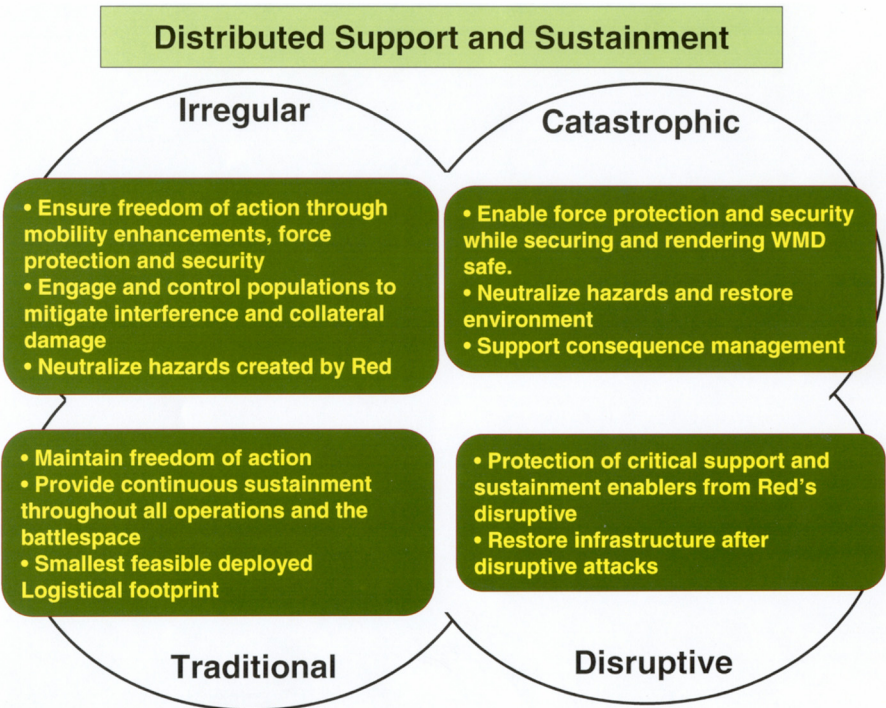
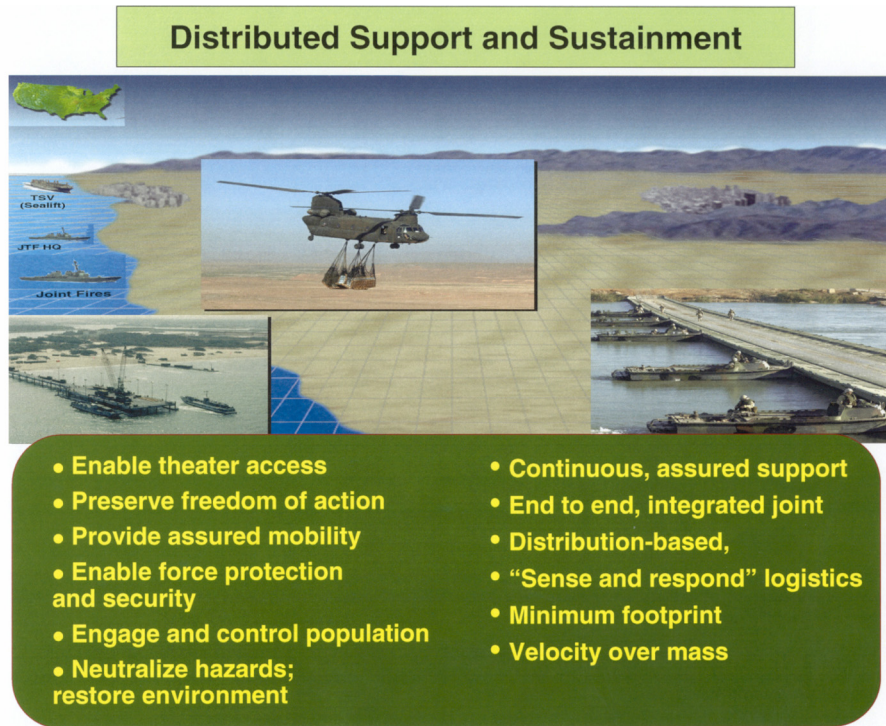


Figure 5-6. Distributed Support and Sustainment

Within this global framework, Future Force sustainment operations are grounded in *distribution-based logistics*. Distribution-based logistics emphasizes: velocity over mass; centralized management under unified command coupled with decentralized, multinodal/multimodal

execution; maximum throughput; minimum essential forward stockage; efficient multidirectional flows of stocks and supplies with in-transit visibility; mission-configured loads; real-time situational understanding and time-definite delivery⁶. Key among these features is *velocity over mass*, which visualizes replacing large inventories stockpiled in the theater with smaller but equally responsive inventories in motion through the distribution system. Certainly, the extent to which velocity can replace mass always will depend on theater conditions. Future Force sustaining operations must also resolve security and protection challenges associated with distributed operations and extended lines of communication across the joint operations area. Those challenges, and the Future Force's increased reliance on air mobility, will place a heavier burden than ever before on aerial sustainment. Advanced SSTOL and HVTOL aircraft will be essential to sustaining operations throughout the JOA. The inherent limitations of current fixed-wing platforms make them unsuitable for this role.

At the operational level, distribution-based sustainment must be continuous, but sensitive to the more numerous lines of communications, shifting operational priorities, and surge requirements associated with a distributed, noncontiguous battlespace. To cope with them, Future Force sustainment units must rely on the same level of situational understanding as the operational formations they support, allowing logisticians to anticipate operational commanders' priorities rather than merely reacting to them.

At the tactical level, sustaining operations typically will occur in pulses keyed to battle rhythms, in which committed forces are deliberately cycled into and out of battle for mission-staging and in-stride replenishment. Adjusting distribution, in accordance with these cycles and the evolution of the campaign, requires an adaptable distribution framework orchestrated at the operational level. The duration between tactical replenishments likely will increase, and tactical units' self-sufficiency must increase accordingly.

The Army will continue to support and enable the entire joint force through execution of JFC-directed responsibilities for logistics, ground lines of communication, water supply, engineering, control of prisoners of war, etc. In addition, the Army provides essential capabilities to the joint C4ISR structure, filling capability gaps for real time intelligence, human intelligence (HUMINT), combat assessment, and communications. Similarly, unique Army capabilities in the areas of aviation, health, military police, ground security, and construction further support the entire joint force in accordance with the commander's priorities. Overall, these Army capabilities will remain critical to the effective integration and operation of the joint force.

5-7. Network-enabled Battle Command. The conduct of simultaneous, high-tempo, noncontiguous operations, executed by Future Force formations at varying levels of modernization and distributed broadly across the area of operations, will place very high demands on Future Force leaders with respect to both the art and science of command. Commanding, controlling, and leading will require masterful commanders, staffs, and logisticians who fully understand the complexities of the emerging operating environment, as well as the highly-integrated joint, multinational, and interagency characteristics of full spectrum operations (see Figure 5-7).

⁶ Real-time situational understanding and time-definite delivery is key to enabling "Sense and Respond" logistics.

Network-enabled battle command leverages the *network effect*⁷, the exponential increase in the value of a network as the number of those using it increases. It extends the interconnectedness of headquarters - already significant - to the extremities of the force: individual Soldiers, weapons, sensors, platforms, etc. This extended connectedness in a networked, collaborative C2 environment can extend the benefits of decentralization - initiative, adaptability, and increased tempo - without sacrificing the coordination or unity of effort characteristic of centralization. Nonetheless, network-enabled battle command is commander-centric, vice network-centric.

The network effect enables information superiority and effective battle command. However, the struggle to achieve and maintain information superiority against a capable, creative adversary will be a contest, not a constant advantage to be taken for granted. Pursuit of information superiority with intensity and purpose, from predeployment through final decisive operations, is a key operational task. That pursuit will often require the Future Force to fight for information, particularly when confronting elusive and adaptive enemies in remote locations in which information from technical sources is inaccessible or incomplete. The force must also be prepared at any time to adapt operational plans and tactical methods to imperfect situational understanding.

To achieve information superiority, the Future Force will rely on a joint-integrated, knowledge-based C4ISR *network of networks*, vertically and horizontally integrated from the strategic to tactical level. Drawing information updated in near real-time from a wide variety of automated and manual sources - on-board sensors, unmanned air and ground vehicles, traditional and new ISR means, space platforms, and an assortment of correlated databases - this knowledge backbone will focus on improving and accelerating the decision-action cycle in support of battle command. The network will furnish forces at all levels situational understanding and a joint COP tailored to force and situation. As a space-empowered force, the Future Force will routinely exploit the constellation of military and civilian space platforms for persistent surveillance, reconnaissance, communications, early warning, positioning, timing, navigation, weather/environmental monitoring, missile defense, and access to the global information grid. Improvements in information dissemination management and information assurance are equally important.

In unconventional and stability operations, cultural and social elements of situational understanding will rise in significance, demanding less reliance on technical capabilities and more on human sources. Acquiring reliable information in such operations, especially in an urban environment is a complex challenge, demanding unique mixes of tailored sensor suites, HUMINT, human vulnerability analysis, counter-intelligence, and local sources. The Future Force must detect, identify, and track military threats and provide early warning of civil disturbance or requirements for humanitarian assistance, relying in part on U.S. and coalition special operations forces and civil affairs units. Accurate, timely knowledge will be essential to preemptive action aimed at limiting adversaries' options and keeping them on the defensive.

⁷ This description of network effect originates from the 2005 Navy-Marine Corp FORCEnet functional concept.

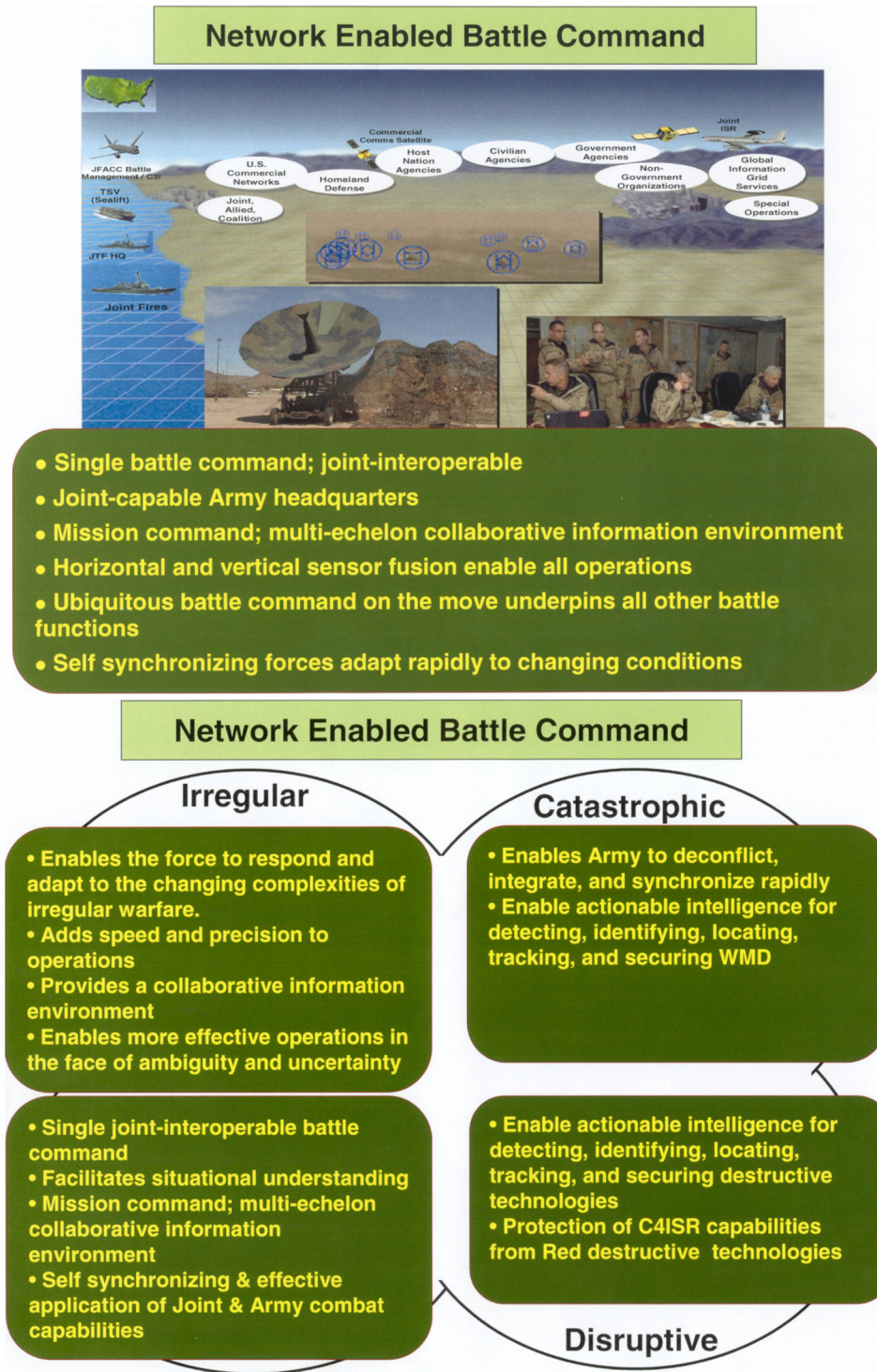


Figure 5-7. Network-enabled Battle Command

Both information technologies and innovative leader and staff development must compress and accelerate the planning, execution, and assessment process. To achieve that, the Army must:

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- Develop a single Army battle command system that is joint - interoperable and fully integrated from strategic to tactical levels via an overarching joint architecture;
- Enable Army operational HQ to serve as fully capable joint functional HQ;
- Develop a multiechelon collaborative information environment (CIE);
- Fuse sensors both horizontally and vertically within an interdependent joint network, relying on capabilities that provide persistent ISR;
- Field single and multipurpose unmanned aerial vehicles at appropriate C2 echelons, in accordance with the most effective exploitation of common airspace;
- Develop a fully integrated joint fire control system of systems;
- Integrate an agile, ubiquitous communications network from ‘space to mud’;
- Enable battle command on the move without degradation;
- Improve interoperability with interagency and multinational components; and
- Continue to explore effects-based planning as a means of improving the military decision making process.

The potential operational benefits of these advances will be profound. Distributing battle command capabilities among multiple distributed nodes and enabling multiechelon collaborative planning from joint to tactical levels will eliminate much of the sequentiality in today’s planning and allow streamlining the military decision making process. Planning in concert, commanders and staffs at successive echelons will have a clearer, common understanding of intent and a fuller appreciation of the implications of planning decisions across units and formations. Expanded situational understanding and multiechelon collaboration will facilitate the use of mission orders and expand span of control, enabling greater decentralization and simultaneity. Access to the CIE will enable subordinate commanders to self-synchronize their actions during operations and make incremental adjustments in response to changing conditions. Tactical commanders will be able routinely to employ joint effects at lower tactical levels to help conclude tactical actions more rapidly. The sum of these advances will enable commanders to anticipate more reliably and apply force more precisely and effectively, simultaneously shaping the future battle while conducting current operations, across the spectrum of operations.

Chapter 6. Capabilities for the Future Force

Future Force development and the implementation of this capstone concept are intertwined with and dependent on successful Army and joint transformation, including the parallel development of joint capabilities, many of which surfaced in the text. The capabilities cited below constitute the most important family of capabilities for the Army Future Force. Any failure to develop them would inevitably constitute a severe brake on Future Force operations.

6-1. Soldiers and Leaders. The Soldier will be - and has always been - the fundamental centerpiece of Army capabilities. The Soldier is the ultimate system of adaptation, combined with weapons, platforms, units and processes - in dynamic combinations of unceasing variety - to overwhelm adversaries. The Future Force will treat the Soldier as a System, integrating enhanced ballistic protection, clothing and equipment, compact power and power management, nutritional enhancements, soldier weapons and increased C4ISR capabilities, all at a reduced weight.

The demands of future conflict will place great responsibility on future Army leaders at all levels, requiring leaders who can operate in an environment of uncertainty and rapidly changing operational conditions, confronting a wide variety of threats. Future leaders will have to accept change as a routine condition and be proficient in the use of a wide range of new technologies, particularly within the information arena. Army leaders will also need joint, interagency, and multinational education and experience earlier in their careers than has been the norm in the past. The ability to understand foreign cultures and their operational effects will be a prerequisite of successful leaders. Overall, the effectiveness of the Future Force will depend on and reflect success in recruiting, educating, training, and retaining our human resources, rather than the acquisition and employment of any piece of equipment.

6-2. The Network. As noted previously, advanced C4ISR capabilities will form the backbone of the Future Force, introducing potentially the most revolutionary advances in force effectiveness. In particular, forces will rely on a knowledge-based C4ISR *network of networks*, vertically and horizontally integrated from strategic to tactical level. The network will provide the means for forces at all levels to: achieve situational understanding; establish, maintain, and distribute a COP; create the commander-centric C2 environment described above, and operate within a noncontiguous battlefield framework. At the same time, the C4ISR network will sharply enhance the lethality, survivability, agility, versatility, and sustainability of the force, enabling more effective and timely application of the elements of combat power. Conversely, shortfalls in the achievement of these capabilities will adversely affect nearly all of the operational themes within this concept.

6-3. Strategic and Operational Lift. Achieving higher levels of strategic responsiveness and operational agility for the Future Force is dependent on the development of a suite of new strategic and operational lift capabilities, for example, the afore-mentioned AAHSS, SSTOL, HLVTOL, and JHSV platforms. In turn, advanced lift must be coupled with other enablers that ensure C2 connectivity, visibility of force flow, fully integrated sustainment, and knowledge-building during movement. Current strategic responsiveness goals require these improvements.

6-4. Modular Forces. Given the complexities of the future operating environment, Army force structure must be versatile and modular - a hybrid mix of capabilities that can be flexibly combined to address any contingency. Given the lead times associated with fielding new systems and modernizing older ones, and the varying readiness of both active and RC formations, the Army never has been nor will be a completely homogenous force. Nor is such homogeneity a prerequisite for military success. On the contrary, the very diversity of requirements associated with the current and future operating environment argues against it. Given that diversity, hybrid forces with differing characteristics and capabilities constitute a strength rather than a weakness, provided the force overall does not lack essential capabilities and the mix is balanced to meet the range of expected contingencies.⁸

6-5. Future Combat Systems (FCS). The FCS will comprise a key modular capability, with the strategic agility of light forces and the lethality, tactical mobility, and survivability of our heavy forces. FCS brigade combat teams will be the component of the modular Future Force most capable of implementing all aspects of this operational concept, particularly intratheater operational maneuver. The FCS further encompasses a set of technologies and capabilities that will spiral into the entire Army as they mature. Networked C4ISR, precision munitions, and advanced fire control will also be key enablers. Precision fire capabilities must be optimized within a more effective, fully networked joint fire control system that reduces latency and expands engagement options at all levels.

6-6. Logistics Transformation. The continuing revolution in military logistics is essential to enable the Future Force, with all of its hybrid elements, to operate within austere theaters without the establishment of the kind of heavy logistical structure that has characterized past operations. Transformation to a globally integrated, distribution-based logistics system is essential, with corresponding improvements in logistics C2, customer wait time, asset visibility, and time definite delivery. Sustainment demands and infrastructure must also be reduced through higher fuel efficiencies, new power sources, higher levels of reliability, improvements in maintainability, innovative solutions to water supply and generation, and smaller, more effective munitions.

6-7. Joint Transformation. Finally, to reinforce an earlier point, Future Force development is intertwined with and dependent on successful joint transformation. Successful achievement of the concept can only occur in concert with the parallel development of joint concepts, capabilities, and joint enablers. Accordingly, the Army will continue to synchronize its developmental activities with joint experimentation and the joint requirements process to ensure that the creation of the Future Force is fully nested within and supported by future joint organizations and capabilities.

⁸ Hybrid Force implications are discussed in more detail in Appendix D.

Chapter 7. Conclusion

The future operating environment will pose daunting challenges to the Army and the entire joint force. Both the projected operating environment and our national strategic guidance compel us to build a force for full spectrum dominance. The Future Force must give future joint commanders the option to maneuver operationally versatile, mission-tailored formations throughout the entire joint operations area to dominate the land dimension and confront the enemy with an overwhelming array of threats so rapidly and so violently that they are unable to effectively cope. Army operations enable the joint force commander to seize the initiative early, transition rapidly to decisive operations, and sustain operations through multiple campaigns, when required, to achieve strategic objectives.

Thus, the *campaign quality* of the Army is determined not only by its ability to conduct decisive combat operations, but also by its ability to sustain those operations for as long as necessary, adapting them as required to unpredictable and often profound changes in the context and character of the conflict. Accordingly, *the Army's preeminent challenge is to reconcile expeditionary agility and responsiveness with the staying power, durability, and adaptability to carry a conflict to a victorious conclusion, no matter what form it eventually takes*. For these reasons, the Future Force must be a campaign quality Army with joint and expeditionary capabilities.

This capstone concept is merely a start point - the baseline for a campaign of learning that will rigorously explore these ideas in wargaming, subordinate concept development, and experimentation. That purpose is not to confirm these ideas, but rather to push them to failure in a vigorous cycle of testing, analysis, and innovation; determining both their vulnerabilities and their potential improvements. These efforts, together with unfolding operational experiences, will continuously deepen understanding of the challenges of the future operational environment, refine visualization of the fundamental solutions to those challenges, and shape the development of the capabilities that enable those solutions. Like the Army in combat, this capstone concept will continuously adapt. America's Soldiers and the security of the Nation demand nothing less.

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Appendix B The Future Operational Environment

B-1. Joint Operational Environment (JOE). For the purposes of Army and joint concept development, the *Joint Operational Environment*, maintained and updated by U.S. Joint Forces Command, is the authoritative source.⁹ The JOE projects that over the next two decades, U.S. Armed Forces will operate in a geostrategic environment of considerable instability. Regional powers will grow in strength while transnational actors will operate more frequently on the global scene. State, nonstate, and transnational actors will employ or threaten violence, including terrorism, as a means to pursue their interests. Globalization will create enemies of the U.S., as well as opportunities for those enemies to further their cause. Frequent international action will be required on a wide range of security issues, creating friction as cultures, religions, governments, and economies collide in a competitive global setting. Simultaneously, the U.S. military must remain ceaselessly ready to deter, prevent, or respond to threats within U.S. territory in support of Homeland Security.

Thus, the future JOE will present a wide range of problem sets occurring unpredictably in time and space: terrorism, insurgency, civil war, state-on-state, or coalition conflict. Shattered internal societies, characterized by the absence of rule of law and extensive criminal activity, will complicate operations. Overall, the threat presents a broad set of variables and a complex range of operating conditions. In all cases, adversaries can be expected to learn and adapt, seeking victory on their own terms.

B-2. Persistent and Emerging Challenges

The National Defense Strategy (NDS) presents a taxonomy of four types of complex, interrelated, persistent, and emerging security challenges—*irregular, traditional, catastrophic, and disruptive*. Many of these new threats—especially those of radical fundamentalist terrorists not controlled by traditional states—will not be deterred by our overwhelming military superiority, and in fact, are motivated by that superiority. The four persistent and emerging challenges and their definitions (see Figure B-1) capture many of the issues in the future security environment. However, their boundaries are neither precise nor discrete, and thus, in most situations, will overlap, occur simultaneously, or offer no easily discernible transition from one challenge to another:

Irregular Challenges—Terrorism: The Most Immediate Danger. The most immediate threat the U.S. faces is the irregular challenge. General characteristics of irregular warfare include protracted struggle, reliance on sanctuaries and outside support, gradual escalation in number/size of tactical actions, and the predominance of close combat as the means of engagement. Irregular forces could arise in any future insurgency or operation. Among irregular forces, the gravest threat is from global transnational terrorists, who showed on 9/11 that even irregular actions can have strategic consequences.

⁹ In addition to the JOE, the description of the future security environment described in Annex D of the Army Strategic Planning Guidance is an important source to the following discussion.

Terrorists have enthusiastically embraced new technologies (communicating through the internet, using satellite telephones, manipulating populations via mass media, etc.). These technologies, along with better weapons and increasing skills, have contributed to the increased lethality and impact of the individual terrorist or group. Unlike states which use asymmetric methods on an as-needed basis, for terrorists and irregulars, asymmetric warfare is almost always the only means to achieve their goals.

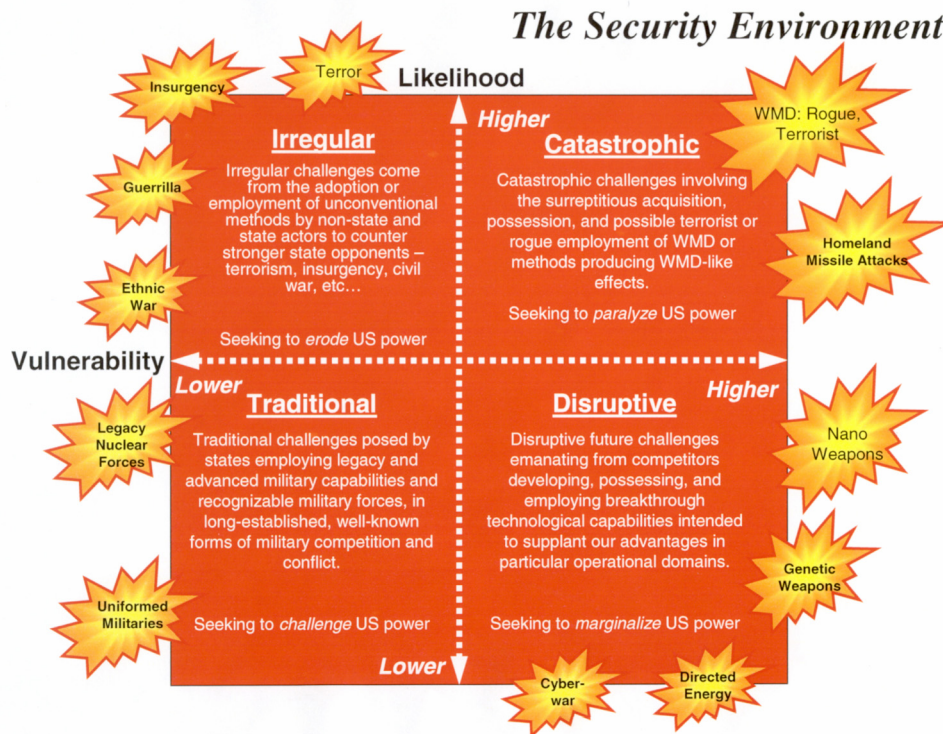


Figure B-1. The Security Environment

Due to the unique world position of the U.S., terrorists perceive the U.S. as the chief proponent, regulator, and the major beneficiary of globalization, which they believe is drastically changing their world for the worse. They have tapped into the anger of individuals and groups with deep political and economic grievances, and have channeled that anger by capitalizing upon religious extremism in disaffected societies. Because the U.S. cannot afford two armies, the Army must improve the versatility and agility of the same forces on which it relies for conventional operations to respond effectively to the irregular warfare challenge in its various manifestations.

Traditional Challenges. Traditional threats of aggression from regional adversaries or an adversarial coalition remain the most dangerous, demanding, and intensive missions for military forces. States will continue to resort to strategies based on the use of military power to achieve their goals, in conflicts that range in size from small scale contingencies to theater war, and occur in unforeseen locations and conditions. Moreover, even low intensity conflict may escalate at any time, and with little warning, into larger scale hostilities that cannot be ignored, and vice-versa. Thus, regional aggressors will continue to modernize conventional forces and invest in capabilities that dominate their neighbors.

Simultaneously, viewing the U.S. or a U.S.-led coalition as the main threat to the achievement of regional ambitions, future adversaries are expected to adopt anti-access strategies, involving several integrated lines of operation aimed at preventing or limiting U.S. involvement in regional crises. Anti-access capabilities readily available through global arms proliferation, hybridization, and careful investment will include theater ballistic missiles, inexpensive cruise missiles, long-range rockets and artillery, and WMD. Deliberate efforts to create mass casualties are additional likely components of an anti-access strategy aimed at eroding U.S. public will to remain engaged. In addition, the prudent aggressor will seek to accomplish his initial objectives as quickly as possible, leaving ample time to deny or prepare for external intervention.

However, knowing that there are no guarantees of access denial and that confrontation with the U.S. may be unavoidable, potential adversaries are designing their operational forces to avoid U.S. strengths and exploit U.S. vulnerabilities. Wargaming further suggests that some may be content, in the face of intervention, to move quickly from an offensive posture to a strategic defense, based within urban areas and other complex terrain, presenting a stalemate that can only be reversed at significant cost.

An Emerging Catastrophic Challenge. At least 25 countries, including rogue states such as North Korea and Iran, as well as al-Qaeda and other non-state groups, are working on developing or acquiring WMD as either a possible weapon or for leverage or deterrence against potential United States pre-emptive action. Thresholds for use will also fall as WMD availability grows. Terrorists will likely acquire some WMD capability in the next decade and try to use it against the United States (including on United States territory), though chemical and biological weapons are more likely due to their lower cost, signature, and detectability. Weapons of mass destruction will also become a more dangerous issue with the spread of better delivery systems, in particular the proliferation of theater ballistic and cruise missiles. Because of the catastrophic nature of this challenge, the United States military must work with domestic and coalition authorities to fully address this complex threat, not only through response measures to WMD incidents, but also strategic deterrence campaigns to prevent or diminish these threats.

Possible Disruptive Challenges. As the result of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF), most possible adversarial countries or groups will seek to avoid fighting the U.S., especially on U.S. terms. Even countries with large conventional forces will develop their militaries to deal with their immediate rivals or regional threats rather than the U.S. Few nations will shape their forces or acquisition strategy to directly confront the U.S., because they understand the power of U.S. capabilities and leadership.

However, if faced with a looming conflict with the U.S., possible adversaries will seek to buy the latest technology in niche areas to counteract key U.S. capabilities, including, for example, air defense systems, ballistic and other missile systems, WMD munitions, and C2 systems. They will also seek acquisitions - which could include breakthrough technology - that they believe will be most effective against perceived U.S. strengths, particularly U.S. reliance on digital technologies, space, and communications. These disruptive systems may be indigenously developed, purchased, and modified from off-the-shelf weapons or the most advanced components, or bought from proliferators (some of whom may be our allies). In specific areas, our potential adversaries may acquire this cutting edge technology sooner than the U.S. forces.

Even the most primitive military adversaries will potentially be ‘space capable’ as a result of the commercial sector’s provision of such products as high-bandwidth satellite communications, imagery, navigation signals, and weather data.

B-3. Complexity. The complexity of future operations will figure into all challenge areas. It has three principal manifestations: *complex physical terrain*, *complex human terrain*, and *complex informational terrain*.

In the face of overwhelming U.S. combat power, future adversaries can be expected to conduct operations more frequently from the shelter of *complex physical terrain* (urban, jungle/forest, and mountain). Such terrain typically comprises a mosaic of open patches and highly restrictive terrain, with the potential to minimize exposure to superior firepower, inflict higher U.S. casualties, and prolong the conflict. Urban defenses, in particular, will tend to reduce U.S. advantages in overhead information collection, tactical mobility, and long-range precision fires, instead placing a premium on dismounted maneuver, direct fires, ground reconnaissance, HUMINT, and the troop strength needed to conduct them.

An urban setting also invites adversaries to exploit public sensitivities to collateral damage and civilian casualties, and tends to magnify the perceived costs of protracted conflict. Overcoming this challenge in the future will require both political stamina and a concerted effort by the Army and its sister Services to find new ways of dealing with contested urban areas where it cannot be avoided. As they were in the past, such operations may well be essential to operational or strategic success in future conflicts.

Complex human terrain exists where numerous population groups coexist in the same physical space - often a city or an urbanized area. These might include ethno-linguistic groups, political factions, tribes or clans, religious sects, or ideological movements. Identification of combatants in complex human terrain is extraordinarily difficult; applying force in such an environment imposes a high risk of counterproductive or unintended consequences.

Finally, *complex informational terrain* is the multiple sources or transmission paths for communications, data, or information - including news media. A force operating in complex informational terrain will not have the ability to control information flow. Once again, this is most common in heavily urbanized terrain, where all sides in a conflict may use the same mobile phone systems or satellites and gain tactical information from news media operating throughout the same physical area.

Appendix C Strategic Guidance

C-1. Strategic Mandates. The key strategic mandates affecting Future Force development include the National Security Strategy (NSS), NDS, National Military Strategy (NMS), Strategic Planning Guidance (SPG), Transformation Planning Guidance, and Quadrennial Defense Reviews. Although these guiding documents change frequently, significant continuity exists over time. For example, future national military strategies will certainly continue to cite the enduring requirement for U.S. forces to deter conflict, based on the ability to respond rapidly and decisively to defend U.S. interests. Themes and principles described within this concept directly support strategic guidance, particularly emphasis on assured access, improved strategic responsiveness, network-enabled operations, and the many variables inherent within the future operating environment.¹⁰

C-2. National Goals and Methods. The NSS¹¹ articulates eight methods the U.S. will pursue to achieve its goals. These goals and methods provide the foundation for the objectives developed in subordinate supporting strategies, such as the NDS, the NMS, and the Army Plan (see Figure C-1). They also outline what the Department of Defense (DoD), and therefore the Army, must accomplish to protect national interests and achieve U.S. strategic objectives.

National Security Strategy Goals and Methods

Goals:

- Spreading Political and Economic Freedom
- Maintaining Peaceful Relations with Other States
- Promoting Respect for Human Dignity

Methods:

- Championing aspirations for human dignity
- Strengthen alliances to defeat global terrorism
- Act alone or preemptively if necessary
- Work with others to defuse regional conflicts
- Prevent our enemies from threatening us with WMD
- Promote global economic growth
- Expand the circle of development by working to open societies and build democratic infrastructures
- Develop agendas for cooperative action

Figure C-1. National Goals and Methods

¹⁰ This Appendix draws heavily from analysis and discussions contained within the Army Strategic Planning Guidance. The concept overall is consistent with the 10 strategic imperatives defined in that document.

¹¹ The National Security Strategy is available online at <http://www.whitehouse.gov/nsc/nms.html>, (link active as of 25 October 2004).

The NSS reflects contemporary realities and expands upon the national purpose outlined in the U.S. Constitution. It describes national interests and how the Nation will advance and defend those interests. The NDS and NMS further refine national level guidance by focusing the goals and methods outlined in the NSS in terms of military instrument of power. These documents, informed by the lessons learned in the War on Terrorism, including OEF and OIF, direct the Army to prepare its forces and capabilities to support and defend America’s interests as part of a joint, interagency, and multinational team.

C-3. National Ends: Strategic Objectives. The strategic framework to defend the Nation and secure a viable peace, articulated in the NDS and chapter 1 of SPG 06-11, is built around four strategic objectives (see Figure C-2) which will guide DoD security activities.

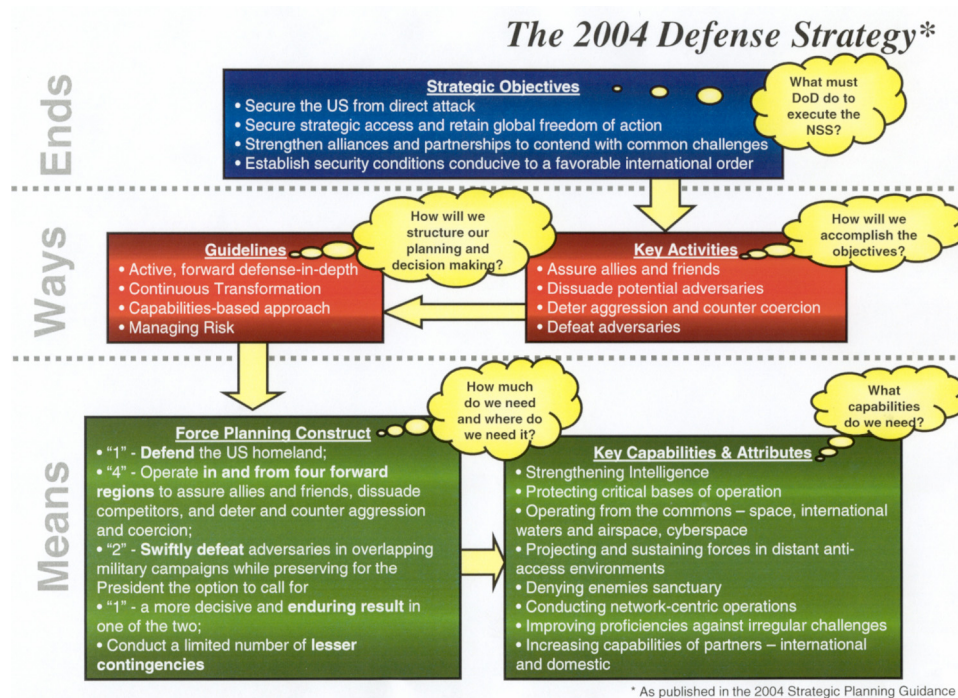


Figure C-2. The 2004 Defense Strategy

- Secure the U.S. from direct attack by countering early, and at a safe distance, those who seek to harm the U.S. The enemy seeks to undermine U.S. international relationships, erode U.S. influence, and impose extremist views on civilized societies.
- Ensure strategic access. Ensuring strategic access to key regions, lines of communication, and the global commons underwrites the security, prosperity, and well being of the American people and guarantees a maximum freedom of action. The universal, open, and peaceful use of critical lines of communication and the global commons will support the security of the global economy and key regions.
- Establish favorable security conditions. Though forged during the Cold War, U.S. traditional partnerships around the world are as valuable today as when they were formed. However, our collective, long-term security also depends on broader support to

the pursuit of freedom, democracy, and opportunity around the world. The U.S. will honor its security commitments, work with others to create favorable security conditions, and expand the community of like-minded nations.

- Strengthen our allies and partners. The U.S. relies on its allies and partners to help maintain the wider peace, bring about favorable and durable change, contend with major security challenges, and sustain the global influence and freedom of action we all collectively enjoy. We will help partners increase their capacity to defend themselves and to meet challenges to common interests.

The NMS takes these ends and extrapolates three supporting military objectives: to **protect the U.S.** against external attacks and aggression; **prevent conflict and surprise attacks;** and **prevail against adversaries.** These military objectives help to define the types and amounts of military capabilities required.

C-4. National Ways. The NDS and Chapter 1 of the SPG describe four key activities or methods for ensuring U.S. security and promoting national goals. These are:

- Assuring allies and friends by demonstrating U.S. steadfastness of purpose, national resolve, and military capability to defend and advance common interests, and by strengthening and expanding alliances and security relationships.
- Dissuading adversaries from developing threatening forces or ambitions, shaping the future military competition in ways advantageous to the U.S., and complicating the planning and operations of adversaries.
- Deterring aggression and countering coercion against the U.S., its forces, allies, and friends in critical areas of the world by developing and maintaining the capability to swiftly defeat attacks with only modest reinforcements.
- Decisively defeating any adversary at the time, place, and in the manner of our choosing, when the President directs.

In addition to these four methods, the NDS outlines four implementation guidelines that steer strategic planning and decisionmaking.

- Active defense-in-depth. The defeat of direct threats to the U.S., before they become manifest, is a first priority. Therefore, the U.S. must defeat the most dangerous challenges at a distance, before they fully mature. That goal requires military planning focused on the active, forward, and layered defense of our nation and our partners - with varied and flexible capabilities.
- Continuous transformation. The purpose of transformation is to extend key advantages and reduce our vulnerabilities in the face of an ever-changing strategic environment. The Department will continually adapt how U.S. Armed Forces approach and confront challenges, conduct business, and work with others.

- Capabilities based approach. Capabilities based planning and operations focus more on how adversaries operate than on whom those particular adversaries might be or where exactly the U.S. may have to contend with them.
- Managing risks: Effectively managing a variety of complex defense risks is central to operationalizing the NDS. The Department will consider the full range of risk associated with resources and operations to manage explicit tradeoffs.

In addition to the tenets summarized above, the JOpsC describes how the transformed joint force will operate in 10-20 years. The JOpsC describes the conduct of joint operations in terms of eight core capabilities (see Figure C-3).

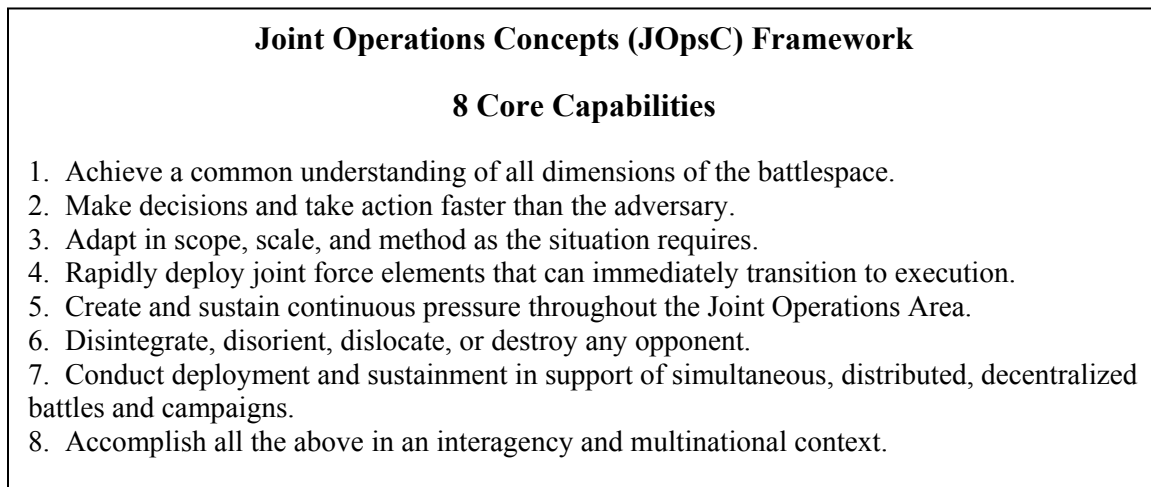


Figure C-3. JOpsC Core Capabilities

Taken together, these four key activities, implementation guidelines, and the JOpsC are the ways we achieve the Defense Strategies' goals of *Secure, Ensure, Establish, and Strengthen*.

C-5. National Means: Joint Forces and Force Sizing Framework. The joint force must be interdependent, fully integrated with other instruments of national power, and flexible enough to rapidly respond to a variety of challenges and achieve a variety of decisive outcomes. It must also possess an appropriate mix of critical capabilities and employ quality people to provide the President and Secretary of Defense with a wide variety of options to take decisive action as required. The 1-4-2-1 force-sizing framework specifically shapes forces to accomplish the following four missions:

- Defend the U.S. homeland.
- Operate in and from four forward regions to assure allies and friends, dissuade competitors, and deter and counter aggression and coercion.
- Swiftly defeat adversaries in overlapping military campaigns while preserving for the President the option to call for a more decisive and enduring result in one of the two.
- Conduct a limited number of lesser contingencies.

Appendix D
Future Force Attributes and DOTMLPF Implications

It is important to note that the current force will continue to retain broad utility well into the future. The major systems within the force - the Abrams tank, the Bradley infantry fighting vehicle, the Apache attack helicopter, the Blackhawk utility helicopter, and the Patriot air defense system - represent a triumph of American arms for the era in which they were developed and they continue to demonstrate utility in current operations, as well as in future experimentation. However, continuing reliance on the current systems and organizations will not provide the full range of options required by future joint force commanders.

D-1. Future Force Attributes. The JOpsC provides the baseline for the attributes that must be fully development within the future joint force.¹² The Army's own work validates the relevance of these attributes for the Future Force as well, as described in Figure D-1.

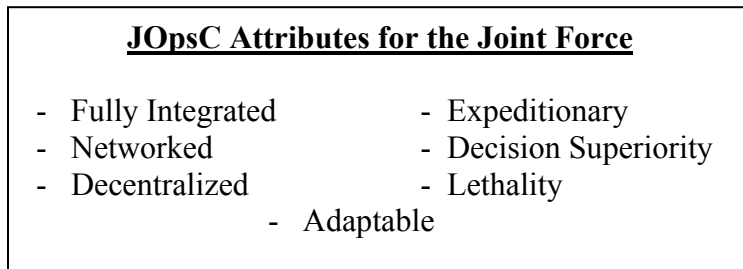


Figure D-1. Attributes for the Joint Force

Fully integrated. Future Force development includes an explicit goal to achieve full joint integration within the future joint force as a stepping stone to a yet higher goal, that of joint interdependence, that will expand deliberate reliance on joint and sister Service capabilities. The fundamental building block to both is the achievement of fully integrated battle command and information capabilities. In the same vein, the diverse requirements of future battle will require the Future Force (and joint force) to integrate interagency and multinational capabilities, regardless of the scale of the contingency.

Expeditionary. The Army has formally embraced a commitment to the inculcation of a joint and expeditionary mindset within the current and Future Force, accompanied by a parallel goal to improve expeditionary posture. The former involves focused efforts to change the Army's culture, with emphasis on innovation, while the other will be met through the development of advanced capabilities and the introduction of organizational changes, described further below, that will support a higher degree of strategic responsiveness to meet the demands of the future JOE.

Networked. Recognizing that networked capabilities are the foundation for full spectrum effectiveness, the Future Force is being designed as a network-enabled, knowledge-based force. Fully nested within the evolving, overarching joint architecture, the Future Force seeks a level of

¹² As the JOpsC is revised in the future, this list may change, although the continuing relevance of these particular attributes is self-evident.

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globally networked integration that extends vertically from the strategic-to-tactical levels, provides situational understanding horizontally to all elements of the force, and effectively links to interagency and coalition partners at the appropriate levels. The Army's LandWarNet is the Army's contribution to the Global Information Grid that consists of all globally interconnected, end-to-end Army information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating, and managing information.

Decision Superiority. As is true for the future joint force, the Future Force will seek to apply advances in C2, information capabilities, and the military decision making process (MDMP) to support the achievement of decision superiority vis-a-vis the enemy. The ways and means of achieving this goal, however, are likely to vary widely depending on the nature of the adversary and the operational environment. Experimentation and operational experience suggest that it may be more difficult to achieve during unconventional operations.

Decentralized. Many factors will combine to enable the Future Force to operate in a more decentralized fashion: higher levels of situational understanding; the shared common operating picture; collaborative planning; self-synchronization during operations; routine employment of joint capabilities; and improved organic capabilities to extend operational reach and lethality. Guided by full understanding of commander's intent, decentralized operations will support the achievement of increased simultaneity and higher operational tempos in most situations.

Lethality. The future JOE requires the Future Force to improve its capabilities for lethality with respect to all the traditional parameters: range, precision, responsiveness, timeliness, multiplicity of options, and control of terminal effects. Perhaps the two most important advances in this area are the design of smaller combat units with lethal capabilities as good, or better than, today's larger units and the intent to rely increasingly on joint effects to support ground operations. In addition, the Future Force must also expand its organic *nonlethal* capabilities to provide more options to commanders for situations wherein lethal effects are not acceptable, particularly in urban areas.

Adaptive Dominance. Adaptive dominance is the ability to adapt to changing battlefield conditions more rapidly than the enemy, with leaders and forces imbued with inherent versatility and organizational agility. Clearly, the Future Force must be prepared to quickly respond to any contingency with the appropriate force mix, placing a premium in particular on force agility, ability to mission tailor rapidly and effectively, scalability, and multifunctional organizations. In addition, adaptive dominance presumes a versatile and robust force design that incorporates such qualities as shared situational understanding, modular organizations, ground and air mobility, close synchronization of fires with maneuver, and effective integration of sustainment with combat operations. At the level of Soldiers and leaders, future operations will demand the combination of leadership skills, maturity, and expanded knowledge base needed for engagements across the spectrum of operations. Finally, adaptive dominance is particularly relevant to success against highly unpredictable adversaries, employing unconventional means and methods that frequently change, both in response to U.S. military action and in advance of it.

Full Spectrum Dominance. All of the force attributes briefly described above contribute to an overall capability for full spectrum dominance. The hybrid nature of the Future Force provides

inherent versatility across the range of military operations. Simultaneously, a number of initiatives already underway - development of medium weight forces, improvements in force modularity that represent full commitment to capabilities-based force packaging, organizational innovation to simplify mission-tailoring - will further improve full spectrum readiness and also facilitate fully integrated joint operations. Leader development and training will provide the other key drivers to these improvements.

D-2. DOTMLPF Implications. Army concepts normally include a discussion of the implications of the concept for doctrine, organization, training, materiel, leader development, personnel, and facilities. Those implications should be explicit enough to generate some action for change within the DOTMLPF domains. The *primary* implications arising from the capstone concept, vice an exhaustive list, are described below. However, many of the items cited below will require additional analysis before comprehensive actionable recommendations emerge.

Doctrine. Key doctrinal implications include the following:

- Consideration of the broader capability differentials that may exist in the future hybrid force and how those differences are operationally reconciled.
- Connecting operational forces more closely into the concept development and experimentation process in order to respond more quickly to validated doctrinal principles that emerge.
- Similarly, connecting forces engaged to forces in training to facilitate two-way interactions on doctrinal requirements and inputs for changes in doctrine.
- Accommodating the rapidly changing, highly complex elements of battle command.
- Addressing urban operations more thoroughly, moving beyond the current, tactical perspective, to one that incorporates strategic and operational concerns.
- Fuller incorporation of joint capabilities and joint implications.
- Continued simplification of the joint/Army doctrine review and approval process and reconsideration of how authority to prescribe doctrine is distributed.

Army and joint doctrine must keep pace with the new operational methods validated and introduced into the force in the form of organizational changes and new capabilities. In the past, Army doctrine reinvented itself roughly on an 8-10 year cycle. However, the pace of change anticipated in the future is such that the Army's current doctrinal process must revamp in many ways to keep pace.

While much progress has been made with respect to the use of information technology to facilitate the rapid incorporation of doctrinal changes and operational lessons learned, the doctrinal review process remains too slow and the means of supporting field forces is not fully meeting needs. As the Army fully implements a lifetime training and education paradigm, the

doctrinal process must adapt to support it. In addition, it must better accommodate the full range of military operations and the rise of new mission areas such as homeland security and nation-building.

Organization. The organizational implications for the Future Force derived from this operational concept are profound, calling for pervasive organizational innovation. Among other desirable ends, the organizational concept for the Future Force must account for: scaleable C2; frequent mission tailoring; force responsiveness and agility; ability to change missions without exchanging forces; deliberate, routine employment of joint effects; and general adaptiveness to changing battlefield conditions. Major organizational change is underway or projected in the following three areas:

Modular, Brigade-based Force Structure. First, the Army is already moving to a brigade-focused force construct as the principle foundation for conducting tactical operations. This change constitutes a deliberate shift from the long-standing division focus to the brigade combat team (BCT) as the primary basis for more effective mission tailoring and a means to resolve the readiness challenges that arose in the past when the Army task organized and deployed forces for contingency operations, often leaving behind division-based organizational remnants. The brigade-based approach will improve strategic responsiveness, increase the number of maneuver formations available for future operations, and provide greater flexibility to the joint force commander across the range of military operations. Increasing the number of maneuver BCTs requires reducing them in size, although they are expected to be equally effective in combat through the incorporation of other enablers and improved capability to employ joint effects routinely. Maneuver BCTs will reflect a combined arms organization to battalion level, reducing the need to cross attach and strengthening their ability to fight cohesive teams. Maneuver BCTs identified for prompt expeditionary response will be expected to operate initially under direct C2 of the Joint Force HQ in early entry operations. In parallel with the emphasis on maneuver brigades, combat service and combat support units are also being reorganized into battalion and brigade-sized units to facilitate mission tailoring and flexibility. Modularization of these forces will further support improved responsiveness, standardization of capabilities, ease of mission tailoring, and scalability to the scope and duration of the operation.

Units of Employment (UE). Second, the Army is eliminating one of the echelons above brigade level, combining the functions and capabilities of the traditional Army, corps, and division into an evolving two-level structure of UE. At the operational level, the UEy will serve as the Army Service Component Command (ASCC), provide operational level direction to land forces, and assume joint roles as the joint force land component (JFLCC) or JTF when appropriate. Below the UEy, the UEx, in turn, will function as the principle C2 echelon for higher tactical operations, combining the functions and capabilities of the Army of Excellence (AOE) corps and division at that level. Both UEx and UEy will be capable of C2 of Army, joint, and multinational forces and be organized, designed, and equipped to fulfill C2 functions as the Army Forces Component, JFLCC, or the Joint Force. They will also be designed with the inherent capacity to interact effectively with multinational forces, as well as with interagency, nongovernmental organizations (NGOs), and private volunteer organizations (PVOs).

Force Pooling. The concept of force pooling is a component of the force tailoring process. Force pooling depends on the creation of pools of standing organizations—modular BCTs and support units—that can combine into the temporarily established large formations described above. Simultaneously, it establishes an organizational paradigm that will enable the UEy and UEx to rapidly tailor the precise capabilities needed for each operating environment. The concept presents significant challenges with respect to readiness, training, assignment of mission essential task list tasks, geographic distribution, force stabilization, differing levels of modernization within the pool, and the organizational trust and cohesion required for effective operations.¹³ While resolving the challenges of force pooling requires considerable analysis and experimentation, some likely features of this organizational innovation may be projected.

- Army force pools must be large enough to provide the flexibility needed for strategic responsiveness and small enough to distribute the management challenge of force pooling across the Army overall.
- RC organizations will be committed to force pools in the same fashion as Active Component organizations.
- Habitual associations within each force pool will establish a basis for more effective training, leader development, and readiness, without creating standing larger formations.
- Training programs should be developed to combine those units considered most likely to deploy together, based on contingency planning.
- Establishment of a force stabilization framework will help balance readiness across force pools with standing commitments to ongoing operations.

Hybrid Force Implications. The complexity of future operations requires a careful look at the continuing hybrid nature of the Future Force to determine how to best apply its diverse elements for maximum effectiveness within the Future Force operational concept. Several initial observations set the stage:

First, as in the past, the Army's doctrinal focus and strong emphasis on training and leader development provides the common bond for forces of diverse capabilities to operate effectively together. Doctrine, training, and leadership provide the glue to ensure that hybrid elements within the force can operate effectively together in a rapidly changing battlespace, with variable operational requirements.

Second, the Army's current emphasis on the rapid establishment of a single battle command system will and must provide a common knowledge and communications backbone for full interoperability between differently modernized forces, without the application of extensive workarounds. Failure to achieve this central goal will inevitably compel a sharper differentiation of roles and missions on the battlefield, reducing the overall flexibility and versatility of the

¹³ The Army Force Generation Model (ARFORGEN) portrays execution of this methodology.

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force, and potentially, requiring commanders to exchange forces when missions or mission, enemy, terrain and weather, troops available, and civilian conditions change.

Third, the development of medium weight forces, beginning with Stryker brigade combat teams (SBCTs) and continuing with FCS brigades, will address part of the gap that currently exists between heavy and light forces in terms of responsiveness, lethality, mobility, and staying power. These developing force elements, in fact, are expected to provide the highest degree of versatility across the range of military operations.

Fourth, the development of the joint enablers highlighted in this concept, particularly the advanced lift capabilities, will close the gap in responsiveness between heavy, light, and medium forces and increase the overall operational agility of the force.

Fifth, the Army's adoption of a brigade-based force structure, with formations grouped in force pools for mission-tailoring under UEx and UEy level HQ, will provide an organizational means for devising the best combinations of mixed forces for each set of operational conditions.

Sixth, the most problematic area in employing a hybrid force in future operations is likely to occur in the area of sustainment, where legacy/current platforms will continue to present heavy sustainment demands, while future forces may well evolve more rapidly to a different sustaining paradigm involving a reduced infrastructure and higher reliance on distribution rather than inventories. Thus, reconciling sustainment requirements between current and future organizations will require considerable effort in the future.

With the above caveats in mind, it is possible to pose a number of initial guidelines for the application of hybrid Future Force capabilities in future operations.

- "Prompt response" requirements in the future will normally be met by current light formations, SBCTs, and FCS-equipped UAs. Effective positioning of stocks will also permit prompt response by up to brigade-sized heavy forces. Where there is no requirement for prompt response, mission-tailoring of any elements of the Future Force may meet the requirements of the particular contingency.
- Similarly, light (airborne, air assault), SBCT, and FCS UAs will also conduct operational maneuver by air and vertical maneuver.
- AAHSS and JHSV capabilities will enable any part of the Future Force to be moved and sustained along the littoral for entry and sustained operations.
- Heavy formations will provide the majority of forces committed to sustained operations following early entry operations. In addition, current heavy forces will remain the force of choice to conduct close combat against modernized enemy mechanized formations.
- Combinations of any elements of the Future Force, with appropriate training and leader development, will be relevant to meet requirements of stability operations,

except in environments where a large dismounted presence is required, in which case light forces and SBCTs will provide the best fit.

- Modular support brigades are intended to have universal relevance to the entire ROMO, although the sustainment requirements cited above may constrain how to combine older brigades with more modernized forces.
- The employment of light and medium formations will substantively expand and enhance operations in complex terrain, but they will continue to require support from tailored heavy capabilities within the urban environment.
- Follow and support roles, when required, will likely be more suitable for less modernized elements of the Future Force.

Training. The Army training community has devoted significant effort to distill the main training implications to support evolution to the Future Force. The adoption of a lifetime training paradigm that effectively integrates institutional, unit, and individual training and education is the first step in that process, and one that deliberately acknowledges the effect of the dynamic nature of the current and future security environment. The following categories summarize the major implications:

Training Strategy.

- Implementation of a lifelong training paradigm for individual personnel.
- Continued refinement of the train-alert-deploy approach to training readiness.
- Linking training strategies to force stabilization and readiness within the evolving “managed readiness” (tiered) system based on force availability.
- Adaptation of training strategies for force pooling units.
- Accommodation of an increasingly broad array of training tasks emerging from expanding missions for Army forces in the future JOE, without a corresponding increase in time available for training.

Integrated Training Environment.

- Creation of a global, on-demand capability for individual training and education, more widely employing embedded training, simulations, and distributed learning.
- Networked institutional education system that provides training capabilities to individuals and units - “beyond the walls” institutional training.
- Prioritized access for units deployed or alerted to deploy.

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- Expansion of capabilities for mission planning/rehearsal and automated After Action Reviews that reduce the burden of planning, execution, and assessment in training events.
- Development of training capabilities at home stations that approach the quality and standards of the combat training centers (CTCs) using organic battle command systems and increasingly useful simulation capabilities.
- Within the CTCs, expansion of capabilities for embedding joint, interagency, and multinational tasks and considerations.
- Increasing integration of Army CTCs into the Joint National Training Capability.
- Shift in CTC focus from planning-centric to execution-centric events to optimize the time available and development of a deployable CTC capability to support deploying/deployed forces.
- Accommodation of an expanding number of BCTs within the Army force structure with CTC cycles.
- Incorporation of sustainment training within CTCs as a rule, not as an exception.

Training Support.

- Development of a more effective, automated unit training management tool.
- Continued evolution of constructive simulations, away from attrition-based models and platform-to-platform engagements, to include focus on the MDMP, effects generation, and non-kinetic interactions in the battlespace.
- Development of training support functions within home station operations centers suitable for supporting deployed forces and individuals.

Materiel. The execution of the Future Force concept is fully dependent on the development and incorporation of a large variety of advanced capabilities, which will be distilled, clarified, and validated during subordinate concept development and experimentation. Within that large set, five families of materiel capabilities are particularly important, previously described in Chapter 6:

- Advanced C4ISR networked capabilities.
- Logistics transformation.
- Advanced strategic and operational lift.
- Precision munitions and advanced fire control.

- Future Combat Systems.

The FCS program will provide the improved capabilities in lethality, mobility, agility, and versatility required to achieve rapid tactical decision inherent within the capstone concept, while also improving the strategic responsiveness and deployability of the force overall as a result of its weight and cube advantages over current systems.

Leader Development and Education. The demands of future conflict will continue to place great responsibility on future Army leaders at all levels, requiring mature judgment, even while they are still gaining experience. The future battlespace will also require leaders who can operate with mission command in an environment of rapidly changing operational conditions, confronting a wide variety of threats and variable risk. Future leaders must possess a "joint and expeditionary mindset," accept change as a routine condition, and acquire proficiency in the use of a wide range of new technologies, particularly within the information arena. Army leaders will also need joint/interagency and multinational education and experience earlier in their careers than was the norm in the past. On that note, the scope of joint professional military education must expand to encompass more officers from each of the Services, expand interagency/multinational participation (including NGO and PVO participation, if feasible) and address the entire range of military operations. Similarly, recent operational experience and the future environment clearly point to the need to instill much higher levels of cultural expertise within future cadres. Other major implications include the following:

- The adoption of a lifetime education paradigm, described above. That model must include an effective feedback and assessment mechanism to ensure that the distributed elements within it provide maximum value and help identify leader developmental needs.
- The growing sophistication of operations, the rising technical complexity of many functions, and the multiplication of new skills will likely create a challenge in terms of officer specialization and increase the time required to prepare leaders.
- Networking institutional sites with each other and with CTCs will more robustly link academic and operational environments.
- Creation of knowledge centers configured to support professional education of leaders, both at home stations and with deployed forces.

Personnel. Significant personnel implications have been cited above in the discussions of training and leader development. Implementing force stabilization policies, in order to generate a level of personnel stabilization that reduces personnel turbulence, better supports a lifetime training and education paradigm, and reduces the redundancy that occurs in some training cycles is also important. The personnel management system must also adapt to force stabilization and undergo further analysis regarding its continuing relevance in its current form to ensure that it provides the career paths needed to provide fully prepared leaders for the Future Force.

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Facilities. Improving strategic response will require upgrade of Army facilities infrastructure, from home stations through designated ports of embarkation. This concept should drive an examination of the home station operations center (HSOC) concept for those installations most likely to operate as core power projection platforms. The HSOC would support deployment, reduce footprint in theater, and provide 24-hour reach-back capability. For those reasons, home station readiness activities and posture should become a standardized unit readiness metric in that the ability of the home station (power projection platform) to support deployment and provide reach-back capability for information, analysis, and planning is as critical as the readiness of the unit.

Appendix E Assumptions and Alternative Futures

E-1. Assumptions. It is useful to overtly describe the assumptions implicit in the capstone concept. These assumptions should not be viewed as unchallenged predictions of the future operational environment; clearly each one could be rationally disputed to some degree. Instead, they exist for the deliberate purposes of bounding the joint and strategic context for the concept and identifying conditions that would precipitate a wholesale revision or abandonment of this concept. Invalidity of the key assumptions, as determined through continuous experimentation, wargaming, and assessment, will cause fundamental revision of this operational concept.

Key Assumptions (Strategic):

- The JOE accurately describes the most likely security environment in the 2015-2024 timeframe.
- The U.S. will continue to pursue its national interests through proactive global engagement.
- The U.S. will have nuclear and technological overmatch in most regions.
- The use of WMD will not be routine and frequent.
- The nature of warfare will remain largely unchanged; the conduct of warfare will change.

Key Assumptions (Interdependent Joint Capabilities):

- Joint Transformation will continue and achieve its stated objectives for joint force development.
- The U.S. and coalition partners will operate with local to theater air/space/maritime superiority.
- Advanced air and sea lift capabilities will be fielded.
- Operations will be conducted within a JIM framework.
- Proliferation of precision munitions will occur throughout the force.
- The network envisioned as the backbone for network-enabled operations will exist and work as estimated.

E-2. Alternative Futures. The concept development process, while emphasizing what the futures community posits as the most likely future, should also account to some degree for significant alternative futures. Figure E-1 below graphically illustrates that the farther that one projects from the present time, the more possibilities exist for changes to the future security environment, including radical change.

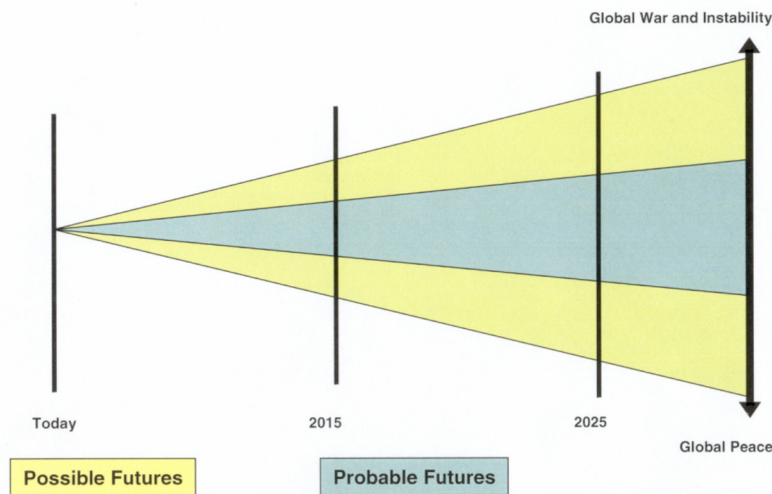


Figure E-1. Alternative Futures

Recognizing that exploring every possible future is both unproductive and ultimately impossible, this Appendix explores three alternatives to the joint operating environment described in the main text. The alternatives were selected on the basis of two main criteria: plausibility and significance. Each alternative would require the fundamental overhaul of existing defense policy and joint and Army concepts. However, the alternatives are so broad that it is neither feasible nor desirable in this Appendix to attempt to develop a full blown "how to fight" concept to address them. Instead, the discussion below identifies the *major* implications of each alternative for Army and joint concept development, with the goal of illuminating key differences with respect to policy, force structure, and capabilities.

Global Proliferation of Irregular Warfare

The first alternative future projects a security environment in which the probability of U.S. involvement in traditional state-on-state warfare is quite low. Instead, the predominant security challenge is global instability and widespread irregular warfare, originating unpredictably from a variety of sources, taking place in a variety of environments, and further complicated by other variations with respect to scale, duration, threat capabilities, and conflict methodologies. The scope of global instability in this possible future is such that U.S. interests worldwide are routinely threatened from year to year, generating the combination of multiple, simultaneous, ongoing stability operations with the need for frequent unplanned military interventions.

Implications for National Defense Policy and Joint Concepts. The nature and conduct of irregular warfare are well known, having been well-documented through time in military histories, operational analyses, and doctrinal publications. General characteristics include protracted struggle; reliance of the irregulars on sanctuaries and outside support; periodic lulls within a gradual escalation in scope, size, and number of tactical actions; and the predominance of close combat as the means of engagement.

Perhaps the most important impact of this future would be the necessity to adopt national strategic mandates that fully accept the idea of protracted, near-continuous conflict, while simultaneously rejecting the "short war" perspective that has characterized defense policy in the post-Cold War period. Similarly, the American preference to achieve victory through technology overmatch would need to give way to the recognition of the primacy of the "human dimension" in irregular warfare, with a shift in organizational and materiel focus to improving capabilities in that dimension.

Both of the initial implications would further give rise to the recognition of the limitations of firepower as a principle means of victory in irregular warfare and the rising premium that would necessarily be placed on manpower and presence. Since neither history nor recent operations support the view that irregular warfare can be conducted from a distance, theories that today propound remote precision strike as a near-universal panacea for decision would be found wanting in view of the unavoidable requirement to confront and defeat the irregular adversary at close range on his territory.

Hard-nosed assessments would be required to determine the continuing relevance of current U.S. force structures and capabilities to an environment in which landpower is undeniably the primary means of effectively confronting irregular combatants. Investment strategies that today continue to emphasize supremacy in the air and sea would necessarily shift toward ensuring that the nation can project significant numbers of ground forces, often rotated over time, and sustain protracted operations on land in multiple locations. In fact, the demanding requirements in Iraq, for manpower balanced between combat and nation building tasks, that have compelled the conversion of non-infantry formations to infantry, could reasonably be viewed as a precursor to broader conversions between the domains of military power. Along the same lines, it seems irrefutable that the nation's complement of special operations forces would necessarily have to increase in size and significance.

Current trends to improve global force management would rise in importance and the U.S. global basing posture would almost certainly require a shift from continental U.S. basing to one more reliant on stationing outside the continental U.S. Concerns about assured access would likely prove less challenging since the capabilities to deny access *on a significant scale* are largely restricted to major state adversaries. Conversely, requirements to ensure security for U.S. forces and assets outside the U.S. would undoubtedly increase as irregular threats proliferate.

Widespread irregular warfare would expand the need for reliable coalition participation, on a recurring basis, moving perhaps from a "coalition of the willing" to more predictable coalitions involving long-term commitments within specific regions. On the positive side, the growing technological gap between U.S. and other forces today may be less of a factor in irregular

warfare than it is for conventional operations. In other words, it may prove easier to integrate capabilities and forces from other nations in irregular warfare than it is in major combat operations.

Finally, the often remarked lack of unity between U.S. civil and military authorities and the frequent shortfalls in integration of the elements of U.S. national power will constitute a major hindrance to success, and could not long be tolerated, demanding institutionalized solutions that to this point have been difficult to achieve.

Implications for Army Operational Concepts. Although there are a number of elements presented within this capstone concept that would remain highly relevant to this alternative future, the concept would prove unsatisfactory overall. Elements with continuing relevance would include:

- Expeditionary focus and capability for rapid intervention with balanced forces.
- Emphasis on distributed operations, operational agility, distributed support and sustainment, and exploitation of the vertical dimension for both maneuver and sustainment.
- The need for network-enabled battle command.
- The central significance of situational understanding.
- The stated goals of a full operational net assessment of the adversary and the ability to maintain a dominant decision cycle relevant to the adversary.
- Transition to a brigade-based force, with a resulting increase in the number of "employable" brigade combat teams.
- Continuing development of Stryker- and FCS-equipped formations.
- Emphasis on reduced sustainment demand and logistical infrastructure in-theater.
- Emphasis on mobility, survivability, and adaptive dominance.

This alternative future would demand adoption of a flexible campaign framework that can adapt to a variety of conditions and adversaries. It would also argue for a reevaluation and application of attrition concepts to protracted conflict. Joint force commanders will require forces and capabilities deliberately optimized for stability operations and irregular warfare. Other implications for the Army include:

- Reduced utility of heavy forces, leading to a rebalancing of the force toward light and medium-weight formations with higher manpower levels.
- Increase in civil-military and nation-building forces and capabilities.

- Reduction in ground force structures primarily relevant to conventional adversaries (air defense, long range missile forces, etc.).
- Shift in focus at the operational level to long-term integration of essentially tactical operations with nation-building and civil-military activities.
- Increased tactical autonomy and decentralization.
- Return to a contiguous battlefield framework to ensure pervasive security, but with continuing capability for conducting non-contiguous operations.
- Emphasis on *continuous pressure* on the adversary vice the conduct of continuous, high tempo operations.
- Denial of enemy opportunities to exercise initiative, even at small unit level.
- Increased emphasis on denial of enemy use of sanctuaries, including during lulls in active combat operations.
- Elevation of operational requirements for cultural and social awareness to a level approaching that of situational awareness.
- Fuller integration of military operations within the host governmental and military infrastructures.

Clearly, the environment would also require major military efforts devoted to nation-building to an extent not experienced since the Vietnam War, with the necessary parallel shifts in capabilities and doctrinal focus. In a word, this alternative future might well require the Future Force to adopt nation-building as a new core competency.

For both the Army and the joint force, one of the deepest changes would involve institutional culture. This alternative future would demand an institutional culture, supported by radically revamped training, readiness, and leader development paradigms, based on the *expectation* of Soldiers spending perhaps one third to one half of their service in operational deployments in which understanding the sources of conflict, local culture, and intricacies of civil-military relations are virtually as important as individual and organizational skills for combat.

Widespread Use of WMD Capabilities

The second alternative future considered is one in which the capability to employ WMD has proliferated globally, while the threshold for their use has fallen. The result is an environment in which we expect both state and non-state adversaries to employ WMD capabilities to deter/deny U.S. intervention, negate U.S. military advantages, and impose a requirement on U.S. forces to operate within contaminated environments.

Although joint or Service wargaming and experimentation have rarely examined these kinds of conditions, analyses performed in past decades regarding war in Europe comprise a rich source of understanding of at least one major element of this possible future: large scale conventional operations, within a developed continental infrastructure, under the threat and use of tactical nuclear weapons. Surprisingly, however, the Soviet approach to these conditions probably constitutes a better guide to some of the central conceptual issues. The Soviet Armed Forces built mechanized forces to a scale designed to absorb high losses and deliberately designed fighting platforms optimized for movement through contaminated areas and fighting without dismounting. Operational principles of that era, such as rapid maneuver, dispersal of forces to complicate targeting, deep engagement, and fighting on the enemy's territory, rather than one's own, appear relevant to this alternative future. However, it must also be noted that many of the specific conditions that characterized this nuclear-tinged confrontation during the Cold War - large armies already in theater, extensive stockpiles, prepared defensive positions, fixed C2 and logistical infrastructures, etc. - will not likely characterize future conflicts.

Implications for National Defense Policy and Joint Concepts. This alternative future would introduce a number of severe constraints to U.S. defense policy in the future that would fundamentally alter U.S. defense posture and strategy. Recent wargames conducted by the Office of Net Assessment in the Office of the Secretary of Defense (OSD) have suggested a number of strategic consequences.

First, in sharp contrast to a world plagued by irregular warfare, in which U.S. policy would likely become more interventionary, this alternative future would lead national authorities to establish higher thresholds for expeditionary operations due to reluctance to risk expected use of WMD, except for defense of clearly vital interests. Similarly, while the proliferation of irregular warfare would seldom place U.S. national survival at risk, the increased threat of nuclear exchanges would raise questions of that nature. The assured access challenge would also increase as both state and non-state actors gain access to the ability to employ WMD munitions to deny intervention. U.S. capability and willingness to influence regional conflicts under such conditions would be reduced. To obtain their cooperation, regional allies would demand high assurance that the U.S. could protect their territories from exposure to WMD attack.

Accordingly, it is reasonable to expect that U.S. objectives in regional conflict would also be more limited. Instead of considering regime change of WMD-capable powers, U.S. authorities would more likely establish objectives to restore the status quo ante bellum. In many instances, the risks of intervention within this alternative future will simply outweigh the benefits that might be achieved. Overall, U.S. defense policy and posture would evolve to reduce exposure of U.S. interventionary forces to WMD attack as a primary objective. Major consequences would include:

- A tilt in defense strategy toward a clear preference for long-range strike, in fact expanding the range from which U.S. forces could strike the adversary.
- U.S. adoption of a framework of sanctuaries from which to conduct long range strike with relative impunity.

- Default to engagement options that rely on destruction as the primary defeat mechanism and perhaps an unavoidable trend toward "punishment" vice "control" (or control through punishment) as the overarching effects to achieve within future campaigns.
- Rising investment in air and missile defense capabilities and forces, with the goal of effective defense, even against saturation attacks.
- Strong emphasis on "short war" versus protracted struggles.
- Increasing significance of preconflict engagement to strengthen influence, build relationships, and shape conditions to reduce the chances of nuclear conflict.
- More reliance on economic leverage and information operations as a means to compel compliance with international norms.

Conditions would also compel the U.S. to consider reintroduction of tactical nuclear munitions within the force and devote deliberate attention to the issue of escalation dominance, with the goal of finding ways and means to achieve objectives without compelling adversaries to resort to the use of WMD capabilities. Preemptive capabilities and options will undoubtedly rise in significance, but be conditioned significantly by the requirement for high assurance of achieving the intended outcomes. United States access to space would remain under continuous threat to degradation by adversaries able to carry out high-altitude, nuclear-electro-magnetic pulse (EMP) bursts, generating a requirement not currently possessed by the U.S. to rapidly replace critical space-based capabilities.

Implications for Army Operational Concepts. A future defense strategy that placed high thresholds on intervention, relied heavily on long-range engagement, adopted a sanctuary framework, and endorsed a "short war" perspective would simultaneously reduce the conditions under which major land operations would be considered a desirable option. In fact, it is difficult to imagine conditions in this alternative future in which the U.S. would be likely to conduct *major* land operations *abroad* in the face of the expectation that the enemy would and could successfully employ *significant* WMD capabilities. However, those options would increase in probability against an adversary with limited WMD capabilities and limited operational reach. In those few instances in which large land operations occurred, commanders would likely endeavor to:

- Conduct strategic/operational maneuver of U.S. land formations from sanctuaries directly into objective areas within the adversary's territory, avoiding transit of staging bases and points of debarkation (PODs) vulnerable to attack by WMD.
- Close immediately with enemy forces, raising the exposure level of the adversary's own forces to use of WMD, combined with complementary capabilities to engage with fires from long range.

- Employ highly mobile formations in distributed operations with decentralized forces, thereby presenting targeting challenges and reducing the risk of catastrophic loss.

The Army would necessarily shift to battle command on the move as the standard C2 operational paradigm. The future would also require development of a suite of capabilities and tactics, techniques, and procedures (TTP) that would enable the force to operate deliberately within and through contaminated areas when necessary, effectively neutralizing the enemy's use of such areas as a buffer zone. It is also reasonable to expect a higher frequency of operations within urban areas, assuming a reluctance of the adversary to employ WMD in that environment (assumption could prove false).

With respect to force design and DOTMLPF considerations, it is quite clear that the Army would need to make a large shift in investment in science, technology, and acquisition of chemical, biological, radiological, nuclear, and explosive defense capabilities. Future force fighting platforms would require overpressure systems and, possibly, organic self-decontamination capability. EMP protection would be needed as a fundamental key performance parameter for all future electronic systems and components. Training programs would necessarily approach readiness for operations in contaminated areas as a routine condition.

Failure to Achieve Projected Advances in Military Capabilities

The third alternative future is one in which, for any number of plausible reasons, the U.S. defense community fails to achieve projected advances in military technologies in the following areas:

- Absence of capability to establish higher levels of situational understanding and maintain information superiority.
- Battle command systems that are not fully integrated horizontally and vertically.
- Failure in joint data strategies and information dissemination/management.
- Continuing shortfalls in the availability and quality of precision munitions and uncertainty in battle damage assessment.
- Insignificant progress in the reduction of sustainment demand, leading to a continuing requirement for large logistical infrastructures.
- Failure to develop advanced lift capabilities to enable the use of unimproved air and sea entry points for force projection, operational maneuver, and sustainment.
- Failure to achieve capability to conduct vertical maneuver of mounted forces.
- Lack of capability to defend effectively against the use of EMP or WMD.
- Failure to achieve a joint integrated fire control system of systems.

- Stagnation in the development of an integrated air and missile defense capability.

Should these conditions continue into the future, the capstone concept this pamphlet describes will not be achievable. True joint interdependence would remain out of reach, with the current level of joint and multinational integration remaining in effect. Similarly, the capability to effectively combine new defeat mechanisms of dislocation and disintegration would be compromised. Land operations would almost certainly be constrained to traditional linear frameworks in major combat operations against effective adversaries. Significant improvement in the strategic responsiveness and operational agility of the Army would remain out of reach, particularly for the heavy force. The net effect would be one of stagnation and perpetuation of existing joint and Army doctrine into the foreseeable future, with only modest improvement in capability and operational utility.

The Army would continue to be relevant and effective in future operational environments would continue, as it is today, but it would be only marginally smarter, marginally more responsive, marginally more agile, and marginally more lethal, mobile, and survivable.

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Glossary

AAHSS	austere access high speed sealift
AOE	Army of Excellence
BCT	brigade combat team
C2	command and control
C4ISR	command, control, communications, computers, intelligence, surveillance, reconnaissance
CIE	collaborative information environment
COP	common operating picture
CTC	combat training centers
DA	Department of the Army
DoD	Department of Defense
DOTMLPF	doctrine, organizations, training, materiel, leadership and education, personnel, and facilities
EECP	early entry command post
EMP	electro-magnetic pulse
FCS	Future Combat Systems
FDO	flexible deterrent options
FM	Field Manual
HLVTOL	heavy lift vertical take-off-and-landing aircraft
HQ	headquarters
HSOC	home station operations center
HUMINT	human intelligence
IO	information operations

ISR	intelligence, surveillance, and reconnaissance
JFC	joint force commander
JFLCC	joint force land component command
JIM	joint, interagency, and multinational
JOA	Joint Operations Area
JHSV	joint high speed vessel
JOA	joint operations area
JOE	joint operational environment
JOpsC	Joint Operations Concepts
JTF	joint task force
MCO	major combat operations
MDMP	military decision making process
NDS	National Defense Strategy
NGO	nongovernmental organization
NMS	National Military Strategy
NTC	National Training Center
OIF	Operation Iraqi Freedom
OSD	Office of the Secretary of Defense
Pam	Pamphlet
POD	point of debarkation
PVO	private volunteer organization
RC	Reserve Component
ROMO	range of military operations

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SBCT	Stryker brigade combat team
SOF	special operations forces
SPG	Strategic Planning Guidance
SSM	surface-to-surface missile
SSTOL	super-short take-off-and-landing aircraft
TRADOC	United States Army Training and Doctrine Command
TTP	tactics, techniques, and procedures
UE	unit of employment
UEy	unit of employment y
UEx	unit of employment x
U.S.	United States
WMD	weapons of mass destruction

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