# The Army's Future Force Capstone Concept

## Operational Adaptability:
### Operating under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict

## 2016-2028

### 17 December 2009

**Foreword**

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

Ideas matter.  Emerging from specific human, historical, and technological contexts, ideas affect understanding and influence behavior.  Ideas can serve as the driving force behind significant institutional change.  Because the need for change will always be with us, the exchange of ideas and conceptual development must be among our top priorities.

The purpose of TRADOC Pam 525-3-0, *The Army Capstone Concept Operational Adaptability—Operating Under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict,* is to describe the broad capabilities the Army will require in 2016-2028.  It provides a guide to how the Army will apply available resources to overcome adaptive enemies and accomplish challenging missions.  TRADOC Pam 525-3-0 articulates how to think about future armed conflict within an uncertain and complex environment.  It provides a foundation for a campaign of learning and analysis that will evaluate and refine the concept's major ideas and required capabilities.  Ultimately, prioritized capabilities that emerge from this concept and subordinate, more detailed concepts will guide changes in doctrine, organization, training, materiel, leader development and programs related to the human dimension for our Army.
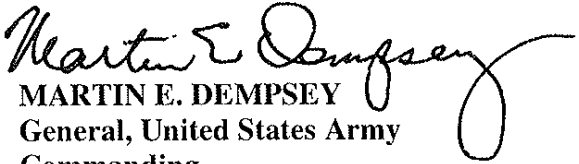
The aim of Army operations is to set conditions that achieve or facilitate the achievement of policy goals and objectives.  Future enemies will constantly adapt and seek ways to overcome Army strengths and capitalize on what they perceive as our vulnerabilities.  We operate where our enemies, indigenous populations, culture, politics, and religion intersect and where the fog and friction of war persists.  The U.S. Army must maintain its core competency of conducting effective combined arms operations in close combat to employ defeat and stability mechanisms against a variety of threats.  The U.S. Army must also hone its ability to integrate joint and interagency assets, develop the situation through action, and adjust rapidly to changing situations to achieve what this concept defines as *operational adaptability*.

Operational adaptability requires a *mindset* based on flexibility of thought calling for leaders at all levels who are comfortable with collaborative planning and decentralized execution, have a tolerance for ambiguity, and possess the ability and willingness to make rapid adjustments according to the situation.  Operational adaptability is essential to developing situational understanding and seizing, retaining, and exploiting the initiative under a broad range of conditions.  Operational adaptability is also critical to developing the coercive and persuasive skills the Army will need to assist friends, reassure and protect populations, and to identify, isolate, and defeat enemies.

Although the Army must continue to develop technology to meet future challenges, we must emphasize the integration of technology into capable formations commanded by innovative leaders who are comfortable operating under conditions of ambiguity and uncertainty.  To maximize the potential of technological developments, we must conscientiously evolve and adapt capabilities based on changes in threat capabilities and the operational environment.

We must be prepared to decentralize operations to adapt to complex and rapidly changing situations. Yet, organizational or physical decentralization alone may be insufficient to meet the challenges of the future. Leaders throughout our future force must have both the authority as well as the judgment to make decisions and develop the situation through action. Critical thinking by Soldiers and their leaders will be essential to achieve the trust and wisdom implicit in such authority. The training and education of our entire force must aim to develop the mindset and requisite knowledge, skills, and abilities required to operate effectively under conditions of uncertainty and complexity.

To achieve clarity in thinking about future armed conflict, it is critical that our Army evaluate and discuss the implications of the ideas presented in this concept. Our language must be clear and our logic must be precise. While TRADOC Pam 525-3-0 lays the conceptual foundation for Army modernization, it is only a beginning of an ongoing campaign of learning.

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Military Operations
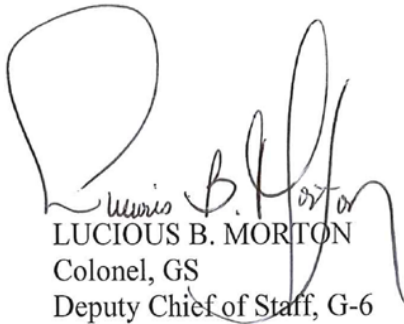
ARMY CAPSTONE CONCEPT

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**History.** This pamphlet replaces TRADOC Pam 525-3-0. This pamphlet changes the conceptual focus of the Army from major combat operations to that of operational adaptability employing full spectrum operations in uncertainty and complexity.

**Summary.** TRADOC Pam 525-3-0 describes broad capabilities the Army will require in 2016-2028. It provides a guide to how the Army will apply finite resources to overcome adaptive enemies and accomplish challenging missions. This capstone concept will lead force development and modernization efforts by establishing a common framework for conducting future joint land operations and accomplishing missions under conditions of uncertainty and complexity. TRADOC Pam 525-3-0 helps place modernization decisions in context of future armed conflict and establishes the conceptual foundation for subordinate concepts that refine the Army's vision of how it will operate in the future.

**Applicability.** This concept is the foundation for future force development and the base for subsequent developments of supporting concepts, concept capability plans, and the Joint Capabilities Integration and Development System (JCIDS) process. It supports experimentation described in the Army Capabilities Integration Center (ARCIC) Campaign Plan and functions as

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*This regulation supersedes TRADOC Pam 525-3-0, dated 7 April 2005.

the conceptual basis for developing solutions related to the future force within the doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) domains. This concept applies to all TRADOC, Department of Army and Army Reserve component activities that develop DOTMLPF requirements.

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**Suggested improvements.** Users are invited to submit comments and suggested improvements via The Army Suggestion Program online at https://armysuggestions.army.mil (Army Knowledge Online account required) or via DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Director, TRADOC ARCIC (ATFC-ED), 33 Ingalls Road, Fort Monroe, VA 23651-1061. Suggested improvements may also be submitted using DA Form 1045 (Army Ideas for Excellence Program Proposal).

**Availability.** This regulation is available on the TRADOC homepage at http://www.tradoc. army.mil/tpubs/regndx.htm.

**Contents**                **Page**

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> *In the 21st century, we do not have the luxury of deciding which challenges to prepare for and which to ignore. We must overcome the full spectrum of threats—the conventional and the unconventional; the nation-state and the terrorist network; the spread of deadly technologies and the spread of hateful ideologies; 18th century-style piracy and 21st century cyber threats.*
>
> —President Barack Obama
> United States Naval Academy, 22 May 2009

Chapter 1
Introduction

1-1. Purpose

a.   The purpose of TRADOC Pamphlet (Pam) 525-3-0, *The Army Capstone Concept Operational Adaptability—Operating Under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict,* is to describe the broad capabilities the Army will require in the 2016-2028 timeframe.  It describes how the Army will apply available resources to overcome adaptive enemies and accomplish challenging missions in complex operational environments.   The evolving operational environment and emerging threats to national security will require continuous assessment of Army modernization.  Effective modernization efforts include change across the domains of doctrine, organizations, training, materiel, leadership and education, personnel, and facilities (DOTMLPF).  Capabilities, when validated and prioritized, will drive the adaptation and innovation necessary to conduct operations consistent with the ideas in TRADOC Pam 525-3-0.  The Pam also establishes the foundation for subordinate concepts that will refine capabilities and identify others essential to ensuring Army combat effectiveness against the full spectrum of threats that the Army, as part of the joint force, is likely to confront in the future.

b.   TRADOC Pam 525-3-0 describes how the future all-volunteer Army will conduct operations as part of a joint, interagency, intergovernmental, and multinational (JIIM) team. This document is compatible with joint and Army doctrine, and the *Capstone Concept for Joint Operations* (*CCJO*) especially in recognizing that future military operations on land will remain firmly in the realm of uncertainty due to the human, psychological, political, and cultural dimensions of conflict.  TRADOC Pam 525-3-0 extends beyond current joint and doctrine concepts in its description of new ways and means of conducting future joint land operations and accomplishing missions under conditions of uncertainty and complexity.  TRADOC Pam 525-3-0 frames an answer to the strategic guidance issued in the National Defense Strategy to "develop the military capability and capacity to hedge against uncertainty, and the institutional agility and flexibility to plan early and respond effectively alongside interdepartmental, nongovernmental, and international partners."[1]

c.  TRADOC Pam 525-3-0 poses and answers the following questions.

(1)   What is the Army's vision of future armed conflict and how should the Army conduct joint land operations that facilitate strategic objectives?

(2)   What capabilities should the Army provide to joint force commanders to meet a broad range of national security threats on short notice, for indeterminate duration, and in response to unanticipated events?

d.  TRADOC Pam 525-3-0 consists of four chapters.  Chapter 1 provides an introduction to the concept and describes the need to operate effectively under conditions of uncertainty. Chapter 2 describes national security objectives that shape the Army's missions and considers emerging national security threats and challenges that Army forces are likely to confront. Chapter 3 describes the concept's central idea, supporting ideas, and the core operational actions necessary to defeat emerging threats and challenges to national security.  Chapter 4 summarizes the most important implications of this concept and places the concept in context of the Army's effort to evolve capabilities and adapt the force based on a grounded projection into the future.

1-2.  Background

a.   In the 1990s, many argued that United States (U.S.) competitive advantages in communications, information, and precision strike technologies had brought about a 'revolution in military affairs' (RMA).  RMA advocates, however, neglected many of the continuities of armed conflict and did not recognize the limitations of new technologies and emerging military capabilities.  In particular, concepts that relied mainly on the ability to target enemy forces with long range precision munitions separated war from its political, cultural, and psychological context.  Some of this work focused on how U.S. forces might prefer to fight and then assumed that preference was relevant to the problem of future war.  Literature describing the RMA and the movement known as 'defense transformation' was rooted in the belief that surveillance, communications, and information technologies would dramatically improve "battlespace knowledge," eliminate surprise, and permit U.S. forces to achieve 'full spectrum dominance' through the employment of precision-strike capabilities.  Concepts and ideas with labels such as network-centric warfare, rapid decisive operations, and shock and awe, entailed the application of "leap-ahead" capabilities that would enable small "networked" forces to win wars quickly and at low cost.

b.    RMA and defense transformation-related thinking influenced Army doctrine, organization, and modernization.  Recent and ongoing combat experiences, however, as well as analysis of the future operational environment and emerging threats, highlight the enduring uncertainty of armed conflict on land and the need for Army forces to fight under conditions of uncertainty and complexity.  This concept acknowledges that the nature of armed conflict remains firmly in the realm of uncertainty because of war's political nature, its human dimension, its complexity, and continuous interactions with determined, adaptive enemies who will employ countermeasures to U.S. surveillance, technical intelligence, and precision strike capabilities.  The concept considers not only the interaction with the enemy during armed conflict, but also the interaction with potential adversaries between armed conflicts.  Because potential adversaries will pursue countermeasures to avoid strengths and attempt to exploit what they perceive as weaknesses, the Army must take an evolutionary approach to capability development rather than pursue "leap ahead" capabilities that may prove irrelevant by the time they are mature.

1-3. Assumptions

a. The following assumptions concerning the character of future armed conflict are based, in large measure, on the complexity and uncertainty of the future operational environment, as well as an assessment of anticipated future enemy and U.S. capabilities.

(1) The network (to include global information grid, LandWarNet, collection platforms, and fusion and dissemination capabilities) cannot in and of itself deliver information superiority.

(2) Future enemies will combine conventional and unconventional tactics while fighting in complex terrain (both urban and rural) to limit U.S. forces' ability to develop the situation out of contact and achieve overmatch with long range weapons.

(3) Future enemies will attempt to counter or interrupt U.S. advantages in communications, surveillance, long-range precision fires, armor protection, and mobility.

(4) Future enemies will seek weapons of mass destruction (WMD) and ways to employ them.

(5) Future enemies will attempt to influence the will of the American people and key allies, through propaganda, disinformation, and attacks on U.S. and allies' assets at home or abroad.

(6) Advanced air and sealift capabilities that permit intertheater and intratheater operational maneuver from strategic distances, mounted vertical maneuver, and the use of unimproved ports of debarkation, will not be fielded in the quantities required in the concept timeframe (2016-2028).[2]

(7) The U.S. will continue to employ an all-volunteer force.

b. According to the Secretary of Defense, "[The Army's] conventional modernization goals should be tied to the actual and prospective capabilities of known future adversaries."[3] TRADOC Pam 525-3-0 uses the assumptions outlined above as the starting point for a grounded projection of threat capabilities and characteristics of the future operational environment. The pamphlet summarizes a broad range of threats and associated operational and tactical challenges that Army force development must address. TRADOC Pam 525-3-0 then presents a central idea and derives from the central idea capabilities essential to assist friends, reassure and protect populations, and to identify, isolate, and defeat enemies.

1-4. Meeting the challenge of uncertainty

a. Although the character of armed conflict may change significantly, noteworthy continuities in the nature of war will persist.[4] For example, every armed conflict exhibits some combination of violence, emotion, policy, chance, and risk. Changing technology and the diverse geographic, social, and political contexts in which armed conflict occurs are factors that drive change and diversity in the character of armed conflict. War's enduring nature, as well as

its shifting character will ensure that uncertainty remains a fundamental condition of any armed conflict.

b.  To operate effectively under conditions of uncertainty and complexity in an era of persistent conflict, future forces and leaders must strive to reduce uncertainty through understanding the situation in depth, developing the situation through action, fighting for information, and reassessing the situation to keep pace with the dynamic nature of conflict. Accomplishing challenging missions and responding to a broad range of adaptive threats under conditions of uncertainty will require Army forces that exhibit a high degree of *operational adaptability.*  The future force must be able to conduct effective combined arms operations in sufficient force and for an ample duration to establish security and overwhelm the enemy in their area of operations.  Building on the foundation of combined arms close-combat competencies— fighting power—the Army must hone its ability to gain, sustain, and exploit physical control over land and resources and exert psychological influence over people by threat, force, and effective area security operations.  Army forces must be able to both persuade and coerce.

c.  To adapt effectively, future leaders and their organizations must think in terms of friends (partners and allies), enemies, and the people, and be capable of securing populations while simultaneously attacking or defending to defeat enemy organizations.  Land forces, as part of JIIM teams must be prepared to prevail in protracted campaigns; to help other nations and security forces build capacity; to assure friends and allies; to support civil authorities at home and abroad; and to deter and defeat state and non-state threats.  In short, the Army forces must be prepared to assist friends, reassure and protect populations, and identify, isolate, and defeat enemies.

d.  Recent and ongoing conflicts have revealed the need to balance the technological focus of Army modernization with recognition of the limits of technology and a renewed focus on the human, cultural, and political dimensions of armed conflict.  Understanding the dynamic and complex future operational environment is the first step in framing the problem the future force will face.

## 1-5.  References
Required and related publications are listed in appendix A.

## 1-6.  Explanation of abbreviations and terms
Abbreviations and special terms used in this pamphlet are explained in the glossary.

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*In the years ahead, the United States will confront complex, dynamic, and unanticipated challenges to our national security and the collective security of our friends and allies. These challenges will occur in many forms and will be waged across the spectrum of conflict—ranging from peaceful competition to general war and at all points in between— and in all domains: land, sea, air, space and cyberspace.*—The Army of the 21st Century: A Balanced Army for a Balanced Strategy.  General George Casey, Chief of Staff of the Army

Chapter 2
Operational Context

2-1. The Army's mission and military objectives

a.  The Army will remain America's principal land force, organized, trained, and equipped for prompt and sustained combat or operations on land to defeat enemy land forces and to seize, hold, and defend land areas, and provide forces for long term area security operations abroad, including initial establishment of military government pending transfer of this responsibility to other authorities.[5]  To fulfill its purpose, the Army must prepare for a broad range of missions and remain ready to conduct full spectrum operations (such as, simultaneous offensive, defensive and stability or support operations) to contribute to the attainment of national policy aims.

b.  National security guidance requires the military to be prepared to defend the homeland, deter or prevent the use or proliferation of WMD, win the nation's wars, deter potential adversaries, protect the global commons (sea, air, space), develop cooperative security, and respond to civil crises at home and abroad.[6]

c.  Army forces must be prepared to conduct operations to help protect or advance U.S. interests in complex operational environments and against enemies capable of employing a broad range of capabilities.  Assessing and continually reassessing how adversaries are likely to employ their forces and other means to pursue strategies and objectives that threaten national interests is critical to outlining the problems of future armed conflict.

2-2. The future operational environment

a.  The ability to adapt depends on a fundamentally sound estimate of future threats, challenges, and enemy capabilities as well as an understanding of the future operational environment.  In simple terms, the future operational environment will exhibit uncertainty and complexity.  Important trends that will influence the global security situation and contribute to uncertainty and complexity include:  changing demographics; emerging patterns of globalization; shifting economic patterns; emerging energy technologies and demands; scarcity of food and water; emerging effects of climate change; natural disasters; pandemics; and competition and conflict in the domains of cyber and space.[7]  The dynamics of the future operational environment may affect regional security and generate competition for resources, ethnic tensions, mass atrocities, political instability, conventional conflict, and terrorist and criminal activity.[8]  Perhaps the greatest threat to U.S. national security lies at the nexus between hostile states with significant conventional force capability to include the capability to develop weapons of mass destruction, and transnational terrorist organizations that enjoy state support and operate from safe havens within hostile states or in lawless areas.  Understanding the dynamics of future armed conflict must be grounded in military history, an analysis of recent and on-going conflicts, the emerging operational environment, and the potential military application of emerging technologies.

b.  Recent and ongoing conflicts have highlighted possibilities as well as limitations associated with new and emerging technologies.  While surveillance, information, and precision

strike technologies have improved the joint force's ability to see its own forces, identify visible enemy, share information, and apply joint combat power, it is clear that these capabilities cannot deliver rapid or decisive victories when confronting determined, adaptive enemies in complex environments. While recent experiences have not diminished the need for technological innovation, they have highlighted the need for understanding the application of technological advancements in the context of likely missions, the operational environment, and potential enemy countermeasures.

    c. To contextualize and define the problem of future conflict, TRADOC Pam 525-3-0 considers two questions:[9]

        (1) What current or emergent phenomena are likely to influence the conduct and character of future armed conflict?

        (2) How will technologies influence operations in the near future (5 to 10 years)?

    d. Efforts to answer these questions reveal challenges for the future force that have implications for force structure, organization, operations, training, leader development, and Soldier attributes. Those challenges will place an added premium on *adaptability* and *flexibility* as applied to military leadership: viewing change as an opportunity, having a tolerance for ambiguity, adjusting rapidly to new or evolving situations, applying different methods to meet changing priorities, and cultural awareness.

## 2-3. Harbingers of future conflict

    a. Recent and ongoing conflicts. Experience during three recent conflicts—Operation Iraqi Freedom (OIF), the Second Lebanon War (2006), and Operation Enduring Freedom (OEF) reveal factors that are likely to influence the conduct and character of future war.

        (1) Operation Iraqi Freedom (OIF) 2003-2009

        (a) The U.S. Army's experience in OIF demonstrated that U.S. forces must be prepared to face a broad range of enemy organizations that possess a wide array of capabilities. Initial operations in OIF revealed a threat that included both conventional and irregular forces. Over time, coalition forces and their Iraqi partners confronted combinations of terrorist, insurgent, militia, and criminal organizations in the contexts of a coalescing and strengthening insurgency, a communal struggle for power and resources, a transnational terrorist problem, and various proxy forces supported by hostile regimes. Enemy organizations varied widely in capabilities and in the goals they pursued, but often joined in alliances of convenience to achieve short term objectives.

        (b) Throughout the conflict, enemy organizations adapted tactics and operations to changing conditions and what they perceived as coalition weaknesses. For example, during the coalition offensive operation to seize Baghdad, the Hussein regime presented U.S. forces with a mix of organized guerilla attacks and conventional defensive operations. As the Iraqi Republican Guard Corps attempted to defend Baghdad, irregular forces, including the Fedayeen

Saddam and foreign fighters, using civilian pickup trucks, rocket-propelled grenades, machine guns, and wearing civilian clothing, attacked U.S. forces along extended lines of communication and in dense urban terrain. Some enemy forces used technical countermeasures, (such as, global positioning system jammers) to degrade U.S. precision strike capabilities. The Iraqi regime also used propaganda and disinformation to erode international support for the coalition and to preserve the morale of its military forces and critical elements of the civilian population. Although the coalition's joint forces overcame those efforts and quickly achieved their initial objective of regime change, early enemy actions surprised the coalition and provided a glimpse of the difficulties that would ensue as efforts shifted to post conflict stability operations and reconstruction. Over the ensuing years, enemies in Iraq employed and constantly adapted countermeasures to evade U.S. forces and conducted attacks at times and places of their choosing. Insurgent and militia forces shifted strategies based on the perceived U.S. and coalition weaknesses such as the inability to sustain a protracted effort and difficulty countering disinformation in an alien culture. Moreover, Iraqi insurgents employed technology in innovative ways (such as, improvised explosive devices), conducted ambushes, and used complex terrain to attack coalition forces while avoiding decisive combat. The first months of OIF demonstrated that U.S. forces must be prepared to face a broad range of enemy organizations that possess the ability to employ countermeasures, including dispersion and concealment in urban and complex terrain.

(c) The adaptive nature of the enemies in Iraq demonstrated an important continuity of war—the non-linear evolution of conflict. The conflict in Iraq evolved as multiple actors pursued shifting strategies. For example, by 2006, the conflict contained strong elements of insurgency and terrorism interacting within the context of a weak state as some Iraqi government institutions and security forces became drawn into an increasingly brutal sectarian conflict. What competing forces in Iraq had in common was the use of violence to establish political control over terrain and people. As the conflict in Iraq morphed into a violent communal struggle, it became clear that coalition forces had to reframe the problem and adapt. As a result of reframing the problem, Army forces refocused their efforts on consolidation to include area security operations, military support to local governance and rule of law, and the development of capable and legitimate security forces.

(d) Throughout the conflict in Iraq, operations demanded effective integration of all arms and joint capabilities. For example, in Sadr City in the spring of 2008, American forces and Iraqi partners employed a mix of heavy combined arms units with light units and special operations forces to conduct a multinational offensive operation in dense urban terrain against a defending enemy intermingled with the civilian population to isolate and defeat the enemy. Army forces integrated mobile protected firepower with infantry, engineers, fires, Army aviation, special operations forces, an array of surveillance and intelligence collection assets, indigenous forces, information operations, joint capabilities, and relief and reconstruction efforts. Essential elements of successful operations in Iraq included a keen *understanding* of the situation, integration of all arms and joint capabilities, the development and integration of indigenous forces, and military support to governance and development. Most important was the ability to adapt operations continuously as forces developed the situation through action.

(2)  The Second Lebanon War (2006)

(a)  The Second Lebanon War provides an example of a nonstate actor (albeit with state support) using irregular and well trained guerilla forces and employing conventional, unconventional, and terrorist tactics to accomplish their objectives.  The conflict provides an example of a technologically superior army that underestimated a skilled enemy.

(b)  Drawing on lessons from two-decades of Israeli occupation as well as recent conflicts in Gaza and Iraq, Hezbollah leaders developed a broad range of capabilities to counter Israeli strengths and exploit what they perceived as Israeli weaknesses.  For its part, the Israeli Defense Force's (IDF's) thinking about war focused on adapting new technologies and ideas into a revolutionary doctrine based on effects-based operations and systemic operational design.  Proponents within the IDF came to believe that an enemy could be paralyzed by precision air attacks against military systems and, therefore, only small, "networked" land forces would be required for military operations.[10]  The Israeli Air Force removed close air support from their missions while the Army reduced armored forces and training standards.[11]  Changes in IDF doctrine, training, and organizations undermined their ability to conduct effective combined arms and integrate joint operations.  The difficulties the IDF faced when their brigades came in contact with Hezbollah's combined arms defenses highlight that determined and creative enemies will continue to evade detection from even the most advanced surveillance capabilities.  Much of what future forces must know about the enemy, such as competence, cohesion, and motivation, lies outside the reach of technology.

(c)  After the war in Southern Lebanon the IDF returned to basics, including combined arms expertise, competency in basic tactical skills, and clear thinking about operations.  The IDF emphasized the need to conduct effective reconnaissance with combined arms teams.  Air power and precision fires were reintroduced as capabilities to be employed in combination with ground maneuver forces.  The Army focused on improving combined arms capabilities through organizational redesign, leader development, and realistic training.  Reforms aimed to ensure that forces are capable of fighting under uncertain conditions and adapting quickly to change or surprise.

(d)   The IDF also emphasized the operational art to ensure that military efforts contributed to the achievement of policy goals.

(3)  Operation Enduring Freedom (OEF) 2001-2009

(a)   U.S. military experience in Afghanistan since 2002 has revealed the enduring uncertainty of armed conflict, challenges associated with joint and multinational operations, and the possibilities as well as limitations associated with long-range surveillance.  When U.S. intelligence detected Taliban forces in the Shah-i-Kot valley in March of 2002, commanders planned an offensive operation that would include American infantry battalions reinforced with Afghan militia forces.  U.S. forces focused available surveillance and target acquisition capabilities, including satellite imagery, unmanned aerial vehicles, and signals intelligence to develop the enemy situation.  As U.S. forces closed on the objective area, however, it became apparent that a motivated and capable enemy had eluded detection requiring the force to develop

the situation in close contact. Army forces had deployed with no artillery under the assumption that surveillance combined with precision fires from the air would achieve adequate effects. Precision fires, however, proved ineffective due to the difficulty of obtaining accurate target locations. Moreover, some indigenous forces proved unreliable, revealing limitations in connection with what might be accomplished "by, with, and through" partners.

(b) An overreliance on long-range surveillance, precision strike, and raiding capabilities as well as immature indigenous forces whose interests were not entirely congruent with ours, not only limited the effectiveness of our forces during Operation Anaconda, but also complicated efforts to stabilize Afghanistan after removing the Taliban from power. The first 8 years fighting in Afghanistan have highlighted the need for military forces to defeat identifiable enemy forces *and* to establish area security over wide areas of operations to facilitate the wide range of activities necessary to achieve political objectives. Experiences in Afghanistan—like those in Iraq—highlighted the need for the Army, in cooperation with the joint force and other departments within the U.S. government, to develop deployable capabilities in the areas of security force assistance, establishing governance and rule of law, developing police forces, improving basic services, building institutional capacity, and setting conditions for economic growth and development.

2-4.  Likely scientific and technological advancements

a.  The Army must consider the military application of technology as well as factors that tend to limit the reach of technology such as enemy countermeasures, limits of human cognition, geography, culture, and political factors. Recent and ongoing conflicts have highlighted possibilities as well as limitations associated with new and emerging technologies. While surveillance, information, and precision strike technologies have improved the joint force's ability to see its own forces, identify visible enemy forces, share information, and apply joint combat power, it is clear that these capabilities cannot deliver rapid or decisive victories when confronting determined, adaptive enemies in complex environments. Technological innovation, if combined with appropriate doctrine and integrated effectively into the organization and training of Army forces can provide tremendous advantages and help those forces seize, retain, and exploit the initiative.[12]

b.  Threat capabilities will also improve. For example, enemy forces will use complex and urban terrain to avoid U.S. and allied surveillance capabilities while emerging technologies will permit enemy forces to reduce equipment signatures. Future adversaries will use commercial off-the-shelf capabilities (to include information technology) to construct a well-organized, dispersed force capable of complex operations. Additionally, enemy forces will retain access to the network and recruit "technological nomads"—young, inexperienced, and digitally savvy individuals who might use active and passive techniques to attack networks leading to selective degradation of command and control, logistics, and governance information systems.

c.  Potential enemies will increase the range, accuracy, and lethality of direct and indirect fire weapons capabilities as state and nonstate threats upgrade older systems with new ammunition and readily available technology (such as commercially available geographic information system data to improve targeting). Individual combatants will be able to connect to attack assets and

extend engagement range. The combined effects of the above capabilities will present three significant threats to U.S. forces in the future operational environment: ballistic penetration, network penetration, and WMD.[13]

   d.  Several technological developments hold promise for improving future force combat effectiveness. The challenge is balancing technological opportunities with grounded projections based on lessons learned from history and recent conflicts. The Army must take an evolutionary approach to future capability development. Possible technologies include the following.

      (1)  Quantum computers could improve effectiveness and reduce vulnerability of military sensors, command and control, precision navigation, and targeting systems.[14]

      (2)  Improved sensors, sensor fusion, communications, and network capabilities offer the potential to improve information collection and sharing.[15]

      (3)  Improved vehicle system durability, reliability, and fuel efficiency offer the potential to reduce sustainment demands and extend the operational periods between required replenishments.[16]

      (4)  Improved robotics offer the potential to deploy appropriate combinations of manned and unmanned systems to perform an increasing range of tasks (such as, explosive ordnance disposal, logistics resupply, persistent surveillance, close quarters reconnaissance).[17]

      (5)  Immersive technologies offer the potential to develop virtual training areas that contain real-world objects and simulated characters to improve training and help Soldiers practice making decisions under stressful conditions.[18]

      (6)  Nanotechnology, the study of the controlling of matter on an atomic and molecular scale, offers the potential to develop increasingly strong materials of lighter weight; devices with improved electrical performance and electromagnetic pulse shielding; nano-robots for medical, sensor, and weapons applications; and genetically engineered organisms for producing alternative fuels.[19]

      (7)  Improvements in the human sciences (psychology, sociology, biology, anthropology, physiology, ergonomics, and neuroscience) and social networking offer the potential to increase human potential in knowledge, skills, aptitude, attitudes, health, fitness, and resilience. Human science applications could improve personnel management, training, leader development, organizational performance, human engineering, behavioral and physical health, resilience and Soldier and family well-being.[20]

      (8)  Renewable energy and improvements in the management of fuel and electric power requirements offer the potential for greater fuel efficiency, advances in engine designs, and improved power generation. Increased energy efficiencies hold promise for reduced logistical demand and an ability to retain freedom of movement and action across great distances.[21]

(9)  Advances in nonlethal technology offer the potential to counter enemy action with less chance of civilian casualties.

e.  Technological advantages will remain a vital component of military effectiveness.  The Army must continue to develop countermeasures to future threat capabilities while continuing to pursue technological advantages.  Enemies and adversaries, however, will counter technological advantages through emulation, adaptation, or evasion.  It is because of this continuous interaction that the Army must take an evolutionary, rather than revolutionary or "leap ahead," approach to force development.  Understanding how human beings apply technology will continue to be more important than the technologies themselves.

2-5.  Summary:  key implications and potential outcomes

a.  The uncertainty and complexity of the future operational environment will require Army units to respond to a broad range of threats and challenges.  Changing social demographics—which can affect local political conditions and questions of economic resources and scarcity—will impact the nature of armed conflict and continue to produce additional challenges as well as an increasing degree of uncertainty and complexity.  In addition to demographic trends, trends such as climate change, natural disasters, pandemics, food and water shortages, globalization, conventional and unconventional state-on-state conflict will also impact the use of American military force.  In this complex, uncertain, and rapidly changing environment, future enemies of the U.S. are likely to emulate the adaptations of recent enemies while taking advantage of emerging technological capabilities and instability to pursue their objectives and avoid what they perceive as U.S. military strengths.  Army forces must be prepared to defeat what some have described as hybrid enemies: both hostile states and nonstate enemies that combine a broad range of weapons capabilities; regular, irregular, and terrorist tactics; and continuously adapt to avoid U.S. strengths and attack what they perceive as weaknesses.

b.  Countering enemy adaptations and retaining the initiative in future armed conflict will require balanced forces capable of conducting effective reconnaissance operations, overcoming increasingly sophisticated antiaccess technologies, integrating the complementary effects of combined arms and joint capabilities, and performing long-duration area security operations over wide areas (to include in and among populations).  Army forces must also develop the capabilities necessary to consolidate gains and sustain efforts over time to ensure progress toward accomplishing policy goals in complex environments and against determined enemies.  As the U.S. Army faces the future, forces must have the ability to respond to the evolving character of conflict by developing the situation through action, and continuously assess and re-assessing the tactical, operational, strategic, and political contexts in order to defeat its enemies, support its allies, and reassure indigenous populations.  Above all else, future Army forces will require organizations, Soldiers, and leaders who can understand and adapt to the complexity and uncertainty of future armed conflict.

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*But in war everything is uncertain…all military action is intertwined with psychological forces and effects.*
                                                                                    Carl von Clausewitz, On War

Chapter 3
Meeting the Challenges

3-1. Introduction
This chapter addresses how the U.S. Army will confront future national security challenges and create conditions necessary to accomplish policy goals and strategic objectives. The chapter presents supporting ideas and core operational actions that describe how the Army will accomplish future missions.

3-2. Military problem
While considering the emerging operational environment and anticipated enemy capabilities, Army force development might be grounded in answers to the following questions: How should the U.S. Army use available and anticipated resources, to educate its leaders and organize, equip, and train units to fight and win wars as part of JIIM teams? How will Army forces engage in security force assistance and support state building efforts as well as persuade and influence relevant populations in pursuit of national policy goals? How can the Army ensure that future leaders and organizations have the ability to think in terms of friends, the enemy, and the people, and develop the ability to secure populations and resources while simultaneously attacking or defending to defeat enemy organizations?

3-3. Central idea: operational adaptability

a. To meet the challenges of future armed conflict, Army leaders and future forces must develop operational adaptability—a quality that Army leaders and forces exhibit based on critical thinking, comfort with ambiguity and decentralization, a willingness to accept prudent risk, and an ability to make rapid adjustments based on a continuous assessment of the situation. Operational adaptability is essential to developing situational understanding and seizing, retaining, and exploiting the initiative. It is impossible to anticipate precisely the character and the dynamics of future armed conflict.[22] Designing forces and educating leaders to adapt quickly to changing conditions, however, will permit Army forces to recover from surprise and exploit unforeseen opportunities.

b. Operational adaptability requires mastery of the operational art, or the ability to link the tactical employment of forces to policy goals and strategic objectives. It also requires Army forces that are proficient in the fundamentals and possess common understanding of how to combine joint, Army, interagency, and multinational capabilities to assist friends, to protect and reassure indigenous populations, and to identify, isolate, and defeat enemies under uncertain and dynamic conditions. Operational adaptability also requires cohesive teams and resilient Soldiers who are capable of overcoming the enduring psychological and moral challenges of combat.

3-4. Military solution and supporting ideas

a. Six supporting ideas contribute to the future forces' ability to apply operational adaptability in future operations; develop the situation through action, conduct combined arms operations, employ a combination of defeat and stability mechanisms, integrate joint capabilities, cooperate with partners, and exert a psychological and technical influence.

b.  *Develop the situation through action.*  Because technology cannot deliver everything that leaders and units must learn about the environment and enemy organizations, Army forces must be prepared to develop the situation through action.  Leaders must think in terms of friendly, enemy, and the people and units must have the ability to learn and adapt based on interactions with partners, the enemy, and civilian populations.

(1)  Developing the situation through action requires understanding the situation in depth, breadth, and context; acting; assessing and adapting

| **Implication** |
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| Army forces must be capable of developing the situation in close contact with the enemy and civilian populations. |

tactical and operational actions; consolidating gains; transitioning between tasks, operations; and, ultimately, being prepared to transition responsibility.

(a)  Understanding the situation in depth, breadth, and context.  Because of the complexity of the environment and the

| **Implication** |
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| Army forces must be adept at framing complex problems. |

continuous interaction with adaptive enemies, understanding in armed conflict will never be complete.  While acknowledging the enduring uncertainty of war, however, Army leaders must begin with a clear definition of the operation's purpose and pursue an understanding of the qualitative relationships between factors that interact in the context of armed conflict.  Leaders must be adept at applying design as a methodology for framing problems.  Commanders must "see themselves" (including strength, disposition, capabilities, and limitations) and strive to understand the enemy and the populations among which their forces operate.  A broad and deep understanding of the enemy entails consideration of the nature and structure of enemy organizations, their ideological or political philosophy, the strategy that they are pursuing, their sources of strength, and their vulnerabilities.  Commanders and staffs must strive to understand how friendly and enemy forces interact with the populations and factors that exert an influence on the course of events in armed conflict such as popular perceptions, local grievances, economic and social conditions, and cultural and political dynamics.  Because understanding will always be incomplete, commanders must identify assumptions on which they base plans and operations, consult experts, prioritize intelligence collection, and direct the conduct of continuous reconnaissance to develop the situation further.  Commanders and staffs must reexamine assumptions as they learn more about the enemy and the environment.

(b)  Surveillance, communications, and information technologies will contribute significantly to understanding the situation, but will make only an incomplete contribution to the estimate or assessment of the current and future situation.  Because limitations associated with human cognition and because much of the information obtained in war is contradictory or false, more information will not equate to better understanding.  Similarly, graphic depictions of the friendly situation, identified enemy, and the terrain will remain important, but any common operating picture will have limitations.  Enemy organizations will take action to avoid detection and much of what commanders want to know about the enemy, such as intentions and morale or the enemy's relationship to the population, lie outside the reach of technology and are difficult to depict graphically.  Although it will remain important to understand the systemic dimension of enemy organizations (such as, command and control, logistics, financing, information operations, methods), the complexity and uniqueness of local conditions limit the value of

aggregated data or metrics-based net assessments. The degree of understanding necessary for successful operations against enemy organizations in complex environments, therefore, will require not only the employment of technology and systems analysis, but also access to relevant expertise, physical reconnaissance, and the development of intelligence in close contact with the enemy and civilian populations.

(c) Acting. Army forces must be capable of taking action to gain visibility of enemy organizations and to understand how those organizations and our forces interact with the environment, including the population.[23] Since enemy forces will use countermeasures such as dispersion,

> **Implications**
> The Army must design forces capable of seeing and fighting across the depth and breadth of the area of operations.

concealment, deception, and intermingling with the population to limit the ability of the joint force to develop the situation out of contact, Army forces will have to fight for information. Fighting for information begins with effective reconnaissance and intelligence collection to fill in the gaps in commanders' understanding of the situation. Fighting for information will require combined arms capabilities, access to joint capabilities, specialized training, and the employment of appropriate combinations of manned and unmanned air and ground systems. Learning about the enemy and the environment will require forces to see and fight across the depth and breadth of the area of operations. Acting may entail placing something of value to the enemy at risk to force the enemy to reveal intentions. Army forces must gain and maintain contact with the enemy to observe, assess, and interpret enemy reactions and the ensuing opportunities or threats to friendly forces or the mission.

(d) Assessing and adapting tactical and operational actions. To accomplish the mission, commanders must adapt operations based on assessments of the situation and professional military judgment.[24] Operational adaptability requires commanders to evaluate progress toward mission accomplishment in concert with their staffs, superiors, subordinates, and partners. The enemy and other destabilizing factors will interact with our efforts and ensure that progress is non-linear. Therefore, commanders must continuously assess the enemy and the operational environment to ensure that their units adapt faster than the enemy and retain the initiative. To avoid confusing activity with progress, commanders should question judgments, seek alternative views, and attempt to observe the situation from outside of existing frames, paradigms, or plans. Commanders must recognize when the situation has changed sufficiently to warrant reframing the problem.

(e) Consolidate. Future Army forces must protect gains while retaining the initiative. Consolidation includes efforts to organize and strengthen the land force position with respect to the environment and the enemy. In the future, joint and Army operations must aim to sustain improvements in the security situation that permit progress toward achieving political goals over

> **Implication**
> Army forces must be capable of conducting area security operations over wide areas and support governance, reconstruction, development, and rule of law efforts.

time.[25] Consolidation of gains is vital because the enemy will act to reverse friendly force gains. Efforts to consolidate gains may include area security operations, restoration of essential

services, military support to local governance and rule of law, and the development of capable and legitimate security forces.

(f) Transition. Effective transitions are critical to mission accomplishment. Army forces must be capable of transitioning continuously between operations (for example, offensive, defensive, and stability or support operations), shifting between engagements at stand-off range to close combat, changing missions (such as, from reconnaissance to attack or from attack to area security). Transitions are also likely to involve the transfer of responsibilities to other organizations or authorities (such as, from U.S. forces to partner forces, civil authorities, or international organizations). Effective transitions require adequate resources, planning, anticipation, and command and control. The dynamic nature of the threat and environment will make many transitions hard to predict and difficult to execute.[26]

(g) Summary. Developing the situation through action demands leaders who know how to fight and also understand the complex environments in which they are operating. The Army must continue to evolve capabilities for full spectrum operations and develop leaders with the contextual understanding and the judgment to assess the situation and visualize, describe, and direct operations to seize and retain the initiative in complex and uncertain environments. Leaders must know how to achieve unity of effort among JIIM partners. Leaders and forces must interact effectively with host nation leaders and indigenous populations. In future operations, the ability to adapt rapidly to the evolving situation will be a critical requirement for mission accomplishment.

c. *Conduct combined arms operations*[27]

(1) To develop the situation through action, the Army requires competency in combined arms operations. The ability to fight as a combined arms team – to integrate fire and maneuver and appropriate combinations of infantry, mobile protected firepower, offensive and defensive fires, engineers, Army aviation, and joint capabilities – will remain the Army's most fundamental and important competency. This is because, based on the situation, integration of different "arms" compensate for the weakness of any one arm, limit the effectiveness of enemy countermeasures, and create dilemmas for the enemy.[28] In close combat, Army forces conduct combined arms operations to throw enemies forces off balance with powerful blows from unexpected directions, follow up rapidly to prevent recovery, and continue operations to destroy the enemies' will to fight. Competency in combined arms operations, based on effective unit organizations, training, and leadership, is an essential element of operational adaptability and will remain the indispensible foundation for future Army forces fighting in any form of armed conflict.

> **Implication**
> Army forces must be able to operate decentralized and have the combined arms capabilities necessary to develop the situation and seize and retain the initiative under uncertain conditions.

(2) Seizing and retaining the initiative in complex environments will require the expansion of the concept of combined arms to include the integration of efforts critical to consolidating gains and ensuring progress toward accomplishing strategic objectives. These

critical efforts might include building security forces, restoring essential services, establishing rule of law, information engagement, and facilitating political and economic development.[29]

d. *Employ a combination of defeat and stability mechanisms.* Army forces will conduct combined arms operations to defeat future enemies and stabilize environments. To accomplish those missions, the Army must be able to employ defeat and stability mechanisms to coerce and persuade enemy forces and other actors.[30]

(1) Army forces use defeat mechanisms, broad approaches used to accomplish the mission against enemy opposition. Defeat mechanisms include the following:

> **Implication**
> Future Army forces will apply appropriate combinations of defeat and stability mechanisms to produce complementary and reinforcing effects.

(a) Destroy. The application of combat power against an enemy capability so that it can no longer perform any function and cannot return to a usable condition without being entirely rebuilt.

(b) Dislocate. The maneuver of forces to obtain significant positional advantage, rendering the enemy's dispositions less valuable, and perhaps even irrelevant.

(c) Disintegrate. The disruption of the enemy's command and control system, thus degrading the ability to conduct operations while leading to a rapid collapse of the enemy's capabilities or will to fight.[31]

(d) Isolate. The denial of enemy or adversary access to capabilities that enable the exercise of coercion, influence, potential advantage, and freedom of action.

(2) A stability mechanism consolidates gains and creates conditions that contribute to stable situations consistent with policy goals. Stability mechanisms include the following:

(a) Compel. The use or threat of lethal force to establish control, effect behavioral change, or enforce compliance with mandates, agreements, or civil authority.

(b) Control. The imposition of civil order. Actions to establish control include securing borders, routes, sensitive sites, population centers, and individuals. Control may involve physically occupying key terrain and facilities.

(c) Influence. The shaping of opinions and attitudes of a civilian population through information engagement, presence, and conduct. Influence is particularly difficult to achieve and measure.

(d) Support. The establishment or strengthening of conditions necessary for other instruments of national power to function effectively.[32]

(3) The future force will have to employ combinations of defeat and stability mechanisms to produce physical and psychological effects and accomplish the mission in all

forms of operations other than operations of short duration with limited objectives and planned withdrawal (such as, raids).

d. *Integrate joint capabilities*. At increasingly lower echelons, Army leaders must be able to integrate the actions, activities, and capabilities of joint assets into operational campaigns. Joint

> **Implication**
> Army forces must be interoperable with and achieve unity of effort with joint, interagency, intergovernmental, multinational, and private sector partners.

capabilities consist of the complementary and reinforcing effects that the capabilities of one service offer to the forces of other services. Joint capabilities make Army forces more effective than they would be otherwise. For instance, the Army's close combat capability is complementary with joint fires and precision strike capabilities of the U.S. Air Force and the U.S. Navy. Exposure to air and naval precision fires can compel enemy forces to disperse and make them vulnerable to the Army's close combat capability. Similarly, land forces can operate to ensure freedom of movement and action in the aerospace and maritime domains. Army forces possess the capability to seize key terrain—terrain where enemy forces might emplace air defense, antisatellite, or antiship missiles—to destroy enemy air and sea defenses and then transition to area security operations to prevent the enemy's use of critical areas or facilities.[33] Complementary joint force capabilities—acting in concert with other services—defeat enemy forces by turning enemy countermeasures into vulnerabilities and preempting enemy action.

e. *Cooperate with partners*. Army leaders must also seek to integrate the activities of interagency, intergovernmental, multinational, and private sector partners into Army operations. Army leaders must facilitate unity of effort despite diverse cultures and interests.

(1) *Unity of effort*. Unity of effort consists of the coordination and cooperation among joint partners, interagency elements, coalition partners, and indigenous forces and leaders toward common objectives, even if the participants are not part of the same command or organization. Achieving unity of effort will depend on partners developing a mutual understanding of the environment and a common commitment to solutions that address both the causes of conflict and the sources of enemy strength. While it is difficult to imagine U.S. Army forces conducting operations that do not require cooperation with key allies, coalition partners, or indigenous forces, a lack of congruence in interests can limit the degree of unity of effort and require Army forces to assume greater responsibility for operations to ensure an outcome consistent with policy goals. Additionally, when operating with local forces in a contingency environment, indigenous force effectiveness may be limited due to capability or lack of legitimacy. Achieving unity of effort will require Army leaders to have a high degree of cultural understanding and social skills to mediate and collaborate with diverse partners to help direct efforts toward mission accomplishment.

(2) *Interagency cooperation*. As Army forces conduct operations in close coordination with a variety of other U.S. government agencies, leaders must integrate Army and interagency capabilities to achieve specific operational objectives. Interagency cooperation should seek to balance and combine the various capabilities that the Army and those agencies bring to the mission.[34] For example, the Army maintains unique capabilities that only Soldiers can provide (such as, combined arms and combat power, reconnaissance and security assets, intelligence

analysis, effective command and control, and planning and design expertise, logistics, communications and cyberspace assets and transportation). Similarly, the other agencies possess unique capabilities (such as, police and criminal investigation skills, national-level intelligence analysis, institutional development skills, financial expertise, and expertise in the rule of law). To achieve effective integration of complementary interagency capabilities based on policy guidance and the joint force commander's concept of the operation, Army leaders must possess broad knowledge to place military efforts in context and must be comfortable serving on civil military teams.

(3) *Intergovernmental and nongovernmental organization cooperation.*[35] While intergovernmental and nongovernmental organizations will continue to assume important roles in both responding to crises and orchestrating the actions of a variety of actors, Army forces must appreciate the constraints and limitations of these organizations while taking appropriate action consistent with U.S. policy to assist them in ways that alleviate human suffering without compromising the mission or the missions of these organizations.[36]

(4) *Multinational partners.*[37] While multinational partners possess unique capabilities vital to future operations, significant institutional,

| Implication |
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| Future Army forces must have communications systems compatible with those of allies and partners. |

political, and cultural differences often create operational challenges. Operating with multinational partners will remain challenging because of the demands for compatible doctrine, shared situational awareness, interconnected battlespace management systems, and linked intelligence and compatible communication systems. To cope with these challenges and to improve the effectiveness of joint and Army operations, the Army must recognize how multinational capabilities can be combined in ways that are complementary to achieving operational objectives and strategic goals. For example, should a coalition share information based on a "need to know" versus a "need to share" mentality? How should multinational forces foster common understanding and purpose with one another? Continuous engagement and emphasis on strengthening existing relationships with partners will remain essential to developing mutual trust and common understanding. To engender both mutual respect and mutual understanding between Army forces and multinational partners, the Army must increase efforts to conduct combined training, education, and cultural exchanges. Successful coalition operations will depend, in large measure, on close coordination, constant communication, and addressing issues concerning coalition strategy and operations openly and directly.

(5) *Private sector and academia*

(a) The private sector and academia will provide vital capabilities and knowledge. Army forces will continue to turn to the private sector to provide goods, a wide variety of services, and expertise. Private sector capacity will remain particularly important in logistics and enduring post-conflict reconstruction missions. Companies with a long-term presence in conflict-prone areas can also help assess the situation and provide critical expertise. When working with the private sector in overseas contingency operations, however, leaders must be aware of each company's culture, motivations, and mission and particularly the role that profits play in governing company behavior. The increased use of private military contractors can be

problematic based upon the potential higher cost, lower tolerance for risk, and challenges in integrating military, government, and company operations effectively. Problems with contracted support to military operations often include ambiguous command relationships, dependence on capabilities that might suddenly become unavailable, diminished oversight over critical functions, ethical considerations, and legal issues.[38] Army forces will require the legal and contracting expertise necessary to maintain appropriate contracted support to military operations. These problems are not insurmountable, however, and private companies will continue to provide valuable support to military operations.

(b) The complexity and uncertainty of future armed conflict will also require Army forces to consult with experts. As a result, future forces should have the capability to integrate expert advice to assist in framing problems and planning operations. The Army must also continue and expand efforts to develop leaders who have expertise in relevant disciplines through broadening experiences and education in high quality graduate programs.

f. *Exert psychological and technical influence*

(1) Because war remains fundamentally a contest of wills, prevailing in future armed conflict will require Army forces to exert a psychological and technical influence. Psychological influence efforts employ combinations of cooperative, persuasive, and coercive means to assist and support allies and partners, protect and reassure populations, and isolate and defeat enemies. Exerting technical influence entails protecting friendly information and communications and disrupting the enemy's ability to move and manipulate information.

(2) Because all military activity exerts influence and because future forces will operate among populations and in an environment of increasing transparency, leaders must consider how their units' actions will interact with the environment and influence perceptions among relevant groups

> **Implication**
> Army leader development and training must generate result in empathy for civilians and provide Soldiers an appreciation for how their actions might influence perception and the mission.

such as the enemy, partners, and the civilian population.[39] Actions should aim to influence the behavior of these groups in a way that contributes to mission accomplishment. Leader development and training must develop empathy for civilians and help Soldiers understand the second and third order effects of their actions when operating among diverse populations. Successful operations against the enemy are essential to earning the trust of the population, but must be combined with population security and communicating a commitment to sustain the level of effort necessary to defeat the enemy over time. Winning on the "battleground of perception" will often remain critical to denying the enemy safe havens and support bases necessary to mobilize resources and prepare for operations.

(3) Effective strategic engagement (informing, educating, and influencing relevant publics and actors) is critical to exerting psychological influence. Based on situational understanding and, in particular, knowledge of human behavior and the relevant cultural dynamics, strategic engagement combines physical and psychological means and correlates actions, messages, and images to clarify U.S. intentions, build trust and confidence, counter

enemy propaganda, and bolster the legitimacy of partners. Effective strategic engagement will depend, in large measure, on transparency, accountability, and credibility. While strategic engagement activities must be consistent and mutually reinforcing, execution of those activities must be streamlined and decentralized to allow adaptation at the tactical level and permit speed of action necessary to retain the initiative. Strategic engagement with U.S. and allied audiences aims to inform and educate rather than influence. The complexity of the operational environment will require Army leaders to explain how military operations and other activities are contributing to the accomplishment of policy goals. Army leaders must be able to communicate how the risks Soldiers are taking and the sacrifices Soldiers are making are contributing to the accomplishment of objectives worthy of those risks and sacrifices.

(4) Because Army forces are increasingly dependent on electro-magnetic, computer network, and space-based capabilities and because those conduits of information are converging,

> **Implication**
> Future Army forces, as part of a JIIM team, must be capable of fighting and winning on an emerging "cyber-electromagnetic battleground."

exerting technical influence will require forces that are prepared to fight and win on an emerging "cyber-electromagnetic battleground." Because technology that effects how information moves changes so rapidly, the Army must evaluate continuously what competencies and capabilities are required to gain, protect, and exploit advantages in highly contested cyberspace and electromagnetic spectrums. Army forces, as part of a joint and interagency team, must contribute to effective offensive and defensive operations to protect friendly information and communications and disrupt the enemy's ability to move and manipulate information. The Army must also avoid creating single points of failure to retain the ability to "fight through" disruptions or the interruption of communications through use of alternate digital, analog, or manual means, methods, and pathways.

(5) While developing and protecting the Army's technological advantages, the Army must remain prepared to operate degraded. Army leaders must also recognize that some of the most effective means of exerting influence will remain at the very low end of the technological spectrum. While conducting operations in and among populations, for example, the ability to build relationships with human beings and communicate through familial or tribal networks may be most effective.

## 3-5. Core operational actions

a. In addition to the supporting ideas described above, future Army forces must also conduct a set of core operational actions to meet future security challenges. The core operational actions range from engagement of allies and indigenous forces, such as security force assistance and the conduct of full spectrum operations, to defeat the enemy and ensure progress toward achieving strategic objectives.

b. *Conduct security force assistance*

(1) Security force assistance (improving indigenous security and governance institutions and capabilities) is essential to stability operations, countering irregular threats, preventing

conflicts, and facilitating security transitions. Security force assistance consists of providing indigenous units and institutions with the equipment, supporting logistics, infrastructure, training, and education necessary to improve security and foster cooperation in future operations.

(2) Developing effective and sustainable institutions is a critical aspect of security force assistance. Security force assistance efforts must develop competent units that are part of legitimate and trusted institutions. To help develop security institutions, Army leaders and Soldiers must be aware of relevant cultural, social, political, and ethnic dynamics and place indigenous leaders and systems at the center of their efforts. Units that conduct security force assistance must be sensitive to the danger of "mirror imaging" and continuously assess and reassess efforts to ensure that they are contributing to an outcome consistent with policy. Skills required for accomplishing security force assistance missions include the mediation and collaboration across cultural and language boundaries. Army leaders must recognize limits associated with efforts to operate "by, with, and through" indigenous partners; however, enemy agents, criminal actors, and corrupt officials may attempt to infiltrate indigenous forces. Units that conduct security force assistance must maintain an effective counterintelligence capability and ensure that institutions are grounded in the rule of law. Security force behavior must not only be consistent with the rule of law and international standards, but also garner public trust to ensure outcomes consistent with U.S. policy.

c. *Shaping and entry operations*

(1) Army forces will continue to contribute to conflict prevention through security force assistance delivered according to theater security cooperation plans. Army forces will conduct a broad range of theater security cooperation activities such as training foreign military forces, developing infrastructure, providing specialized capabilities, and providing other assistance to establish trust, develop relationships, and promote regional stability. Importantly, familiarity with local populations, cultures, and military forces can contribute to improved situational understanding and might also contribute to conflict prevention, or, at the very least, assist in providing the early warning of emerging crises.

(2) Army theater security cooperation efforts will include a broad range of peacetime and wartime activities that regional combatant commanders use to shape the regional security environment.[40] These activities might also aim to set favorable conditions for commitment of U.S. forces, if conflict cannot be prevented.

(a) Assisting in developing the joint force campaign plan to include deployment schedules and provision to carry out Army Title 10 U.S. Code requirements, Army Executive Agent responsibilities, and Army support to other Services.

(b) Establishing intermediate and forward staging bases as necessary to facilitate deployment and sustained build-up of combat power.

(c) Deploying sustainment capabilities, air and missile defenses, and early entry command posts as close to the theater as possible.

(3)  If efforts to prevent conflict fail, Army forces must be prepared to conduct joint forcible entry operations.  Forcible entry is likely to grow in importance due to the growing challenge of antiaccess and area denial technologies and capabilities.  Formerly state-based capabilities such as ground-to-air missiles and anticruise ship missiles are now commonly available to nonstate adversaries.  To conduct joint forcible entry operations, Army units will require combined arms capabilities and access to joint capabilities, especially intelligence, fires, logistics, airlift, and sealift to conduct successful shaping and entry operations.  To develop the situation through action and produce multiple dilemmas for the enemy, Army forces must conduct mobile, combined arms operations upon arrival to defeat enemy antiaccess strategies.

(4)  To overcome enemy antiaccess efforts, the Army will need joint air and sealift capabilities to move Army forces to unpredictable entry points.  Expanded and new joint capabilities will be required to allow joint land forces to operate at strategic and operational depth.  Acquiring new capabilities to provide distribution and maneuver from aerial and sea ports of debarkation or forward operating locations may be critical for future shaping and entry operations as well as transitions to follow on operations.  A vertical lift capability may prove essential due to enemy antiaccess capabilities, inadequate surface networks, or enemy efforts to interdict extended lines of communication.  If sufficient vertical lift capability to bypass the enemy is not available, the Army must be prepared to contribute to joint force efforts to secure points of entry and establish the necessary logistical infrastructure to support the continuous flow of land power.

(5)  Successful joint forcible entry operations and follow on operations will require protection under a joint air and missile defense umbrella.  Army forces must contribute to that protective umbrella and be capable of configuring forces for combat as rapidly as possible to minimize risk from enemy long range systems.  Army forces must be prepared to reload ships or aircraft at intermediate staging bases for final movement to the joint operational area.  The force will require advanced sealift as well as land-based prepositioned stocks in combat ready packages to conduct the rapid buildup of combat power and sustain operations over time and distance.  Army forces must be prepared to establish security of entry points to enable force flow or to secure key terrain to ensure freedom of movement and action during a transition to offensive operations.

(6)  Entry operations will require Army forces to take direct action as part of a joint force; destroy enemy capabilities essential to offensive operations or defensive integrity; establish essential command and logistical infrastructures to allow reception, staging, onward movement, and integration of Army forces; and seize and protect key terrain and facilities required to support force flow and conduct follow-on operations, extend the area of influence, and defeat the enemy.

(7)  Army forces must be prepared to integrate support from air, space, and naval forces, as well as from multinational partners to defeat enemy antiaccess efforts.  Army forces will continue to complement each other's land force capabilities and must be prepared to operate together to accomplish the mission.  Joint training will be critical to ensuring readiness for forcible entry operations.

d. *Intertheater and intratheater operational maneuver.* The Army, in partnership with the joint force, must develop the capability to deploy combined arms mobile forces into unexpected locations to achieve surprise and bypass enemy antiaccess and area denial capabilities. Forces must be able to transition rapidly to offensive operations to identify and defeat enemy forces from unexpected locations. Forces must also be prepared to conduct area security operations over wide areas to deny use of key terrain and ensure joint force freedom of movement and action in the land aerospace and land time domains. The development of capabilities such as sea-basing and joint future theater lift will be critical to generating options to joint force commander to overcome antiaccess and area denial as well as sustaining operations at the end of extended lines of communication.

e. *Full spectrum operations*

(1) The Army's proficiency in full spectrum operations—in which Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of a joint force to seize, retain, and exploit the initiative—will be a critical component to the future force's operational adaptability. To achieve operational adaptability as it relates to full spectrum operations, Army leaders and units must understand important commonalities among types of operations. For example, offensive, defensive, and stability or support operations each possess similar core elements such as combined arms competency, effective reconnaissance and security operations, and seizing the initiative. Just as successful offensive operations require aggressive reconnaissance operations and successful defensive operations require strong security capabilities (including continuous reconnaissance), stability operations will require joint forces that are capable of performing the same tasks, albeit in the pursuit of different ends and objectives, such as securing and controlling populations.

(2) Another important commonality across the spectrum of operations is the spirit of the offensive. The spirit of the offensive entails a fighting and reconnaissance-centric approach to conflict that must be applied with the flexibility of mind and depth of understanding to use any ways available—be they military, informational, diplomatic, social, cultural, economic, or political in nature—to seize the initiative. Moreover, seizing, retaining, and exploiting the initiative, will also require effective strategic engagement to reassure, persuade, or coerce relevant actors among friends, enemies, and indigenous populations. Army forces must be capable of conducting simultaneous actions—of both a military and a political nature—across the spectrum of conflict. For instance, while retaining the ability to overwhelm the enemy in tactical engagements, Army units must also be able to apply firepower with discipline and discrimination based on the context of specific situations.

f. *Conduct overlapping protection operations*

(1) To defeat the enemy's ability to identify and target U.S. forces, partners, vital infrastructure, and populations with aircraft, long-range ballistic missiles, indirect fire, and other standoff weapons systems, the Army will have to develop a broad range of advanced interoperable protection capabilities. During operations, Army forces must integrate those capabilities into area security operations that emphasize continuous reconnaissance to identify

and preempt threats while orienting defensive systems on protecting vital assets in accordance with joint force commanders' priorities.

(2)  While developing the ability to protect against emerging threats, the Army must continue to refine its ability to secure its forces, partners, and populations against threats from weapons and munitions that are readily available or easily manufactured such as improvised explosive devices, car bombs, and rockets.  Continuing to develop persistent and wide area surveillance, technical intelligence collection and detection technologies, and integrating those technologies into area security operations will prove critical to protecting the force and preserving freedom of action.

g.  *Distributed support and sustainment*

(1)  Operational adaptability will depend, in large measure, on ensuring that Army forces retain freedom of movement and action across wide areas.  Successful distributed support and sustainment must deliver continuous and uninterrupted flow of personnel, supplies, equipment, and units into and throughout the theater of operations.  It is important that joint forces achieve this logistics support without an excessive concentration of supplies or an unnecessary build-up of forces presenting a lucrative target to enemy forces.  Continuous support and sustainment to deployed joint and Army forces is critical to avoiding missed opportunities or risks associated with operational pauses.  The uncertain conditions under which Army forces operate is likely to demand decentralization of logistical support to ensure that forces have what is necessary to seize upon unexpected opportunities or protect against unanticipated dangers.

(2)  Effective sustainment can have far-reaching and significant direct and indirect impacts on the entire campaign, especially in terms of cost, Soldier health, diplomatic relations, reconstruction activities, and the ultimate success of the mission.  Effective sustainment is likely to demand Army logistics capacity sufficient to support partners as well as to fulfill the Army's role in supporting the joint force.  While the Army must continue to use contract support to enhance sustainment, the forces must retain the capability to sustain operations in unsecure, austere environments.

h.  *Network enabled mission command*

(1)  U.S. Army combat experience since 2001 and the anticipated demands of future armed conflict highlight the need to decentralize command as a critical element of operational adaptability.  The uniqueness of local conditions and uncertainty associated with the interaction of Army forces with the enemy and complex environments will confound efforts to develop an aggregated common operational picture as a basis for centralized decision making or control of forces. Future operations, therefore, must remain grounded in the Army's long-standing concept of mission command, defined as the conduct of military operations through decentralized execution based upon mission orders for effective mission accomplishment.  Successful mission command results from subordinate leaders at all echelons exercising disciplined initiative with the commander's intent to accomplish missions.  It requires an environment of trust and mutual understanding.

(2) Network enabled mission command will require an institutional culture that fosters trust among commanders, encourages initiative, and expects leaders to take prudent risk and make decisions based on incomplete information. Network enabled mission command will also require commanders, staffs, and logisticians who understand the complexities of the emerging operational environment, as well as the highly-integrated joint, multinational, and interagency characteristics of full spectrum operations.

| **Implications** |
| --- |
| Because of the uncertainty and complexity inherent in the future operational environment, adopting design as a process for framing problems is critical. |
| Because the network and space system capabilities may be compromised and subject to enemy actions, units will have to be capable of operating in a degraded mode. |
| Fighting under conditions of uncertainty will demand that command and control systems obtain, process, synthesize, and disseminate information in a timely manner and that units in contact with the enemy and civilian populations use initial estimates to focus reconnaissance operations that aim to develop the situation further through action. |

(3) Emerging technological capabilities associated with the network (such as, global information grid, LandWarNet, collection platforms, fusion and dissemination capabilities through the timely horizontal and vertical flow of information) can enable mission command if systems improve interoperability, help synthesize information into knowledge, operate in austere environments and on the move, and provide shared situational understanding to the lowest possible levels. The sheer amount of information available, the limits of human cognition, and the presence of contradictory or false information, however, will prevent the network, in and of itself, from delivering information superiority. The Army must design forces and educate leaders to take advantage of network capabilities while ensuring that those forces and leaders are capable of conducting operations consistent with the concept of mission command.

(4) While technology can enable operational adaptability, ensuring a sound conceptual foundation for operations is the most important prerequisite for effective decentralized operations. Commanders develop mutual understanding of complex problems through design, a methodology for applying critical and creative thinking and framing problems through discourse and collaboration. Commanders use design and situational understanding as the basis for visualizing and describing complex operations, and then continually reassess the situation. A clear commander's intent and concept of the operation that describes how decentralized operations and efforts combine to accomplish the mission is critical to integrating efforts of subordinate units and enabling subordinate commanders to take initiative.

(5) Decentralized operations associated with mission command will require leaders at lower levels of command to assume greater responsibility for the accomplishment of the joint force commander's campaign objectives. Leaders must integrate their efforts with JIIM partners and string actions and activities together into campaigns. Because it will be important to aggregate the wisdom of leaders at lower echelons to adapt operations and retain the initiative, leaders must be sensitive to the operational and strategic implications of their actions and be prepared to make recommendations to senior commanders as they develop the situation through action and identify opportunities. The Army must revise its leader development strategy to prepare leaders through training, education, and experience for these increased responsibilities.

(6)  Decentralized operations place a premium on disciplined, confident small units that can integrate joint capabilities and fight together as combined arms teams.  Leaders must prepare their units to fight and adapt under conditions of uncertainty and, during the conduct of operations, must also ensure moral conduct and make critical time-sensitive decisions under pressure.  Conducting effective decentralized operations will require a high degree of unit cohesion developed through tough, realistic training and shared operational experience.  The Army must refine its capability to adapt training and the mission, threat, or operational environment changes while ensuring that individual and collective training fosters adaptability, initiative, and confidence.

*So our future security and prosperity depends on how much—how we respond to this rapidly changing and complex environment, how well we adapt.  We can choose to look backwards and shore up what we're comfortable with, keep doing what we're doing, what we like to do, but that is not necessarily the right path.*
Michele Flournoy, Under Secretary for Policy, U.S. Department Of Defense

Chapter 4
Conclusion

a.  The central idea of TRADOC Pam 525-3-0, operational adaptability, depends fundamentally on educating and developing leaders capable of understanding the situation in depth, critically assessing the situation, and adapting actions to seize and retain the initiative.  Leaders must direct efforts to fight for information, consolidate gains, and transition between tasks and operations to ensure progress toward achieving policy goals and strategic objectives.  Accomplishing the mission will demand leaders capable of integrating their efforts with a broad range of partners in complex environments and among diverse populations.  Army forces must be designed to fight for information and develop the situation in close contact with the enemy and civilian populations.  Forces must also be capable both of rapid operations over extended distances (such as, forcible entry operations and offensive operations) and capable of sustaining operations over time and across wide areas.  The uncertainty and complexity of future operations will demand forces that can operate in a decentralized manner consistent with the concept of mission command.  Decentralized operations will require combined arms capabilities and access to joint capabilities at low levels.  Close combat with the enemy and operations in and among the population will place extraordinary physical, moral, and psychological demands on Soldiers and small units.  The Army must build cohesive teams and train, educate, and prepare Soldiers to cope with those demands and accomplish the mission.

b.  The idea of operational adaptability also applies to the institutional Army—the generating force.  Leaders in the generating force must be able to think critically about the implications of a continuously evolving operational environment and threats to national security.  Like the operating forces, the generating force must continually assess and adapt at a pace faster than before to direct and align modernization, readiness, and capability development processes to ensure the operating force has the doctrine, training, education, and materiel needed to fight and win.

c.  TRADOC Pam 525-3-0 describes broadly the problem of future armed conflict and how the Army will conduct operations.  It is the foundation for the development of the subordinate concepts that make up the Army Concept Framework.  First is the *Army Operating Concept*, which takes the ideas and tasks from this pamphlet and translates them into specific operational and tactical level actions.  Next are functional concepts that describe in detail aspects of mission command, intelligence, movement and maneuver, fires, sustainment, and protection derived from this pamphlet and the *Army Operating Concept*.  Both the *Army Operating Concept* and the functional concepts organize the required future capabilities by warfighting functions for combat developers to consider.  Together, the concepts in the Army Concept Framework serve as the foundation for Army capabilities development and the Army's Campaign of Learning.  The Army will evaluate the ideas contained in these concepts and the assumptions on which they are based to ensure that the Army's preparation for the demands of future war rest on a solid conceptual foundation.

d.  TRADOC Pam 525-3-0 gives direction to the evolutionary development of operating force and institutional capabilities based on a grounded projection of future armed conflict that will produce an Army able to think in terms of friendly forces, the enemy, and the people and possessing the flexibility to secure populations while simultaneously attacking to defeat enemy organizations for the purpose of gaining and exploiting physical control and psychological influence over people, land, and resources.

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Appendix A
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This section contains no entries.

Section II
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Appendix B
Key Required Capabilities

This appendix identifies new, critical, or different capabilities required to fight and win in future armed conflict. They are not all encompassing. The capabilities based on the 2005-2008 Army Concept Strategy should be considered valid until they are evaluated to determine if they are consistent with the ACC and its derivative Army Operating Concept and Army Functional Concepts. The common theme to all of the required capabilities listed below is generating greater adaptability and versatility across the force to cope with the uncertainty, complexity, and change that will characterize future armed conflict. The Army Operating Concept and the Army Functional Concepts will refine the following broad capabilities.

**B-1. Battle Command**

a. **Mission command.** Achieving the potential mission power of Army forces requires a balanced and comprehensive approach to developing capabilities that advance both the art and science of mission command and are integrated and synchronized from inception through employment. Mission command capabilities must enable leaders at all echelons to exercise the art and science of mission command to maximize the effectiveness of the force.

b. **Improve JIIM interoperability.** Because achievement of favorable outcomes in complex environments requires unified action, Army units must be interoperable with JIIM partners. The demands of the future operational environment will require capabilities beyond those organic to land forces which place a greater reliance on assets held by other services. The future force must have increased access to joint, strategic, and coalition assets.

c. **Train as we will fight.** The Army must refine its capability to adapt training as the mission, threat, or operational environment changes while ensuring that individual and collective training fosters adaptability, initiative, and confidence. Conducting effective decentralized operations will require a high degree of unit cohesion developed through tough, realistic training and shared operational experience.

d. **Educate for large scale operations**. Training and education for the integration of all arms, joint, and coalition capabilities will reduce risk. As structures, equipment, and training focus on the most likely tasks we expect to conduct over the next few years, it is vital that the Army sustains expertise for large scale operations, especially in the areas of deployment, movement, logistics, command and control, combined arms operations, and integration of joint capabilities.

e. **Command forward and from mobile platforms.** The growth in nonterrestrial communications systems (such as, global information grid, LandWarNet, collection platforms, fusion, and dissemination capabilities) will change the way the future force manages command and control. Network systems should improve interoperability, help synthesize information into knowledge, operate in austere environments and on the move, and provide shared situational understanding to the lowest possible levels. Future force commanders must be able to command forward from a suitably protected platform. Satellite communications at brigade combat team

level and below should enable communications over greater distances between all types of headquarters. Future force units require more assured and robust communication systems down to the lowest levels.

f. **Fight degraded.** Because the "network" may be compromised and subject to enemy actions, units will have to be capable of fighting when networks are degraded. The network must not be regarded as a substitute for elements of combat power and as a means of achieving efficiency in manpower, firepower, protection, and mobility. The degree of understanding necessary for successful operations against enemy organizations in complex environments will require not only the employment of technology and systems analysis, but also access to relevant expertise, physical reconnaissance, and the development of intelligence in close contact with the enemy and civilian populations.

g. **Apply design and develop interoperable design and planning processes.** Because of the uncertainty and complexity inherent in the future operational environment, adopting design as a process for framing problems is critical. Because U.S. interagency, intergovernmental, and international partners reside outside traditional military command and control structures, unity of effort requires the development of common or interoperable design and planning processes in order to establish a shared understanding of the situation, the problems, goals and objectives, and roles and responsibilities.

h. **Exert technical influence.** Because technology that effects how information moves changes so rapidly, the Army must evaluate continuously what competencies and capabilities are required to gain, protect, and exploit advantages in highly contested cyberspace and electromagnetic spectrums. The Army must have redundant systems to avoid creating single points of failure to retain the ability to "fight through" disruptions or the interruption of communications through use of alternate digital, analog, or manual means, methods, and pathways.

i. **Defend Army networks and attack the enemy's.** Because Army forces are increasingly dependent on electromagnetic, computer network, and space-based capabilities and because those conduits of information are converging, exerting technical influence will require forces that are prepared to fight in an emerging "cyber-electromagnetic battleground." The ability to protect the future forces' freedom of action within computer-generated space or cyberspace will be important in the future operational environment. Defeating highly capable adversaries, who engage in network attack, may require our own forces to develop sophisticated countercommand and network attack capabilities. This capability need not necessarily be organic to land forces and is certain to require a joint and interdepartmental effort.

j. **Reduce information overload.** More information does not impart better understanding. Because limitations associated with human cognition and because much of the information obtained in war is contradictory or false, more information does not equate to better understanding. Limits of aggregated data: although it will remain important to understand the systemic dimension of enemy organizations (such as, command and control, logistics, financing, information operations, methods), the complexity and uniqueness of local conditions limit the value of aggregated data or metrics-based net assessments.

k. **Understanding the situation.** Because of the complexity of the environment and the continuous interaction with adaptive enemies, understanding in armed conflict will never be complete. Understanding of the enemy entails consideration of the nature and structure of their organizations, their ideological or political philosophy, the strategy that they are pursuing, their sources of strength, and their vulnerabilities. Commanders must have access to complementary interagency capabilities such as police and criminal investigation skills, national-level intelligence analysis, institutional development skills, financial expertise, and expertise in the rule of law. Army leaders must possess broad knowledge to place military efforts in context and must be comfortable serving on civil military teams to achieve effective integration. Commanders must identify assumptions on which they base plans and operations, consult advice and integrate experts to assist in framing problems and planning operations, prioritize intelligence collection by pushing analysis capabilities and intelligence products down to lowest levels, and direct the conduct of continuous reconnaissance to develop the situation further.

l. **Conduct reconnaissance to develop the situation.** The degree of understanding necessary for successful operations against adaptive enemy organizations in complex environments will require not only the employment of technology, but also the conduct of reconnaissance and the development of intelligence in close contact with the enemy and civilian populations. Enemies will use all means at their disposal to thwart our communications, intelligence, and surveillance capabilities. The future force must be able to develop the situation and collect intelligence through physical reconnaissance and human intelligence. The U.S. Army must build and train forces capable of conducting effective combined arms, air-ground reconnaissance of the enemy, understanding cultural, as well as physical geography, and developing and sustaining human intelligence networks.

m. **Fight for information.** Because of technological limitations, enemy countermeasures, and enemy propensity to operate among the people, Army units will have to fight for information and adapt continuously to changing situations; develop the situation through action; and collect intelligence through physical reconnaissance, persistent surveillance, and human intelligence.

n. **Provide timely and accurate information.** Fighting under conditions of uncertainty will require organizations and command and control systems to synthesize and disseminate relevant intelligence in a timely manner to units in contact with the enemy and civilian populations. Units must be able to fight and report simultaneously.

**B-2. Movement and maneuver**

a. **Project forces to positions of advantage**. Since the late 1990s, the main driver for the projection of land forces to positions of advantage both maneuver within and between theaters has been to achieve rapid effect at reach. This requirement endures. However, protracted conflict demands less of an emphasis on rapid projection and places more of an emphasis on sustainability. Therefore, Army units must be both an expeditionary and campaign quality force to respond to a broad range of threats and challenges anywhere in the world, on short notice, for long duration.

b. **Support and sustain operations from and across extended distances**. Operations will be increasingly dispersed which will increase the support challenge faced by logistic force elements. Operations will no longer feature "safe" areas - all elements of the deployed force will be potentially exposed to risk and require protection on par with the supported combat arms units. Support to interagency actors and humanitarian support will increase the stress and demand on support and sustainment capacity. The management, handling, and accounting for this equipment, plus large stocks of ammunition, results in more specialists being embedded in combined arms units. Sustainment will be delivered by an increasingly diverse logistic force comprising: regular military personnel, reservists, civil servants, contractors - who may be locally recruited, deployed U.S. nationals, or third country nationals. This will have a major impact on force protection, provision of military forces required to mitigate contractor failure, and impact on provision of support. The future force support and sustainment structure will also have to provide support to the JIIM actors in the force. Delivering humanitarian support during stability operations may place an extra burden on the sustainment system. Because of the lack of advanced strategic lift and adversary employment of strategic preclusion, operational exclusion (antiaccess), and tactical access denial capabilities, Army units must be able to conduct and sustain full spectrum operations from and across extended distances.

c. **Operate decentralized.** Because the unique nature of local conditions will demand that the lowest echelons have access to the array of combined arms and joint capabilities necessary to deal with the uncertainty of the future operational environment, the Army must decentralize competency in full spectrum operations as well as the ability to effectively transition between offensive, defensive, and stability, or support operations must exist at the lowest possible echelons. Combined arms and access to joint capabilities at all levels is essential.

d. **Fight in close combat.** Because operations among the populace and within urban terrain requires increased discrimination and limitations on the use of force, the joint force will have to conduct close combat operations informed by intelligence against a broad array of threats in the land domain. Soldiers, whether mounted and dismounted, must possess lethal self-protection capability and the ability to defeat like systems while hosting nonlethal systems to enable operations among populations and be interoperable with JIIM partners.

e. **Conduct area security over wide areas.** Future operations will require Army forces capable of protecting *populations*, friendly forces, installations, routes, borders, extended infrastructure, and actions (such as, reconstruction, development of security forces, and establishment of local governance and rule of law). Army forces must also be prepared to conduct area security operations to deny the enemy's use of an area to prepare for or conduct operations that threaten joint forces, partners, or populations.

f. **Conduct flexible civil security.** Because securing populations are an essential mission, Army will be required to plan for civil security, adapt tactics that boost rather than cripple civilian support, and provide means to redress civilian harm.

g. **Improve civil support readiness.** Army forces must have the capability to integrate into the U.S. Federal civilian command structure for domestic contingencies such as natural or manmade disasters and terrorist attacks in the U.S. and its territories. Such events may require the Army to support civil authorities for domestic emergencies and designated law enforcement

activities.  Should the scope of a domestic emergency exceed the capabilities of the National Guard, the regular Army will be prepared to deploy.

h.  **Build partner capacity.**  Because successful operations are likely to require effective security force assistance and civil military operations (such as, support governance, rule of law, and capacity building) in a multinational environment, units must be capable of conducting operations with partners and among diverse populations.  The Army must have the capability to develop the indigenous capacity necessary to achieve self-determination.

## B-3.  Fires

a.  **Decentralize access to joint fires.**  In future armed conflict, timely access to joint fires will be fundamental to the prosecution of routine operations by all deployed Army elements. Joint fires will need to be integrated with maneuver more widely and at lower levels than has been the case in the past.  Joint fires must be available at lower levels down to at least squad across the force--and this access includes those operating in support of indigenous forces.

b.  **Balance precision and suppressive fires.**  The future operational environment demands precision from all fires supporting land forces.  Enhancing precision fires will minimize collateral damage and will enhance operational legitimacy.  Despite this emphasis on precision, current and ongoing operations demonstrate that the requirement for suppressive fires will endure.  The requirement to engage area targets or to engage targets over time to deny the enemy freedom of action will also endure.  Future forces will need to retain some organic area attack or suppressive capability in sufficient numbers to support units conducting decentralized combined arms operations dispersed over wide areas.

## B-4.  Protection

a.  **Ensure overlapping protection.**  The fixed bases required to enable full spectrum operations may need to be in the heart of population centers, which will attract attacks and indirect fire from enemy elements.  The improvised explosive device threat will remain and continue to proliferate.  Other sophisticated technologies and techniques will be used by the adversaries.  These threats will also threaten air and maritime platforms.  Because future enemies will be thinking, adaptive forces that strive for increasing lethal capabilities aimed at perceived seams and gaps, the Army future force must provide innovative, active, and passive protection capabilities that can be adjusted to a broad range of conditions.

b.  **Provide mobile protected firepower throughout the force**.  Because of technological limitations and enemy countermeasures, units will have to operate under conditions of uncertainty in and among the populace, fight for information, conduct area security and decentralized operations over large areas, develop the situation through action, and adapt continuously to changing situations.  Units will, therefore, require the manpower, assured mobility assets, firepower (lethality), and protection to close with the enemy.  Mobile protected firepower must deliver precise lethal and nonlethal effects and be interoperable with JIIM partners and permit soldiers to use force with discrimination when the enemy is operating in and among the people.  Integrated battle command systems will support mobile protected firepower

in a network that provides adequate communications and situational awareness to both mounted and dismounted personnel in complex terrain.

c. **Develop protected general purpose vehicles.** The rise--and ready availability--of advanced technology and cheap improvised explosive devices provide the greatest challenge to future force movement. Adversaries will target the U.S. where it is predictable. Urbanization will canalize Army forces and make the forces vulnerable. The improvised explosive devise threat has led to an increased demand for mobile protected firepower and combat engineers to cover assured mobility. Land forces need general purpose vehicles broadly suited to different types of terrain and threats, yet the demands of current operations are resulting in a proliferation of increasingly specialized vehicles, leading to mixed fleets which do not have broad utility. Force protection considerations will continue to constrain the discretion of commanders in taking risks as they strive to balance the requirements of conducting operations with the protection of troops – without becoming risk averse.

d. **Provide light forces with protected mobility**. Specific attention should be given to the protection of light forces. They have, until now, been viewed as discretionary users of protected mobility vehicles, as it has been assumed that providing them with heavier vehicles might make them unable to conduct the full range of light force tasks. Light forces will need access to protected mobile vehicles when required and retain mission functionality with a degraded or interrupted network. These vehicles should also have sufficient weapons capability to deliver rapid, accurate, lethal, overwhelming direct fire against enemy infantry under all conditions of battle. Protected mobility vehicles should have capabilities to close with and eliminate the threat by synchronizing tactical reconnaissance (manned and unmanned), maneuver, fires, protection, close combat assault, and sustainment. Although this may constrain their ability to operate with a light footprint, it is likely to be mandated in order to provide sufficient levels of protection for deployed soldiers and civilians. This trend may also enhance the ability of light forces to assume wider roles.

e. **Improve sense and warn capability**. The increased indirect fire and missile threat against the deployed force will continue to be a major risk, requiring solutions to counter rockets, missiles, artillery, and mortars. Army forces must be able to identify points of origin with sufficient accuracy to enable conduct and preemptive fires. The future force must develop solutions using joint assets, and focus on protecting the most vulnerable, primarily static, elements of the deployed force.

f. **Protect the logistics chain**. The whole of the logistic chain, from the U.S. and forward bases to the deployed forward operating bases, will require protection and this requires joint solutions and encompasses civilian actors. Future force sustainment personnel must be warfighters first and logisticians second, and the firepower, protection, and the mobility these Soldiers receive should allow them to support the combined arms. The use of fixed bases may provide opportunities for greater use of contractors to reduce the demands on logistic personnel. In the future, private military security companies may provide and protect logistic support to alleviate the burden on deployed land forces. Greater use of logistic contractors will not significantly reduce the protection responsibilities of the commander.

g. **Integrate JIIM partners into overlapping protection.**  Because supporting partners, allies, and other groups which may lack advanced protection capabilities, U.S. efforts must include providing some degree of protection to partners.

**B-5.  Sustainment**

a.  **Expand the sustainment support network**.  Sustainment planning and execution requires the development of a support network.  The support network is a joint structure with land forces sustainment elements providing an integral part of the solution.  It will be a single network spanning the future force and industry, linking points of production to points of use.  The support network will deliver, govern, and track the location, movement, configuration, and condition of materiel, people, and related information.  The challenge will be to synchronize supply and demand across the support network in order to maximize the freedom of action of the operational commander.  The support network will enable resources to be shared more effectively between force elements providing the commander with greater agility to prosecute operations and improve flexibility in managing "surges" of sustainment activity.

b.  **Man deployed units fully.**  The requirement to generate fully manned, stable, and robust deployable units is "core" to the Army and its way of warfare.  The Army must build cohesive teams and train, educate, and prepare Soldiers to cope with the demands of enduring operations and mission accomplishment.  Identifying the correct balance between regular and reserve forces will be challenging, particularly given that many capabilities are currently maintained within the reserve, yet will be required on an enduring basis.  Fully manned land forces are a prerequisite for operational success.

c.  **Develop resilient Soldiers**.  The demands of the operational environment and specifically the enduring nature of future armed conflict demands resilient Soldiers.  Resilient Soldiers are those that readily recover from or adjust to stress; for which they can be prepared.  They are motivated to succeed on operations and subsequently, after recuperation and training, are prepared to return to operations time after time.

d.  **Account for expanded executive agent responsibilities**.  Because we have relearned the extent of our responsibilities for executive agency as a major factor in war, committing manpower, demanding force protection, and causing many other second order effects, the future force must account the impacts of such functions (such as, detainee operations, inland transportation, port operations, and others) as an enduring feature of the operational environment.

f.  **Individual skills and expertise**.  Because future armed conflict will remain in the realm of uncertainty, Army forces demand skills and expertise that, although present within the Army, are not specifically designed into the structure of operating forces or are not trained, tracked, or developed by the military (often these are civilian skills of reserve component personnel).  The Army must develop a scheme for identifying and tracking the relevant skill sets that are resident in the Total Force so that it can apply this expertise to future demands.

**Glossary**

**Section I**
**Abbreviations**

| | |
|---|---|
| ARCIC | Army Capabilities Integration Center |
| CCJO | Capstone Concept for Joint Operations |
| DOD | Department of Defense |
| DODD | Department of Defense Directive |
| DOTMLPF | doctrine, organizations, training, materiel, leadership and education, personnel, and facilities |
| FM | field manual |
| IDF | Israeli Defense Force |
| JIIM | joint, interagency, intergovernmental, multinational |
| JP | joint publication |
| OEF | Operation Enduring Freedom |
| OIF | Operation Iraqi Freedom |
| Pam | pamphlet |
| TRADOC | U. S. Army Training and Doctrine Command |
| U.S. | United States |
| WMD | weapons of mass destruction |

**Section II**
**Terms**

**alliance**
(DOD)  The relationship that results from a formal agreement (such as, treaty) between two or more nations for broad, long-term objectives that further the common interests of the members (Joint Publication (JP) 1-02).

**antiaccess**
Actions taken by an enemy to deter, slow, or prevent entry of U.S. forces to an area of responsibility.

**area security**
A form of security operations conducted to protect friendly forces, installations, routes, and actions within a specific area (FM 3-90).

**Army capstone concept**
A capstone concept is a holistic future concept that is a primary reference for all other concept development.  This overarching concept provides direct linkages to national and defense level planning documents.  A capstone concept drives the development of subordinate concepts.  TP 525-3-0 drives the development of Army operating and functional concepts as well as concept capability plans (TR 71-20).

**Army concept framework**
The body of work (capstone concept, operating concept, and functional concepts) describing fundamental ideas about future Army operations and key required capabilities.

**battle command**
The art and science of understanding, visualizing, describing, directing, leading, and assessing forces to impose the commander's will on a hostile, thinking, and adaptive enemy. Battle command applies leadership to translate decisions into actions to accomplish missions (FM 3-0).

**building partnerships**
The ability to set the conditions for interaction with partner, competitor, or adversary leaders, military forces, or relevant populations by developing and presenting information and conducting activities to affect their perceptions, will, behavior, and capabilities (Deputy Under Secretary of Defense Policy Memorandum, Joint Capability Areas).

**building partner capacity**
The ability to assist domestic and foreign partners and institutions with the development of their capabilities and capacities - for mutual benefit - to address U.S. national or shared global security interests (Deputy Under Secretary of Defense Policy Memorandum, Joint Capability Areas).

**civil support operations**
DOD support to U.S. civil authorities for domestic emergencies, and for designated law enforcement and other activities (JP 3-26).

**coalition**
(DOD) An ad hoc arrangement between two or more nations for common action (JP 1-02).

**combat power**
The total means of destructive, constructive, and information capabilities that a military unit or formation can apply at a given time. Army forces generate combat power by converting potential into effective action (FM 3-0).

**combined arms**
Synchronized and simultaneous application of the elements of combat power to achieve an effect greater than if each element of combat power was used separately or sequentially (FM 3-0).

**comprehensive approach**
An approach that integrates the cooperative efforts of the departments and agencies of the U.S. government, intergovernmental and nongovernmental organizations, multinational partners, and private sector entities to achieve unity of effort toward a shared goal (FM 3-07).

**computer network operations**
Comprised of computer network attack, computer network defense, and related computer network exploitation enabling operations (JP 1-02).

**conflict**
(DOD)  An armed struggle or clash between organized groups within a nation or between nations in order to achieve limited political or military objectives.  Although regular forces are often involved, irregular forces frequently predominate.  Conflict often is protracted, confined to a restricted geographic area, and constrained in weaponry and level of violence.  Within this state, military power in response to threats may be exercised in an indirect manner while supportive of other instruments of national power.  Limited objectives may be achieved by the short, focused, and direct application of force (JP 3-0, FM 100-8).

**cyberspace**
(DOD).  A global domain within the information environment consisting of the interdependent network of information technology infrastructures, including the internet, telecommunications networks, computer systems, and embedded processors and controllers (JP 1-02).

**cyberspace operations**
The employment of cyber capabilities where the primary purpose is to achieve military objectives or effects in or through cyberspace (Chief Joint Chiefs of Staff Memorandum (CJCS-M-0527-08).

**degradation**
Conditions that impair or reduce operational effectiveness between or within communications nodes or networks.  Degradation can occur due to deliberate and unintentional friendly or enemy actions, materiel breakdown, natural atmospheric effects, and geospatial interference.  There are degrees of degradation, which can cause minimal effect or complete interruption of capabilities.  Adversaries or enemies may deceptively degrade in order to impede operations undetected or for eavesdropping purposes.

**design**
Design is a method of critical and creative thinking for understanding, visualizing, and describing complex problems and the approaches to resolve them.  Critical thinking captures the reflective learning essential to design.  Creative thinking involves thinking in new, innovative ways while capitalizing on imagination, insight, and novel ideas (FM 5-0).

**disintegrate**
Disrupt the enemy's command and control system, degrading the ability to conduct operations while leading to a rapid collapse of enemy's capabilities or will to fight (FM 3-0).

**dislocate**
To employ forces to obtain significant positional advantage, rendering the enemy's dispositions less valuable, perhaps even irrelevant (FM 3-0).

**electronic warfare**
Military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy.  Electronic warfare consists of three divisions: electronic attack, electronic protection, and electronic warfare support (JP 1-02).

**full spectrum operations**
The Army's operational concept:  Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results.  They employ synchronized action—lethal and nonlethal—proportional to the mission and informed by a thorough understanding of all variables of the operational environment.  Mission command that conveys intent and an appreciation of all aspects of the situation guides the adaptive use of Army forces (FM 3-0).

**global commons**
Global commons are geographical areas that are outside the jurisdiction of any nation, and include the oceans outside territorial limits and Antarctica.  Global commons do not include contiguous zones and fisheries zones of foreign nations (DODD 6050.7).

**hostile environment**
(DOD)  Operational environment in which hostile forces have control as well as the intent and capability to effectively oppose or react to the operations a unit intends to conduct (JP 3.0).

**hybrid threat**
A threat that simultaneously employs regular and irregular forces, including terrorist and criminal elements to achieve their objectives using an ever-changing variety of conventional and unconventional tactics to create multiple dilemmas (Operational Environment, 2009-2025.)

**indirect operations**
Operations accomplished by, with, and through other organizations in which the U.S. takes on the role of funding, training, and or advising.  Examples include counter drug, foreign internal defense, or unconventional operations.

**information**
(DOD)  Facts, data, or instructions in any medium or form.  The meaning that a human assigns to data by means of the known conventions used in their representation (JP 1-02).

**information engagement**
The integrated employment of public affairs to inform U.S. and friendly audiences; psychological operations, combat camera, U.S. government strategic communication and defense support to public diplomacy, and other means necessary to influence foreign audiences; and, leader and Soldier engagements to support both efforts.  Commanders use continuous information engagement shaped by intelligence to inform, influence, and persuade the local populace within limits prescribed by U.S. law (FM 3-0).

**information operations**
The integrated employment of the core capabilities of electronic warfare, computer network operations, psychological operations, military deception, and operations security, in concert with specified supporting and related capabilities, to influence, disrupt, corrupt or, usurp adversarial human and automated decisionmaking while protecting U.S. information operations (JP 3-13).

**information warfare**
Information operations conducted during time of crisis or conflict to achieve or promote specific objectives over a specific adversary or adversaries.

**interagency**
U.S. government agencies and departments, including the DOD (JP 3-08).
**intergovernmental organization**
An organization created by a formal agreement (such as, a treaty) between two or more governments. It may be established on a global, regional, or functional basis for wide-ranging or narrowly defined purposes. Formed to protect and promote national interests shared by member states. Examples include the North Atlantic Treaty Organization (JP 3-08).

**irregular warfare**
Violent struggle among state and nonstate actors for legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary's power, influence, and will (JP 1-02).

**joint synergy**
Combining the advantages of the joint team across all domains and applying those advantages against opponents. A more detailed description can be found under the term "synergy."

**mission command**
Mission command is the conduct of military operations through decentralized execution based on mission orders. Successful mission command demands that subordinate leaders at all echelons exercise disciplined initiative, acting aggressively and independently to accomplish the mission within the commander's intent (FM 3-0).

**multinational**
(DOD) Between two or more forces or agencies of two or more nations or coalition partners (JP 1-02).

**nonlethal weapons**
Weapons, devices and munitions that are explicitly designed and primarily employed to incapacitate targeted personnel or materiel immediately, while minimizing fatalities, permanent injury to personnel, and undesired damage to property in the target area or environment. Nonlethal weapons are intended to have reversible effects on personnel or materiel.

**operational exclusion**
Preventing U.S. joint forces from obtaining and using operating bases in the region and, in so doing, delay or preclude American military operations. Operational exclusion applies diplomacy and coercion to keep other regional players on the sidelines. As the perception grows of the inevitability of U.S. operations, exclusion will entail preemptive attack, quite likely with WMD (TRADOC G2).

**permissive environment**
(DOD)  Operational environment in which host nation military and law enforcement agencies have control as well as the intent and capability to assist operations that a unit intends to conduct (JP 3-0).

**remote area operations**
Operations undertaken in insurgent controlled or contested areas to establish islands of popular support for the host nation government and deny support to the insurgents.  They are not designed to establish permanent host nation government control over the area (FM 3-05.202).

**security force assistance**
The unified action to generate, employ, and sustain local, host-nation or regional security forces in support of a legitimate authority.  Security force assistance improves the capability and capacity of host nation or regional security organization's security forces (FM 3-07).

**seize the initiative**
All Army operations aim to seize, retain, and exploit the initiative and achieve decisive results. It emphasizes opportunity created by action through full spectrum operations, whether offensive, defensive, stability, or civil support (FM 3-0).

**shaping operations**
Operations at any echelon that create and preserve conditions for the success of decisive operations are shaping operations (FM 3-0).

**stability operations**
Stability operations encompass various military missions, tasks, and activities conducted outside the U.S. in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief (JP 3-0).

**strategic level of war**
The level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) strategic security objectives and guidance, and develops and uses national resources to achieve these objectives.  See also operational level of war; tactical level of war (JP 1-02).

**strategic preclusion**
Adversarial alliances between nations and even nonstate actors that support access denial preventing U.S. staging privileges.  Action will force the U.S. to seek alternative, less desirable, more dangerous, and time-consuming points of entry.

**superiority**
That degree of dominance in battle of one force over another which permits the conduct of operations by the former and its related land, sea, and air forces at a given time and place without prohibitive interference by the opposing force.

**synergy**
Integrating, synchronizing ,and employing military forces and capabilities, as well as nonmilitary resources, in a manner that results in greater combat power and applies force from different dimensions to shock, disrupt, and defeat opponents.  Integrating and synchronizing the actions of conventional and special operations forces and capabilities in joint operations and in multiple domains (JP 3-0, JP 3-1).

**technical influence**
That combination of electronic and informational technologies such as the internet that can both influence and be used as means to convey influence on people.

**uncertain environment**
(DOD)  Operational environment in which host government forces, whether opposed to or receptive to operations that a unit intends to conduct, do not have effective control of the territory and population in the intended operational area (JP 3.0).

**unconventional warfare**
Consists of activities conducted to enable a resistance movement or insurgency to coerce, disrupt or overthrow an occupying power or government by operating through or with an underground, auxiliary, and guerilla force in a denied area (FM 3-05.202).

**unified action**
(DOD).  The synchronization, coordination, and/or integration of the activities of governmental and nongovernmental entities with military operations to achieve unity of effort.

**unity of command**
One of the nine principles of war:  For every objective, ensure unity of effort under one responsible commander (FM 1-02).

**unity of effort**
(DOD)  Coordination and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization - the product of successful unified action (JP 1-02).

**unrestricted warfare**
Actions taken both military and nonmilitary, to conduct multidimensional, asymmetric attacks on almost every aspect of an adversary's social, economic, and political life.  Employs surprise and deception and uses both civilian technology and military weapons to break the opponent's will. Attacks are integrated and exploit diverse areas of vulnerability; cultural warfare by influencing or controlling cultural viewpoints within the adversary nation; law warfare or political action through transnational or nongovernmental organizations to effect a policy change that would be impossible otherwise; financial warfare by subverting the adversary's banking system and stock market; media warfare by manipulating foreign news media; network warfare by dominating or subverting transnational information systems; psychological warfare by dominating the adversary nation's perception of its capabilities; resource warfare by controlling access to scarce natural resources or manipulating their market value; smuggling warfare by flooding an

adversary's markets with illegal goods; and terrorism to create vastly disproportionate effects on national welfare (TRADOC G2).

**Section III**
**Special Abbreviation and Terms**

**balance**
Careful consideration of as many factors as possible and making choices that achieve the necessary goals and objectives.

**operational adaptability**
The ability to shape conditions and respond effectively to changing threats and situations with appropriate, flexible, and timely actions (new definition).

partner
Persons, groups, or nations working with the U.S. toward the achievement of one or more aims (derivative definition).

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[1] DOD National Defense Strategy, June 2008, 5.

[2] "Army deployment goals" are move a BCT in 4-7 days, 3 BCTs in 10 days, 9 BCTs in 20 days, and 15 BCTs in 30 days.

[3] Defense Budget Recommendation Statement (Arlington, VA). As prepared for delivery by Secretary of Defense Robert M. Gates, Arlington, VA, Monday, April 06, 2009.

http://www.defense.gov/Speeches/Speech.aspx?SpeechID=1341.

[4] For example, historian Williamson Murray argues that the familiar convention that military institutions fail in war because they focus too closely on the last war is incorrect. In the oft-cited case of German military triumph and French defeat in 1940, for example, the Germans benefited from a detailed study of World War I to determine what really happened and identify implications for future war. Meanwhile, the French studied their last war only superficially and used selective observations to justify existing organizations and doctrinal trends. Actually, the French avoided meaningful debate and designed wargames and exercises to ensure results that reinforced flawed assumptions. See Williamson Murray, "May 1940: Contingency and fragility of the German RMA" in *The Dynamics of Military Revolution*, 1300-2050 (New York: Cambridge University Press, 2001), pg. 157-169. As historian Eugenia Kiesling observed, "hard truths were blurred both by optimistic language and by refusal to ask questions whose answers might have proved unsettling." See Eugenia C. Kiesling, Arming Against Hitler: France and the Limits of Military Planning (Lawrence, KS: University Press of Kansas, 1996), pg. 136-143, 175-181. Quotation from pg. 180. Because flawed assumptions escaped exposure, French military doctrine and institutional culture developed in a way that was incongruous with the conditions of war in 1940. When the Germans invaded, the French, who had assumed they would be able to conduct "methodical battle," maintain communications, prevent surprise, and control operations very closely were paralyzed and unable to contend with the actual conditions of war. Robert Doughy, *The Breaking Point: Sedan and the Fall of France*, 1940 (Hamden, CT: Archon Books, 1990), pg. 27-32.

[5] DODD 5100.01, *Functions of the Department of Defense and Its Major Components*.

[6] The National Defense Strategy, the Undersecretary of Defense for Policy speech focused on rebalancing the Force, the *CCJO*, and the Army's Chief of Staff white paper addressing a balanced Army all provide different lists of national security interests, priorities, or objectives. National Defense Strategy, June 2008. Objectives: Defend the homeland; win the long war; promote security; deter conflict; win our Nation's Wars. *Rebalancing the Force: Major Issues for QDR 2010*, Michele Flournoy, Undersecretary of Defense for Policy, Speech to Center for Strategic and International Studies, 29 April 2009. Security challenges: Rise of violent extremist movements; proliferation of WMD; rising powers and the shifting balances of power; failed and failing states; increasing tensions in the global commons. *CCJO*, pg. 7. National security challenges: Win the Nation's wars; deter potential adversaries; develop cooperative security; defend the homeland; respond to civil crisis. *The Army of the 21st Century*, Casey, George W., General, Chief of Staff of the Army, October 2009 (Army Magazine, 59 (10). Objectives: Prevail in protracted counterinsurgency campaigns; engage to help other nations build capacity and assure friends and allies; support civil authorities at home and abroad; deter and defeat hybrid threats and hostile state actors.

[7] U.S. Joint Forces Command's *The Joint Operating Environment: Challenges and Implications for the Future Joint Force*, pg. 10-23. *CCJO*, 2-7. National Intelligence Council's *Global Trends 2025: A Transformed World*, pg. 60-67.

[8] U.S. Joint Forces Command's *The Joint Operating Environment: Challenges and Implications for the Future Joint Force*, describes strategic and operational challenges facing the joint forces. Its companion document, the *CCJO* states, "The future operating environment will be characterized by uncertainty, complexity, rapid change, and persistent conflict." The National Intelligence Council's *Global Trends 2025: A Transformed World,* forecasts a world where terrorism, conflict, and proliferation of weapons, and competition for scarce resources increases.

[9] This concept places future conflicts and environmental factors in the context of U.S. national security interests to identify likely Army missions in future conflict. U.S. Joint Forces Command's *The Joint Operating Environment: Challenges and Implications for the Future Joint Force,* describes strategic and operational challenges facing the joint force. Its companion document, the *CCJO* states, "The future operating environment will be characterized by

uncertainty, complexity, rapid change, and persistent conflict." The National Intelligence Council's *Global Trends 2025: A Transformed World* forecasts a world where terrorism, conflict, and proliferation will remain key concerns even as resource issues move up on the international agenda. All of these documents are consistent with *TRADOC's Operational Environment 2009-2025,* and analyses from the U.S. intelligence community in identifying emerging threats and environmental factors such as state failure, proliferation of WMD, terrorism, natural disasters, regional conflict escalation, and state and nonstate actors hostile to the U.S. and its allies. Each of these challenges contributes to a complex, uncertain operational environment with significant implications for future force operations. See *CCJO*, pg. 2. The National Intelligence Council's *Global Trends 2025: A Transformed World*, TRADOC's *Operational Environment, 2009-2025,* pg. 5.

[10] Matt Matthews' Long War Series Occasional Paper 26—We Were Caught Unprepared: The 2006 Hezbollah-Israeli War, pg 15.

[11] Russell W. Glenn, "All Glory Is Fleeting: Insights from the Second Lebanon War," *National Defense Research Institute*, RAND, February 2008, 18. Matt Matthews' Long War Series Occasional Paper 26—We Were Caught Unprepared: The 2006 Hezbollah-Israeli War, 22.

[12] I.B Holley "Ideas and Weapons" and Martin Van Creveld "Command in War."

[13] National Ground Intelligence Center, "2010: The OE in 2020.

[14] *Unified Quest 2009— Technology Implications*, Objective 5 Interim Analysis Report, TRADOC Analysis Center, December 2008.

[15] *Unified Quest 2009— Technology Implications*, Objective 5 Interim Analysis Report, TRADOC Analysis Center, December 2008.

[16] Ibid.

[17] Ibid.

[18] C. Todd Lopez, *Immersive technology melds Hollywood, warrior training*, Army News Service, 10 March 2009.

[19] *Unified Quest 2009— Technology Implications*, Objective 5 Interim Analysis Report, TRADOC Analysis Center, December 2008.

[20] Ibid.

[21] Ibid.

[22] Michael Howard, "The Use and Abuse of Military History," in Michael Howard, ed., *The Causes of War and Other Essays,* Cambridge, MA: Harvard University Press, 1983, pg.195.

[23] Leaders and units must still understand that these local conditions are connected to larger and often external and transnational dimensions of the problem. As Kimberly Kagan points out, the problems of modern conflict (and particularly counterinsurgency) are "not only localized, but also systemic." For example, Kagan observed that in Iraq that "the enemy had developed a system of allocating resources; command and control; financing; logistics; recruitment; training capabilities; information operations; force projection capacities; and methods for reinforcing priorities—not just in local areas, but hierarchically within the theater." Failure to address the systemic dimension of enemy capabilities could limit friendly and coalition efforts and create opportunities for the enemy organizations. Kimberly Kagan, "III Corps AAR," 5 May 2008, unpublished paper.

[24] JP 3-0, pg. IV-30.

[25] JP 3-06, pg. II-12. A brief survey of American military history—ranging from the Philippine Islands to Latin America to Europe and back to Asia and Latin America—underscores that consolidated security gains were critical prerequisites to political and economic progress. Nadia Schadlow, "Root's Rules: Lessons From America's Colonial Office," *The American Interest*, Winter (January/February 2007), pg. 95.

[26] JP 3-06, pg. II-12.

[27] Combined arms is the synchronized and simultaneous application of the elements of combat power to achieve an effect greater than if each element of combat power was used separately or sequentially. FM 3-0.

[28] Jonathan M. House, Toward Combined Arms Warfare: A Survey of 20th-Century Tactics, Doctrine, and Organization (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1984), pg. 1-6.

[29] FM 3-0, pg. 6-13. See also General George W. Casey Jr., Army Chief of Staff, *The Army of the 21st Century.*

[30] FM 3-0.

[31] According to FM 3-0, disintegrate means to disrupt the enemy's command and control system, degrading the ability to conduct operations while leading to a rapid collapse of enemy's capabilities or will to fight. Dislocate means to employ forces to obtain significant positional advantage, rendering the enemy's dispositions less valuable, perhaps even irrelevant.

[32] Ibid.

[33] Likewise, the Army's capability to conduct sustained land combat complements the U.S. Marine Corps' organic capability to deploy rapidly and conduct forcible entry operations.

[34] Interagency: U.S. government agencies and departments, including the DOD. JP 3-08.

[35] Intergovernmental organization: An organization created by a formal agreement (such as, a treaty) between two or more governments. It may be established on a global, regional, or functional basis for wide-ranging or narrowly defined purposes. Formed to protect and promote national interests shared by member states. Examples include the United Nations, North Atlantic Treaty Organization, and the African Union. JP 3-08.

[36] Multinational is the overarching term that includes both alliances and coalitions. Multinational: Between two or more forces or agencies of two or more nations or coalition partners. Alliance: The relationship that results from a formal agreement (such as, a treaty) between two or more nations for broad, long-term objectives that further the common interests of the members. Coalition: An ad hoc arrangement between two or more nations for common action. JP 1-02.

[37] The most worrying military implication is the general loss of competence by the armed forces, which could make it very difficult to politically reverse the current trend of privatization." Armin Krishnan, *War as Business: Technological Change and Military Service Contracting*. Ashgate Publishing Company, 2008, pg. 156.

[38] "Since deeds send stronger messages than words, it is important that actions both large and small be consistent with the resulting narrative. Few things will destroy credibility more quickly than actions that are incompatible with stated intentions." *CCJO*, pg 28.

[39] Paul B. Stares and Micah Zenko, Enhancing U.S. Preventive Action.