



# The United States Army Functional Concept for Mission Command

2016-2028

13 October 2010



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## Foreword

### *From the Director U.S. Army Capabilities Integration Center*

The U.S. Army continues to answer the Nation's call, as it has since its inception over 235 years ago. As we look to the future, our Army faces a complex and uncertain operational environment that will challenge our Soldiers, leaders, and organizations in many ways. Future enemies are likely to emulate the adaptations of recent opponents while taking advantage of emerging technologies and growing instability to pursue their objectives and avoid what they perceive as U.S. military strengths. The challenges of future armed conflict make it an imperative for our Army to produce leaders and forces that exhibit a high degree of operational adaptability.

TRADOC Pam 525-3-3, *The United States Army Functional Concept for Mission Command 2016-2028*, expands on the ideas presented in TRADOC Pam 525-3-0, the ACC, and TRADOC Pam 525-3-1, the AOC, and introduces mission command as a warfighting function. Confronted by decentralized, networked, and adaptive enemies in complex environments, the Army must redefine its approach to the exercise of authority and direction over its forces. The application of mission command enables commanders to decentralize authority and prevail in three increasingly important dimensions of military operations: the contest of wills, strategic engagement, and the cyber/electromagnetic contest. In support of this approach, TRADOC Pam 525-3-3 serves as a foundation for future force development pertaining to mission command and the mission command warfighting function.

In addition to the warfighting challenges of the future, the Army also faces a number of institutional challenges. The rapid pace of technological change, prolonged acquisition timelines, and growing resource constraints make it necessary for the Army to adopt a more responsive approach to capabilities development. Accordingly, TRADOC is shifting from a 5-year to a 2-year cycle for concept development and revision. As a result, the Army Capabilities Integration Center will update and revise the entire Army Concept Framework every 2 years. This significant change will enable more effective input into the major budget and programming decisions across our Army.

Concepts lead change for the Army and drive the development and integration of future capabilities. They provide a framework for analysis, readiness assessments, prioritization, and feedback. In addition, they serve as a foundation to help the Army maximize effectiveness and minimize risk through both materiel and nonmaterial capability trades. Thus, they enable the Army to identify redundancies and determine which capabilities to pursue, both within and across its warfighting functions, with a better understanding of how such decisions will impact the overall combat effectiveness of the future force.

TRADOC Pam 525-3-3 makes an important contribution to realizing the broad vision outlined in both the ACC and ACC. With an eye toward developing agile and adaptive leaders throughout the force, this concept imparts essential guidance on the application of mission command at all echelons and promotes the development of unique and innovative solutions to military problems by empowering leaders at the lowest practical level. This concept also serves

as a point of departure for wide-ranging discussions, wargames, and experimentation. It represents a significant step forward in an ongoing campaign of learning and directly contributes toward achieving greater institutional adaptation across our Army.



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Military Operations

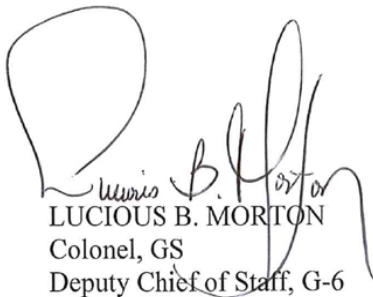
U.S. ARMY FUNCTIONAL CONCEPT FOR MISSION COMMAND 2016-2028

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**History.** This pamphlet is a revision of TRADOC Pam 525-3-3. Mission command replaces the term battle command and is a product of the Army Concept Framework, fully nested with and expanding on the central and supporting ideas of the TRADOC Pam 525-3-0, *Army Capstone Concept*, and TRADOC Pam 525-3-1, *Army Operating Concept*.

**Summary.** TRADOC Pam 525-3-3 describes broad capabilities the Army will require in 2016-2028 to apply the new doctrine of mission command. This concept will lead force development and modernization efforts by establishing a common framework for capitalizing on mission command in the conduct of future joint land operations and accomplishing missions under conditions of uncertainty and complexity.

**Applicability.** This concept is the foundation for future force development and for developing future concepts, capability based assessments, Joint Capabilities Integration and Development System documents, experimentation, and doctrine pertaining to mission command. It supports experimentation described in the Army Capabilities Integration Center (ARCIC) Campaign Plan and functions as the conceptual basis for developing solutions to the future force pertaining to mission command across the domains of doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF). This concept applies to all TRADOC, Department of Army (DA), and Army Reserve component activities that develop DOTMLPF requirements. Since mission command is the Army's integrative function, all other Army functional concepts will be fully nested with TRADOC Pam 525-3-3.

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\*This publication supersedes TRADOC Pamphlet 525-3-3, dated 30 April 2007.

**Proponent and supplementation authority.** The proponent of this pamphlet is the Director, ARCIC. The proponent has the authority to approve exceptions or waivers to this pamphlet that are consistent with controlling law and regulations. Do not supplement this pamphlet without prior approval from Director, ARCIC (ATFC-ED), 33 Ingalls Road, Fort Monroe, VA 23651-1061.

**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, 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>.

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## Summary of Change

TRADOC Pamphlet 525-3-3

U.S. Army Functional Concept for Mission Command, 2016-2028

This revision, dated 13 October 2010-

- o Replaces the functional title of *Battle Command* with *Mission Command* and changes the applicable date to 2016-2028.
  - o Replaces command and control as a warfighting function.
  - o Introduces strategic engagement, contest of wills, and the cyber/electromagnetic contest as three increasingly important dimensions of the operational environment
  - o Introduces a new definition of mission command.
  - o Introduces three solutions to the mission command functional concept: empower the lowest practical echelon; become skilled in the art of design; educate and train the force for the uncertain and complex future OE.
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*War in the future will compel armies to disperse. Dispersed fighting will have two main requirements – skilled and determined junior leaders and self-reliant, physically hard, well-disciplined troops.*

Sir William J. Slim, *Defeat Into Victory*

## **Chapter 1 Introduction**

### **1-1. Purpose**

a. TRADOC Pam 525-3-3, *The Army Functional Concept for Mission Command*, describes how Army forces, as part of unified action,<sup>1</sup> apply mission command during full-spectrum operations,<sup>2</sup> and identifies the capabilities required to apply mission command successfully in the uncertain and complex future operational environment (OE).<sup>3</sup> TRADOC Pam 525-3-3 expands on ideas presented in the ACC and the AOC.

b. TRADOC Pam 525-3-3 poses and answers the following four questions.

(1) How has the concept of mission command evolved given the strategic trends<sup>4</sup> and future OE?

(2) What are the tenets<sup>5</sup> of this expanded concept of mission command that future Army forces must imbue to prevail in future armed conflict?

(3) How do Army forces apply mission command to prevent and deter conflict, prevail in war, and succeed in a wide range of contingencies?<sup>6</sup>

(4) What capabilities must the Army develop to enable the successful application of mission command in full-spectrum operations?

c. TRADOC Pam 525-3-3 consists of four chapters. Chapter 1 establishes its purpose, linkage to the ACC and AOC, and assumptions. [Chapter 2](#) presents the operational context, military problem, and solution. [Chapter 3](#) explains how mission command contributes to the seven core operational actions which, per the ACC, the Army must be able to perform to meet future security challenges.<sup>7</sup> [Chapter 4](#) summarizes the pamphlet's major ideas. The required capabilities the Army must develop to enable successful application of mission command in the emerging OE are listed at [appendix B](#).

### **1-2. Background**

a. Informed by an assessment of the future OE and almost a decade of combat experience, the ACC adopted *operational adaptability* as the central tenet for the future force.<sup>8</sup> Among the ACC's core ideas is that "the uncertainty and complexity of future operations will demand forces

that can operate in a decentralized manner consistent with the concept of mission command.”<sup>9</sup> The renewed emphasis on mission command corrects the 1990s defense transformation view that emerging technologies would lift the fog of war<sup>10</sup> and allow unprecedented awareness of every aspect of future operations. This view argued that operational images and graphics displayed on computer screens, in combination with processes such as system-of-systems analysis and operational net assessment,<sup>11</sup> would permit an all-knowing headquarters to develop detailed plans, make near-perfect decisions, closely control organizations, and direct operations toward mission accomplishment.<sup>12</sup>

b. In fact, however, operations over the past decade have reminded the Army that armed conflict is first a human undertaking<sup>13</sup> and what matters most are the opaque intentions, dynamic relationships, and covert actions of human groups, mostly invisible to technical intelligence. Additionally, the same technology that provides greater awareness to higher headquarters also enables subordinates to be better informed and to make better and timelier decisions. Thus, the U.S. Army is more committed than ever to the concept of mission command.

### **1-3. Assumptions**

a. The assumptions from the ACC<sup>14</sup> and AOC<sup>15</sup> apply equally to this pamphlet, and similarly, the ideas in this pamphlet are equally liable to those hypotheses.

b. The following additional assumptions apply:

(1) The Army will be able to assess the leader competencies<sup>16</sup> that enable an agile and adaptive force.<sup>17</sup>

(2) The Army will be able to recruit, develop, track, and retain sufficient numbers of leaders with such competencies.<sup>18</sup>

(3) The future force will inculcate a climate of mutual trust and prudent risk-taking.<sup>19</sup>

### **1-4. Linkage to the ACC**

The ACC provides the Army’s vision of future armed conflict and describes the broad capabilities the Army will require in the 2016-2028 timeframe. It establishes *operational adaptability* as its central tenet and asserts success in future armed conflict depends on the ability of Army leaders and forces to understand the situation in breadth, depth, and context; then develop the situation through action in close contact with enemies and civil populations. The ACC outlines six supporting ideas<sup>20</sup> that contribute to achieving operational adaptability and seven core operational actions<sup>21</sup> the Army must be able to perform to meet future security challenges. The ACC emphasizes *mission command* as one of six Army functional concepts (AFCs). (The other five are: *intelligence, movement and maneuver, fires, protection, and sustainment*.)

### 1-5. Linkage to the AOC

a. Building on the ACC's central tenet of *operational adaptability*, the AOC describes how future Army forces operate as part of unified action to deter conflict, prevail in war, and succeed in a wide range of contingencies. It establishes combined arms maneuver<sup>22</sup> and wide area security<sup>23</sup> as its central idea. Combined arms maneuver is the application of the elements of combat power in a complementary and reinforcing manner to achieve physical, temporal, or psychological advantages over the enemy, preserve freedom of action, and exploit success. Wide area security is the application of the elements of combat power in coordination with other military and civilian capabilities to deny the enemy positions of advantage; protect forces, populations, infrastructure, and activities; and consolidate tactical and operational gains to set conditions for achieving strategic and policy goals.<sup>24</sup>

b. The AOC outlines seven supporting ideas<sup>25</sup> and eight operational and tactical level actions<sup>26</sup> the Army must be able to perform to meet future security challenges. Central to its solution, the AOC stipulates, "Army forces must act and respond faster than the enemy to seize, retain, and exploit the initiative under conditions of uncertainty and complexity. To achieve speed of action, identify and exploit opportunities, and protect against unanticipated dangers, Army forces employ an expanded concept of combined arms and operate decentralized consistent with the tenets of mission command."<sup>27</sup>

### 1-6. Linkage to the human dimension

TRADOC Pam 525-3-7, *The U.S. Army Concept for the Human Dimension in Full-Spectrum Operations 2015-2024* emphasizes optimization of the cognitive, physical, and social components of every Soldier with the objective to improve the acquisition and selection of personnel; maximize leader and organizational development; establish the ability to rapidly adjust, deliver, and provide accessibility of training and education ultimately balancing Soldier knowledge, skills, and abilities with full-spectrum operations mission requirements.

### 1-7. References

Required and related publications are in [appendix A](#).

### 1-8. Explanations of abbreviations and terms

Abbreviations and special terms used in this pamphlet are explained in the [glossary](#).

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*As battle becomes more complex and unpredictable, responsibilities must be more and more decentralized. Thus mission-type orders often will be used at all echelons of command and probably will be the rule at the division and higher levels. This will require all commanders to exercise initiative, resourcefulness, and imagination—operating with relative freedom of action.*

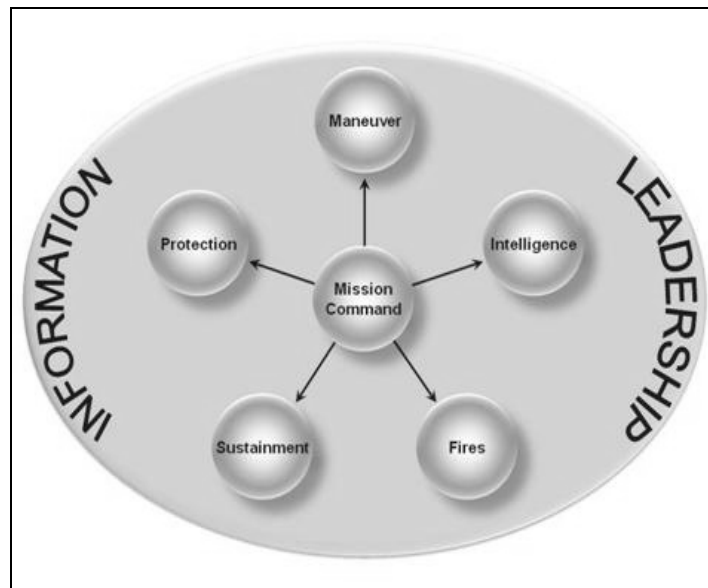
General Bruce C. Clarke, Commander in Chief, U.S. Army Europe  
*Military Review*, September 1951

**Chapter 2**  
**Operational Context, Military Problem, Central Idea, and Solution**

**2-1. Operational context**

a. Evolution of mission command.

(1) Mission command is an evolved concept. It has been the Army’s preferred style for exercising command since the 1980s, and in 2008, was integrated into the Army’s concept of full-spectrum operations.<sup>28</sup> The concept of mission command and its definition have evolved to adapt to anticipated operational demands, which are detailed in the ACC and AOC and outlined later in this pamphlet as catalysts for change. The evolved concept of mission command encompasses both the Army’s philosophy of command aimed at adapting and achieving advantage in complex and uncertain OEs, and the integrating function that combines the capabilities of all warfighting functions to accomplish the mission. Commanders use leadership and information to apply combat power through the warfighting functions (see figure 2-1).



**Figure 2-1. The six warfighting functions**

(2) The definition of mission command has evolved accordingly to recognize both roles: Mission command is the exercise of authority and direction by commanders, supported by their staffs, using the art of command and the science of control to integrate warfighting functions in the conduct of full-spectrum operations. Mission command uses mission orders to ensure disciplined initiative within the commander's intent, enabling agile and adaptive commanders, leaders, and organizations. What follows is a short background on the concept of mission command and the primary catalysts for its evolution.

b. Background.

(1) Mission command in the U.S. Army traces its roots back to the German concept of *Auftragstaktik*, which translates roughly to mission-type tactics, or as General Clarke referred to them in the above caption, mission-type orders. *Auftragstaktik* held each German commissioned and noncommissioned officer duty bound to do whatever the situation required, as he personally saw it. The broader purpose to be accomplished was the confining mechanism in this system of command. Omission and inactivity were disdained. Even disobedience of orders was acceptable if the broader purpose called for it.<sup>29</sup>

(2) The U.S. Army adopted "mission orders"<sup>30</sup> and "mission command"<sup>31</sup> into its doctrine in the early 1980s to provide subordinates the freedom to find and employ unique and innovative solutions to mission problems. The U.S. Marine Corps (USMC) adopted the concepts into their doctrine shortly thereafter, "establishing the duty [for the subordinate] to take whatever steps he deems necessary based on the situation...uninhibited by restrictions from above."<sup>32</sup> Both services validated these concepts in the crucible of battle. Mission command conforms to the nature of war, where the prospects and complexity of human conflict greatly expand.<sup>33</sup> It accounts for the vagaries of human nature and promotes the cohesion that bonds individuals and groups in times of conflict and fear.<sup>34</sup> It is broad enough to apply to all levels of war yet specific enough to be practicable at each level and command echelon.<sup>35</sup> It capitalizes on the cultural strengths of the American people.<sup>36</sup> Finally, mission command complements the Army's warfighting philosophies.<sup>37</sup>

(3) Neither concepts nor doctrine, however, are immutable. They must grasp changes in strategic trends and the OE to discern their military implications and "drive Army services' adaptations to the environments within which it will operate."<sup>38</sup> It is with this goal in mind that the Army and USMC have collaborated to adapt the concept of mission command to meet the anticipated operational demands of the future OE. The USMC has already integrated its evolved concept of mission command into its service ethos.<sup>39</sup>

c. Catalysts for change. The concept of mission command evolved as a result of five strategic and operational factors: the broad range of potential missions, increasingly uncertain and complex OE, ill-structured situations, replacement of the command and control warfighting function with mission command, and the establishment of the Mission Command Center of Excellence (CoE). Each is briefly discussed below.

(1) Broad range of potential missions. The U.S. Army is the Nation's principal military force organized, trained, and equipped for prompt and sustained operations on land. Army

forces provide unique, asymmetric abilities across the range of military operations to change existing conditions on land and set conditions for stability.<sup>40</sup> To fulfill its purpose, the Army must prepare for a broad range of missions and remain ready to conduct full-spectrum operations to contribute to the attainment of national policy aims.<sup>41</sup> Army forces must be prepared to conduct operations to help protect or advance U.S. interests in complex operational environments and against adversaries capable of employing a broad range of capabilities.<sup>42</sup> Joint doctrine defines an *adversary* as, “a party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged,” whereas Army doctrine defines *enemy* as “a party identified as hostile against which the use of force is authorized” and *threats* as “nation-states, organizations, people, groups, conditions, or natural phenomena able to damage or destroy life, vital resources, or institutions.”

(2) Uncertain and complex<sup>43</sup> OE.

(a) Building on TRADOC’s “*Operational Environment 2009-2025*,” the ACC and AOC project an interactive future OE, marked by powerful global trends, uncertainty, complexity, and social change, and a wide range of clever, adaptive, and networked enemies and adversaries.<sup>44</sup> Conditions from one area of operations to another vary radically and change incessantly in such environments. Future Army forces must be prepared to adapt their execution – and how they originally framed the problem – more frequently and more quickly than ever before. Thus, the emerging OE reduces decisionmaking time<sup>45</sup> at the same time it increases ambiguity and complexity. Furthermore, the nature of the OE, combined with the broad range of threats, makes it likely future Army forces will have to operate under degraded conditions and networks.<sup>46</sup> These conditions are not conducive to the centralization of decisionmaking authority and the capabilities to influence the environment.<sup>47</sup>

(b) At the same time, commanders face elusive adversaries in an increasingly uncertain and complex OE, the criteria for successfully accomplishing missions also have expanded. Imposing will on a hostile, thinking, and adaptive enemy remains a core competency of future Army forces, but as operations over recent decades have shown, merely defeating the enemy will not achieve mission success in the foreseeable future. Maintaining public support at home, winning support abroad, and establishing an environment that sets the conditions for a lasting peace<sup>48</sup> are equal imperatives in the transformed OE.<sup>49</sup> Further, winning the cyber/electromagnetic contest is becoming increasingly important in a globally-connected and information-saturated OE.<sup>50</sup> Thus, successful operations require Army leaders and forces to prevail simultaneously across the following three interconnected dimensions of military operations.”<sup>51</sup>

(c) The aim of the first dimension of any military operation—*the contest of wills*—is to prevail against determined enemies, warring factions, criminal groups, adversaries, and other threats. The purpose of military action is never purely destructive. In every case, it is to influence the behavior of various groups of human beings toward some greater purpose. Since humans are products of their genetic inheritance, education, and experience, they perceive the world selectively, making judgments of fact and of value. They continually negotiate their perceptions and interpretations of the world with others. Thus, key individuals in any mission are as influenced from inside this system of humans as much as they are by outside intervention. Not surprisingly, therefore, they do not always behave in a logical and rational way.

Commanders bring to bear all the combat power<sup>52</sup> at their disposal, both moral and physical, to influence the will, and hence, the behavior of their enemy. Influencing opponents' will be more difficult in the future OE. Prevailing in the contest of wills will require acute understanding of human behavior and place increasing demands on leaders to make decisions and act without the benefit of complete information.

(d) The aim of the second dimension—*strategic engagement*—is to sustain public support at home, gain allies abroad, and generate support for the mission in the area of operation. This dimension is inexorably linked to the first and just as challenging. The success of military operations requires the support of diverse publics, actors, and third-party validators of the mission and the way it is conducted. The same globally-connected and information-saturated OE that makes it such a challenge to prevail in the contest of wills, also makes it difficult to gain and maintain the support of these mission-critical individuals and groups. As the 2010 joint operational environment points out, U.S. enemies are well-steeped in the strategy to fight for public opinion. Failure to gain and maintain the support of mission-critical individuals and groups places the mission at risk. Just as in the contest of wills, actions also speak loudest here and must be absolutely congruent with words and images. However, the Army cannot propagandize or lie to these individuals and publics, who will react negatively to any effort at doing so they perceive. Telling it straight, simply, quickly, and in a culturally-relevant manner works best in the long-term, no matter how unpleasant it may be in the short-term.

(e) The first two dimensions, *contest of wills* and *strategic engagement*, are psychological in nature because humans arrive at conclusions by way of the cognitive process and choose to act on those conclusions, or not, as a result of their affective process.<sup>53</sup> However, the aim, cause-and-effect relationship, and strategic considerations differ dramatically between the two dimensions. Unlike the “targets” of the first dimension, individuals and groups in the second dimension are important authorities whose support is paramount to the mission. Rather than considering them passive “audiences,” commanders must regard them as influential parties to be engaged in a continuing dialogue to build long-lasting relationships based on mutual trust and respect.<sup>54</sup>

(f) The aim of the third dimension—*cyber/electromagnetic contest*—is to gain advantage, maintain that advantage, and place adversaries at a disadvantage in the increasingly contested and congested cyberspace domain and the electromagnetic spectrum (EMS). Rapidly evolving information technologies are increasing the speed, capacity, agility, efficiency, and usefulness of modern networks. The proliferation of cyber, EMS, and space technologies is changing the way humans interact with each other and the environment in all facets of human endeavor, to include military operations. The Army uses information technology and information systems to communicate, synchronize forces, coordinate fires, gather and distribute intelligence, and conduct other military activities.

(g) The fundamental objective of the cyber/electromagnetic contest is to establish a network that enables effective mission command, then operate, and defend it. In conjunction with this primary effort, commanders seek to develop cyber/electromagnetic situational awareness, which enables all aspects of the cyber/electromagnetic contest. Operations are directed to attack and exploit adversary systems, and to protect friendly individuals and platforms. Support activities

underpin these efforts to gain and maintain advantages. Enemies, adversaries, warring factions, and criminal cartels have access to many of the same technologies and the funds and entrepreneurial spirit to harness them for their own use. In this technological sea-change, a significant advantage will go to the side that prevails in this third dimension of military operations. Conversely, the side that fails in this contest or cannot operate effectively when their systems are degraded or disrupted cedes a significant advantage to the adversary. Consequently, it is imperative commanders and staffs discern the threats and their capabilities and know when their networks are under attack or have been compromised.<sup>55</sup>

(3) Ill-structured mission situations. The broad range of missions the Army must prepare for, the uncertainty and complexity of the future OE, which imposes the imperative to prevail in three interconnected dimensions in any military operation, combine to present commanders and staffs with daunting situations. Social scientists refer to these as “wicked problems”<sup>56</sup> and Army doctrine recognizes them as ill-structured problems<sup>57</sup> for which it introduces the methodology of design.<sup>58</sup> This concept refers to these as unique mission situations, whose operational variables must be analyzed and understood to frame<sup>59</sup> the problem and develop an approach to solving it.

(a) Well- and medium- structured situations may be complicated, but can be understood through deductive reasoning and analysis. Military professionals use fast inductive circuits in their brains to quickly recognize and categorize these situations. Intuition and rapid synthesis leads to framing the problem and providing design guidance to planners; deductive thinking and analysis leads to solutions.<sup>60</sup> Success depends on perfecting technique and adjusting execution. The debate in well- and medium-structured situations is not about *what* the problem is, but *how* to solve it best. Unfortunately, military professionals have faced few of these type situations in recent years and the future OE suggests these will continue to be the exception (see figure 2-2).

(b) Unlike well- and medium-structured situations, ill-structured situations deal with the more problematic complexity of nonlinear social behaviors over time, subtle relationships between cause and effect, and unpredictable interactions one encounters.<sup>61</sup> Less is known about adversaries and how they might fight. Interactions with the press and local publics are dynamic and more crucial to success. Winning and keeping coalition partners and gaining the support for the mission in the area of operations introduce countless variables, tensions, and actors. Many of these variables can only be discovered by executing a provisional solution -- fighting for information and quickly adapting according to what is learned. Such situations take classic inductive reasoning, generalizing from particulars, and a shared education is as important as shared experience among professionals.<sup>62</sup> Though senior commanders may want to hand well-structured problems to lower commanders, mission success in uncertain and complex environments will rest more and more on the ability of lower echelons to frame their own unique mission problem and act decisively to seize and retain the initiative.<sup>63</sup> Commanders and their staffs rely on the learning that is generated by lower echelons as they grapple with the problem while subordinate commanders need higher headquarters’ broad mission purpose and operational-strategic context to inform their unique problem frame and provisional solution.

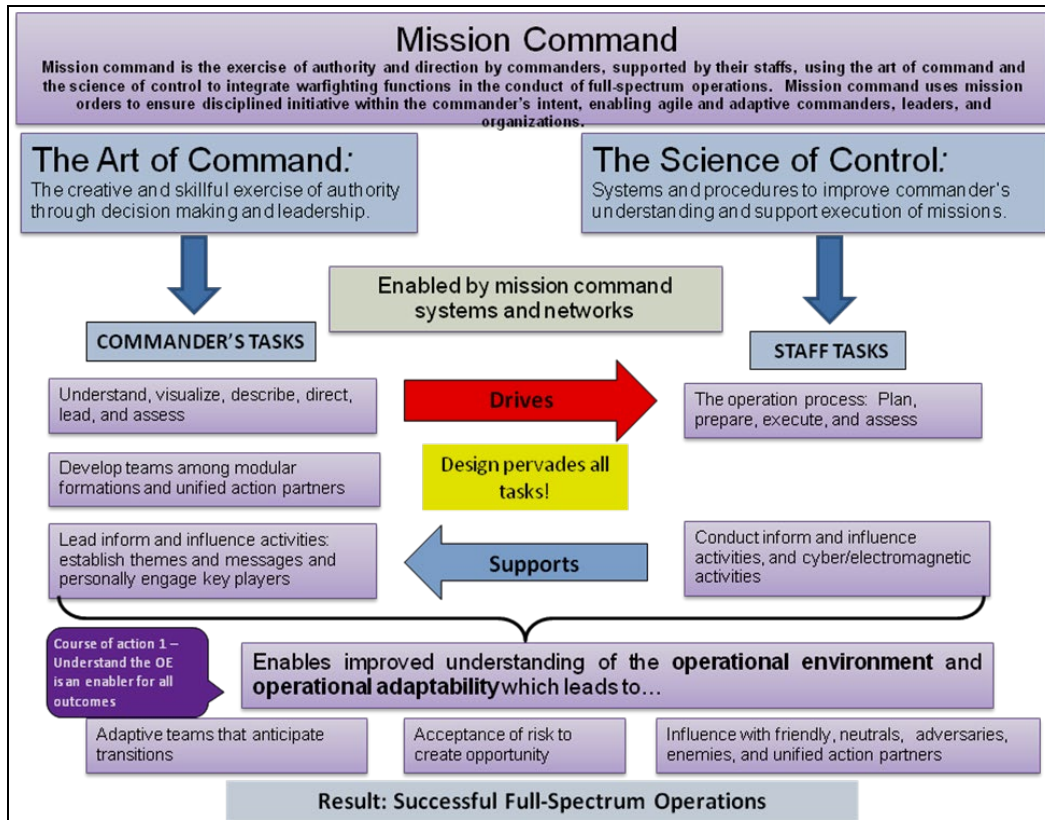


	← Technical	Familiar Adversarial	Novel/Complex	→
Least Complex Mission	Well-Structured	Medium-Structured	Ill-Structured	Most Complex Mission
Mission Description	Deliberate action upon inert matter based on the physical sciences. (such as destroy a bunker, bridge, air defense network)	Unambiguous/unitary objectives, hierarchical adversaries and allies, within clear contextual boundaries. (such as seize a defended position, defeat a particular armed force)	Ambiguous and multiple objectives, parallel and sequential logical lines of operations, fragile informal alliances, multiple shadowy and non-hierarchical adversaries, and unclear contextual boundaries. (such as “fix Ramadi, but don’t do a Fallujah.”)	
Predominant Logic and Sources of Complexity	Reliable linear logic produces an effect. May be complicated, but not complex unless a reactive and mobile target.	Familiarity, experience and doctrine provide the inherent logic. Complexity derives from dynamic interactions with the adversary.	A priori/stand-off understanding of logic impossible. Experience, doctrine are uncertain guides. Complexity derives from dynamic interactions with multiple, novel actors interacting along complex hidden casual chains.	
Success Requires	Learning to perfect technique.	Learning to adjust execution.	Learning and iterative adaptation to inform/refine problem frame.	

**Figure 2-2. Success in highly complex missions<sup>64</sup>**

(4) Mission command replaces command and control<sup>65</sup> as a warfighting function.<sup>66</sup> Recognizing the need to adapt to the emerging OE, the Army is replacing the command and control warfighting function with mission command. Mission command as a warfighting function better describes how future Army forces must operate in an environment of complexity, uncertainty, and increased competitiveness, where subordinates require the freedom of action to develop the situation and where bottom up input is as important as top down guidance.<sup>67</sup> The mission command warfighting function moves beyond the existing system focus to strike a balance between the art of command and the science of command. The commander is the central figure in mission command. Through mission command, supported by staffs, integrate the capabilities of all warfighting functions via the operations process. Mission command as a warfighting function reinforces the importance of leadership and the leader’s assessment of the operational variables<sup>68</sup> in full-spectrum operations.

(a) The mission command warfighting function is the related tasks and systems that support commanders in exercising authority and direction. The mission command warfighting function blends the art of command with the science of control while re-emphasizing the importance of humans over technology. Through mission command, commanders integrate all warfighting functions to accomplish the mission. The mission command warfighting function includes the following commander and staff tasks (see figure 2-3).



**Figure 2-3. Mission command**

(b) Commander tasks. Execute the role of the commander by understanding the problem, visualizing the end state, and nature and design of the operation, describing the time, space, resources, and purpose action, direct the warfighting functions, and constantly assess the process. Develop teams among modular formations, and joint, interagency, intergovernmental, and multinational partners. The commander must build teams with assigned and supporting organizations as well as with joint interagency, intergovernmental, and multinational partners. The commander must lead inform and influence activities by establishing themes and messages and personally engaging key players. Effective full-spectrum operations require commanders to establish and synchronize information themes and messages and integrate with actions to achieve a desired end state.

(c) Staff tasks. Execute the operations process of planning, preparing, executing, and assessing. This task accomplishes the fundamental purpose of the mission command warfighting function: integrate all warfighting functions to accomplish the mission. Staffs also conduct inform and influence activities. Inform and influence activities are activities that integrate synchronized themes and messages with actions to support full-spectrum operations. These activities include public affairs, military deception, military information support operations, and Soldier and leader engagement. Staffs conduct cyber/electromagnetic activities. Cyber/electromagnetic activities focus on seizing, retaining, and exploiting advantages in cyberspace and the electromagnetic spectrum. These activities include cyberspace operations, electronic warfare, and electromagnetic spectrum operations.

(d) The mission command warfighting function does not change the commander's role or the steps of the operations process; it changes how the commander conducts the processes of planning, preparation, execution, and continuous assessment. Mission command replaces command and control's hierarchical organizational model with a more collaborative process between commanders and their staffs at each echelon, enabling improved understanding of the OE and operational adaptability, which leads to adaptive teams that anticipate transitions, the acceptance of risk to create opportunities, and the integration of information tasks to influence friendly forces, neutrals, adversaries, enemies, and joint, interagency, intergovernmental, and multinational partners.

(e) Mission command networks and systems is the coordinated application of personnel, networks, procedures, equipment, facilities, knowledge management, and information management systems essential for the commander to conduct operations. An effective mission command system enables commanders and is essential for commanders to conduct operations that accomplish the mission decisively.

(5) Mission Command CoE.<sup>69</sup> TRADOC established Mission Command CoE to drive force modernization for mission command and supporting capabilities for the Army. Its enduring theme is to integrate mission command DOTMLPF across all echelons from the Army service component command to the platoon. Working collaboratively with other CoEs and stakeholders, the Mission Command CoE leads mission command modernization efforts for doctrine, training, leader development, personnel, and facilities, while also integrating organization and materiel efforts to produce integrated, resource-informed, and outcomes-based options to Army senior leadership. Working closely with the other CoEs and stakeholders, the Mission Command CoE identifies the requirements for mission command at echelons above brigade, and partners closely with all other CoEs and stakeholder organizations to integrate mission command capabilities at brigade level and below. It also integrates the efforts of the Intelligence and Signal CoEs. Finally, the Mission Command CoE integrates critical elements of the mission command warfighting function by exercising oversight over a community of mission command-related proponentencies, including airspace command and control, command and control, cyberspace, electronic warfare, information operations, knowledge management, military information support operations, public affairs, and others.<sup>70</sup>

## 2-2. Military Problem

How does the Army develop, prepare, organize, and equip leaders and units that are able to capitalize on the tenets of mission command to achieve operational adaptability, agility, and versatility and more effectively accomplish the mission in conditions of uncertainty and complexity? (See figure 2-4.)

The unclear nature of the future operational environment disallows any degree of certainty in preparing for future conflict—but investment in developing a culture and command climate of mission command will better enable appropriate adaptation to any operational challenge.

**Figure 2-4. The nature of the future OE**

### **2-3. Central idea**

Mission command is the exercise of authority and direction by commanders, supported by their staffs, that fosters mutual trust, encourages initiative, and empowers subordinate leaders to develop the situation, adapt, and act decisively within the commander's intent.

### **2-4. Military solution**

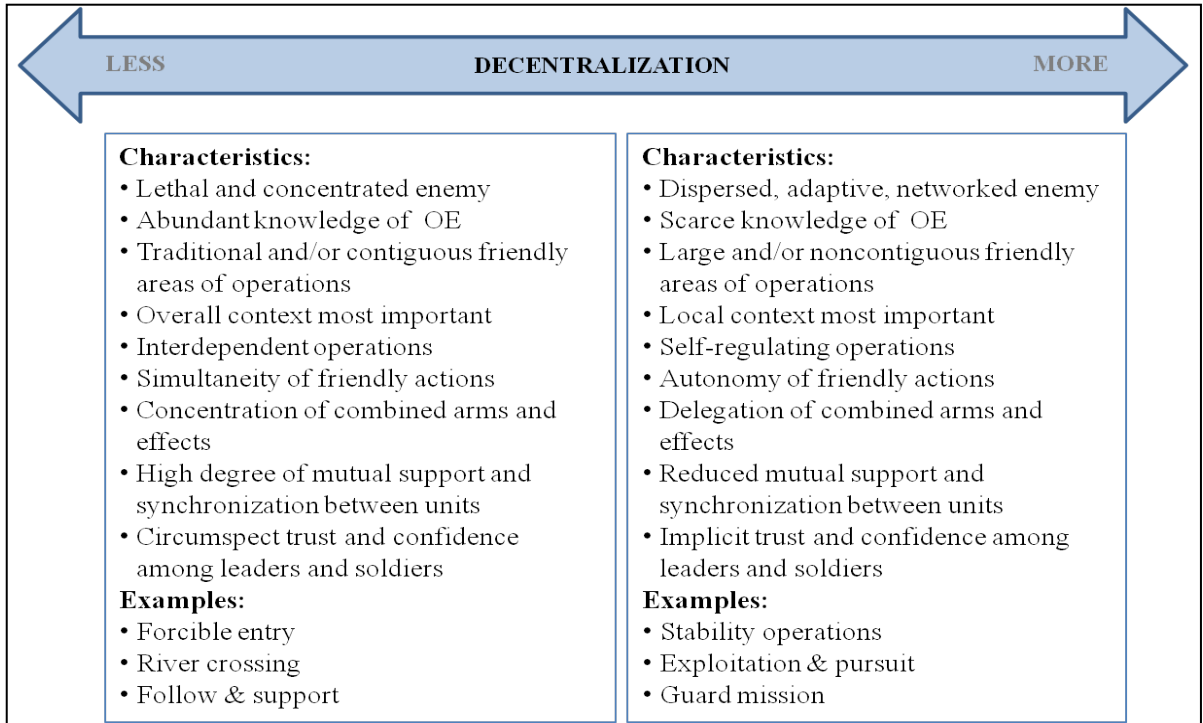
a. Mission command evolved in tandem with the ACC central idea of *operational adaptability* and the AOC central ideas of *combined arms maneuver and wide area security*. Combined arms maneuver seeks to shatter the enemy's cohesion through a variety of rapid, focused, and unexpected actions that overwhelm the enemy's ability to cope. This is symmetrical to the USMC's maneuver warfare philosophy.<sup>71</sup> Mission command enables both and contributes to the disintegration of the enemy's coherence and will.

b. A key element of the AOC military solution is co-creation of context. Co-creation of context is a continuous process in which commanders direct intelligence priorities to drive operations, and the intelligence that these operations produce causes commanders to refine operations based (on) their improved understanding of the situation.<sup>72</sup> Within mission command, co-creation of context is the dialogue between commanders and their staffs which help them develop a common understanding of their area of operations by simultaneously sharing information laterally and vertically between different echelons.

c. Mission command envisions commanders enabling agile and adaptive leaders and organizations to execute dutiful initiative<sup>73</sup> within the commander's intent as part of unified action in a complex and ambiguous environment. Mission command offers no panacea or rigid formula for success. Instead, it is integral to successful full-spectrum operations,<sup>74</sup> challenging leaders to cultivate a bias for action in subordinates, develop mutual trust and understanding, and exercise moral nerve and restraint.

d. Commanders face four key challenges when conducting mission command: Understanding the environment; executing the role of the commander by driving the operations process through visualizing, describing, directing, leading, and assessing the process; partnering and building teams; and leading inform and influence activities by establishing themes and messages and personally engaging key players. Commander tasks and staff tasks laid out within the mission command warfighting function specifically address these challenges.

e. The evolved concept of mission command recognizes that each mission situation is unique. Commanders determine the extent to which they centralize or decentralize authority and combined arms capabilities based upon their understanding of the situation, their concept for accomplishing the mission, the mutual trust and confidence shared with the subordinate, the need to subsequently reaggregate the capabilities, and other key variables. The level of centralization or decentralization is applied along a continuum. The commander's decision is an aspect of operational and tactical art,<sup>75</sup> requiring judgment, experience, and intuition applied to the situation. (See figure 2-5.)



**Figure 2-5. Mission command continuum**

f. Proper application of mission command requires determining the appropriate level of centralization or decentralization based on the type of mission and level of synchronization necessary for successful operations. Forcible entry operations, for example, necessitate massing effects and greater synchronization of activities by subordinate units, which in turn calls for retaining decisionmaking authority and combined arms capabilities with the higher authority. More latitude and greater freedom of action are not necessarily better. On the other hand, when fighting a highly dispersed, adaptive, and networked enemy, small unit leaders must use initiative which promotes greater overall agility of their forces to operate effectively despite being widely separated.

g. Commanders must understand their operational environment before determining the level they centralize or decentralize operations. Understanding the international, national, and host nation legal, political, and cultural authorities and caveats, formal and informal, will assist in institutionalizing the cultural bias for a risk-acceptance mindset and unconditional trust and confidence vertically and horizontally across the force. Often a misunderstanding of such authorities and caveats at the tactical and operational levels can have strategic implications that can undermine a risk-acceptance mindset, trust, and confidence. A clear understanding of these authorities will assist in determining the approval authorities at what echelons as indicated by mission, enemy, terrain and weather, troops and support available, time available, civil considerations (METT-TC) to empower commanders at the point of decision.

h. The evolved concept of mission command embraces seven tenets.

(1) Mutual trust, understanding, and dutiful initiative. These are keystones of mission command, energizing subordinates to accomplish assigned missions (tasks) in accord with the commander's intent (purpose). Mission command thrives where mutual trust, understanding, and dutiful initiative outweigh the sum of all fears.<sup>76</sup>

(2) Appropriately delegated decisionmaking. Based on the commander's intent and concept for accomplishing his mission, when appropriate the decentralization of decisionmaking authority is a conduit for greater opportunity to seize, maintain, and exploit advantage. It speeds decision and agility of action, perhaps at the risk of an inappropriate decision due to inexperience of the lack of the big picture.<sup>77</sup> The commander must gauge this risk and determine if it is outweighed by the advantage of quicker decisions by subordinates. The increased number of decisionmakers can overwhelm the enemy's coherence and disrupt cohesion. Multiple decisionmakers can also apply greater influence on mission-relevant publics and better protect the local population.<sup>78</sup>

(3) Decentralized combined arms capabilities. Similarly, consistent with the commander's intent and concept for accomplishing his mission, small units with the resources, combined arms capabilities, access to relevant intelligence and combat information, can achieve more favorable outcomes in uncertain and complex environments.<sup>79</sup>

(4) Adaptive, bold, audacious, and imaginative leaders. These characteristics provide leaders with the ability to discern weak signals of impending change from a vast array of events and data,<sup>80</sup> and the entrepreneurial spirit and moral courage to adapt to the local situation and gain advantage by degrading enemy cohesion through surprise, speed, and violence too abundant for him to cope with.<sup>81</sup>

(5) Well-trained, cohesive units. Well-trained, cohesive units are the quintessential component for successful military operations of any kind, but particularly crucial in conditions of uncertainty and complexity and when operating decentralized or dispersed.<sup>82</sup> Mission command and operating decentralized make "battle drills"<sup>83</sup> more important than ever to successful armed conflict and preservation of life. Mission command and operating decentralized also demand that Soldiers and units are skilled in applying the tools, processes, network, systems, and external capabilities.

(6) Nerve and restraint. These attributes enable senior leaders to value calculated risk as a means to generate opportunity and to cultivate a climate which unleashes the innovative potential of subordinates to strive for advantage.<sup>84</sup>

(7) Calculated risk. Risk is a component of resolve and wisdom to recognize that friction and chance can radically influence events and calculated risk can generate and exploit opportunity.

## **2-5. Supporting ideas**

- a. Empower the lowest practical echelon.

(1) Consistent with the commander's intent and concept for accomplishing his mission, empowering subordinates enables operational adaptability in uncertain, complex, and changing environments (see figure 2-6). Given the access, competency, and authority to employ the full array of combined arms capabilities, including those from unified action partners, junior leaders can make timely decisions and exploit fleeting opportunities. Undoubtedly, mission command will manifest itself somewhat differently at each level of war and at each command echelon.<sup>85</sup> From the actions and feedback of multiple small unit tactical engagements, the commander begins to decompose the overall problem set into more discrete and soluble components.

Happy the army where ill-timed boldness occurs frequently; it is a luxuriant weed, but indicates the richness of the soil.

Carl Von Clausewitz, *On War*.

### Figure 2-6. Empowerment and initiative

(2) As individual subordinate commanders gain insights into the character of the people, their circumstances, and the equities and issues that influence them, each subordinate commander becomes a focused and "directed telescope" for a slender section of the operational arena. Like a giant jigsaw puzzle, their combined insights form recognizable and exploitable patterns, even as their proximity to the action lends subtly and color to their individual piece.

(3) An adept commander and staff are attentive to patterns that enable them to discern enemy intent and emergent consequences with the least amount of information, using the known pieces of the operational puzzle to sense those that are missing. The relationships these small forces establish with the population and the enemy produce vital information, clarify intentions, and create time-sensitive opportunities that cannot be replicated by technical means.

(4) Ongoing operations continue to illustrate how the empowerment of lower echelons increases overall force agility and effectiveness as well as initiative. Brigades and battalions have been producing their own versions of campaign plans because it is the best way to articulate a broad set of ideas about how to solve ill-structured problems in complex OEs over time. These plans serve the vital purpose of outlining what the unit seeks to accomplish on their 12-15 month combat tours.<sup>86</sup> Senior observers of numerous joint and combined operations reported units down to battalion and company level were engaged in lengthy operations with a great deal of independence; higher commanders were "supporting" lower echelons through top-down guidance while directing bottom-up refinement by those leaders based on their closer-to-the-action situational understanding. These experts witnessed commanders placing more emphasis on the purpose of the operation rather than the task, and they remarked on the value that experienced and seasoned enlisted leaders bring to dispersed and distributed operations.<sup>87</sup>

(5) These same senior observers concluded implicit trust and confidence between senior and junior leaders up, down, and horizontally within the broader force were an imperative if forces are to be able to operate decentralized. They pointed to a number of tensions when operating decentralized or dispersed, to include possible strategic consequences from tactical action,

inconsistent preparedness of junior leaders to use the full array of combined arms capabilities, different situational understanding of operating environments, and lack of trust on the availability of supporting joint capabilities. Yet, the assert tensions such as these only underscore the need for commanders' continued emphasis on building and maintaining trust, developing subordinate leaders, and transparently sharing of information to achieve common understanding of the environment.

(6) While these experts note senior leaders are more prone to empower subordinate commanders than ever before in combat, these same senior leaders tended to micromanage subordinates in garrison. Senior leaders emphasized that mutual trust and confidence originates and is reinforced in garrison through day-to-day activities and procedures (figure 2-7). This evolved concept of mission command demands subordinates are entrusted with decisionmaking authority and placed in demanding and complex situations in garrison to forge the trust relationship and develop their competency for armed conflict. This is a profound cultural issue that calls upon leaders at every echelon to exercise nerve, restraint, and calculated risk.

We need to emphasize the practice of this decentralization and empowerment in peacetime and garrison as well. The tendency in garrison is toward greater centralization and control, and less on trust and empowerment. However, this does not prepare senior and junior leaders for the necessary decentralization in combat. Empowerment and initiative must be developed in peace and exploited in war.

General (Retired) Gary Luck and Colonel (Retired) Mike Findlay  
*Joint Distributed Operations: Insights*

**Figure 2-7. Consistent application of decentralization**

(7) The more senior the commander, however, the greater the conundrum in operating decentralized. This is because political constraints are felt more acutely at the highest military echelons. Mistakes and failures are inevitable in any human undertaking, and armed conflict adds additional challenges that make errors more likely and their consequence more severe. Senior commanders have to explain these mistakes and failures to political leaders and to the various publics whose continued support for the mission is paramount. Thus, while a pure trust-based relationship and decentralization are desirable, rules of engagement and other restrictions (in the employment of joint fires, for example) may be inevitable. The temptation to succumb to the elusive comfort of centralization also becomes harder to resist. However, only continued trust which has been forged through a wide range of shared experiences can turn setbacks into a tempered versus corrosive influence on morale and effectiveness.

(8) As always, the commander's intent and concept for accomplishing his mission determine the degree to which decisionmaking authority and combined arms capabilities are decentralized. As a general principle, however, the need for speedy decisions to exploit fleeting opportunities and react quickly to the exigencies of armed conflict requires commanders to empower subordinates with decisionmaking authority and the capabilities to influence the action down to the lowest practical level.



b. Become skilled in the art of design in addition to the other components of the operations process.

(1) The ACC states that “technology can enable operational adaptability, but a sound conceptual foundation for operations is the most important prerequisite for effective decentralized operations...Commanders ensure a sound conceptual foundation for operations and a mutual appreciation of complex mission situations through design.”<sup>88</sup> The Army has introduced design into its doctrine with FM 5-0. Given that the future OE will demand Army forces operate in a decentralized manner consistent with the commander’s intent and concept of operations; this means that commanders and staffs at increasingly lower echelons will need to be skilled in design to exercise mission command effectively.

(2) Framing the operational context and the problem is a prerequisite to developing a viable solution. Design is the methodology by which framing is conducted.<sup>89</sup> The object of design is to create a contingent logic when none is self-evident that enables a plan of action toward an improved state of affairs. That is, design is deciding what the problem is and planning is deciding how to solve the problem. Design sets the provisional causal logic for the problem to be solved and the military decisionmaking process is used to solve the problem based on that causal logic. Every time the problem’s frame changes, plans need to be updated.

(3) Design helps commanders discern the political, social, and strategic context within which the military problem lies. Otherwise, commanders may solve the military problem without its more nuanced strategic context and consequences. Proper context is co-created by continuous vertical and horizontal interaction across the force and with the relevant aspects of the OE. This interactive and iterative process of discernment and pattern recognition at every organizational level generates a proliferation of feedback loops that require collection, analysis, and synthesis. New information generates new questions, and synthesis at lower echelons is incorporated into the maturing operational picture, leading to the identification and exploitation of enemy vulnerabilities and friendly opportunities. Commanders and staff use information and intelligence collected and analyzed to design the operation and adapt the operation throughout all phases based on new information and intelligence.<sup>90</sup>

(4) Proper execution is more important than ever in uncertain, complex, and dynamic operational environments because grappling with ill-structured problems may be the only way to learn about them. Skeptical of the way they initially frame the problem and solution, commanders continue to test their hypothesis to failure. Commanders learn not only from their staffs during major operations process activities, they also learn from other commanders, Soldiers, battlefield circulation, engagement, and partners from joint, interagency, intergovernmental, and multinational organizations.<sup>91</sup> They apply the cycle of designing, planning, preparing, executing, assessing, and adapting not only to “turn inside the enemy’s decision cycle,” but also to “turn inside the learning adaptation cycle” of all actors, publics, and third-party validators critical to mission success.

(5) The commander must sanction all products of design; otherwise they would lack sufficient authority to be the basis for planning. Effective design requires systematic collective

critical and creative thinking. It also requires intellectual curiosity, the seed for research, study, learning, and adapting. Commanders collaborate vertically and horizontally to continuously assess the key variables of the operational environment to ensure their units adapt as quickly as necessary to retain the initiative. Commanders encourage questions of “facts,” judgments or otherwise, deliberately seek alternative views, and attempt to observe the situation from outside of existing frames, paradigms, or plans. They seek to recognize when the situation has changed sufficiently to warrant reframing the problem.

(6) Commanders strive to understand their adversaries, key publics and actors, popular perceptions, local grievances, economic and social conditions, and cultural and political dynamics. They identify assumptions upon which they base plans and operations, consult experts, prioritize intelligence collection, and direct the conduct of continuous surveillance to develop the situation further, reexamining the assumptions and adapting the plan or reframing the problem altogether as they achieve greater understanding. The commander has custody of this “collective vision,” but all contribute to it through feedback loops and pattern recognition, enabling him to modify it as new information allows. This rapid interactive adaptation is increasingly critical to mission accomplishment.<sup>92</sup>

(7) Effective application of design and the remaining operations process require the network enable tactical leaders to act in fluid, chaotic situations. The network must facilitate the co-creation of context and shared situational awareness to support shared understanding to enable leaders to generate and exploit opportunity and gain advantage with minimal risk of fratricide and collateral damage. A fused operations and intelligence picture provides higher headquarters better understanding of local situations and small unit leaders an appreciation of the broader situation implications of their actions.

c. Educate and train the force for the uncertain and complex future OE.

(1) Leader development and education. (See figure 2-8.)

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.

Army Capstone Concept

**Figure 2-8. Operational adaptability and leader development**

(a) Mission command calls for leaders with the wisdom to build a collaborative environment, the commitment to develop subordinates, the courage to trust, the confidence to delegate, the patience to endure mistakes, and the restraint to allow lower echelons to develop the situation. Specifically, mission command requires that leaders receive training, education, and experience to become the following:

- Critical and creative thinkers, agile, and able to make decisions in OEs replete with uncertainty, complexity, and change.

- Experts of design and the remaining components of the operations process, capable of framing and reframing problems and shifting rapidly from preplanned action.
- Skilled communicators able to engender understanding and support (or, at a minimum, empathy) for the mission from relevant publics, actors, and third-party validators.
- Clever and nimble practitioners who are able to integrate their efforts with unified action partners, string actions and activities together into campaigns, sensitive to the operational and strategic implications of their actions, and prepared to make recommendations and identify opportunities to senior commanders as they develop the situation through action.
- Inspirational leaders who are able to engender utmost trust and confidence with and among subordinates and fellow leaders.
- Lifelong students of the profession of arms, increasingly able to design, plan, execute, assess, and adapt military activities to prevail in three important dimensions of full-spectrum operations: contest of wills, strategic engagement, and cyber/electromagnetic contest.
- Adaptive leaders, skilled in the art of negotiation and mediation, prepared to develop host nation capabilities or exercise governance and support transitions to a more stable, credible, and legitimate government operating within the rule of law.
- Competent leaders, skilled in the tools, processes, network, and external enablers.

(b) The Commanding General, TRADOC, recognized that developing leaders to meet the challenges of uncertain, complex, and dynamic environments is crucial to future Army force. Thus, he established as his number one priority the implementation of the leader development strategy which was approved by the Army Chief of Staff in November 2009. The leader competencies listed above are consistent with that strategy. A key element in that strategy is moving away from the “sage on the stage” to the “guide on the side;” that is, an education system that is learner-centric (andragogical) versus teacher-centric (pedagogical). Realizing the promise of that strategy will require a universal commitment across the Army, from both the generating and operating force.

## (2) Training.

(a) Developing the situation through action enables a shared understanding and provides commanders the information they need to adapt the operation, or if necessary, to reframe the problem and updating plans altogether. Shared understanding is increasingly important in decentralized operations, wherein parent organizations gain and enhance situational understanding mainly through the activities of subordinate and adjacent elements. Thus, organizations at the lowest practical echelon must be trained, organized, and given the tools and commensurate authority to employ combined arms capabilities at the point of decision. The corollary is that leaders and Soldiers must be able to apply these tools.

(b) Future Army forces training and education must place lower echelons in uncertain and complex situations. Training programs and exercises must compel units to operate with degraded systems, under degraded conditions, and out of contact with their superiors for considerable periods of time so they can practice mission command, be challenged to take risks, and evaluated on how well they achieve higher commander’s intended purpose. To avoid risk-

averse behavior, it will be as important for commanders to underwrite mistakes and allow failure in training as it will be to reward successful execution.

(c) Training that emphasizes the commander's intended purpose and autonomous action and initiative will help foster trust and develop self-synchronization in future Army forces. This training can be likened to operating under radio silence, in which individual elements execute, learn, adapt, and execute again within the commander's intended purpose of the mission, but without direction from higher. This training is best conducted in a dispersed area of operation that replicates the unit's anticipated unique operating environment.

(d) Future Army forces leaders down to the lowest possible level will require progressive and reinforcement training on the systems that support collaborative planning and decisionmaking so their utilization becomes second nature. The capabilities and respective command and control processes, from unified action partners must be incorporated repeatedly into this training so leaders learn how to integrate them at the point of decision as a matter of course. Similarly, red teaming must be incorporated routinely to inculcate a culture that values learning, tests problem and solution frames, considers alternative approaches based on the anticipated interaction with adversaries and other aspects of their unique operating environment, and adapts operations or reframes the problem altogether based on the situational understanding gleaned through action.

(e) Future Army forces must be versatile and agile, led by innovative and adaptive leaders. It is imperative training is conducted in a manner that empowers junior commanders and non-commissioned officers to train their units. Senior leaders remember that the absolute trust and confidence necessary to succeed in the emerging OE is developed in the relationships forged during education and training in the field and in garrison. They take advantage of every opportunity to mentor, coach, and otherwise develop subordinates.

(f) The staff is the commander's enabling system dedicated to integrating all warfighting functions to accomplish the mission. Because of its critical importance, staff training is an integral part of the commander's training plan; it cannot be an afterthought.

(g) Training must be commander's business. Commanders and leaders at all levels ensure their units train as they will fight with every task done to standard and not to time.

(h) To ensure success, unit commanders provide training in languages and cultural nuances for regions of expected deployment. Commanders must assess readiness and adjust training conditions in the integrated training environment to meet training objectives and desired outcomes. The integrated training environment provides a realistic environment for commanders and their staffs to practice mission command through a combination of infrastructure, communications systems, live, virtual, constructive, and gaming enablers, and training and education scenarios to drive the simulations.

(i) Commanders must have mobile, adaptable, interoperable, networked, and reconfigurable training support capabilities that meet full-spectrum operations mission essential task list-based operational training strategies. These capabilities support future Army forces training, readiness,

and deployment cycles of corps, divisions, and brigades, as well as institutional strategies reflected in programs of instruction.

(j). Future Army forces require many capabilities that can only be achieved through the development of agile, expeditionary units, Soldiers, civilians, and their leaders. Training orchestrated by the Army's future force generation models - in its institutions, at home stations, at the combat training centers, and while deployed will help posture future Army forces to meet National Security requirements as part of unified action across the spectrum of conflict.

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*On the U.S. and coalition side of the security force assistance equation, it is especially important that senior leadership develop a trust in and empower subordinate leaders to make appropriate, timely decisions. While senior leaders must maintain acute situational awareness, decentralized control usually provides greater success and credibility with host nation security forces in the dynamic security force assistance environment.*

*Commander's Handbook for Security Force Assistance*

## **Chapter 3**

### **Core Operational Actions**

#### **3-1. Introduction**

The seven core operational actions addressed in this chapter were introduced in the ACC. They serve as key linkages between the ACC, AOC, and the six AFCs. The following paragraphs provide a brief synopsis of each core operational action, and then explain how mission command contributes to achieving its aims through the application of mission command networks and systems. Refer to the ACC for details on the core operational actions.

#### **3-2. Security force assistance**

a. 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. Security force assistance is essential to stability operations, countering irregular threats, preventing conflicts, and facilitating security transitions.

b. The proper exercise of mission command fosters successful security force assistance operations. Security force assistance operations typically require Army forces to embed with foreign counterparts and to operate decentralized and dispersed across large areas of operation. The characteristics of the operational environment will vary significantly from one area to another. Commanders will need to discern the particulars and impact of its variables to frame and reframe their unique problem and solution, providing broad freedom of action to lower echelons to respond and adapt to local conditions. Leaders will require the skills and attributes to collaborate across language and cultural boundaries and to negotiate and mediate agreements between factions with significantly different interests, objectives, and thresholds. Leaders must

be able to engage a variety of actors in a constructive manner.<sup>93</sup> The artful use of interpreters can help to influence and prepare host nation forces to take responsibility for their own security. The persistent engagement of Army special operations forces (ARSOF) and resulting partner coordination and cooperation will be indispensable. Irrespective of their culture, security forces and institutions must operate in accordance with the rule of law to maintain legitimacy and trust, and to be aligned with core American values.

c. The proper application of mission command networks and systems enables security force assistance through the timely flow of information. Security force assistance normally occurs in unified action and, hence, the sharing of relevant operational and intelligence information among participants is pivotal to achieving unity of effort. Security force assistance units will monitor, collect, and analyze multiple sources of political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT)<sup>94</sup> in the host nation language and culture to understand the perceptions, attitudes, and sentiments of key actors and publics critical to mission success. A collaborative environment of mutual trust enhances shared understanding, clarifies intent, improves decisionmaking, and supports the detailed coordination required in decentralized security force assistance operations.

### **3-3. Shaping and entry operations**

a. Army theater security cooperation efforts consist of a broad range of activities in peacetime and during armed conflict that combatant commanders use to shape their regional security environment. These activities typically also aim to set favorable conditions for the commitment of U.S. forces if conflict cannot be prevented. Should efforts to prevent conflict fail, Army forces must be prepared to conduct joint forcible entry operations to overcome the antiaccess and area denial technologies and capabilities. Forcible entry operations will require combined arms capabilities and access to joint capabilities, particularly intelligence, fires, logistics, airlift, and sealift.

b. The proper exercise of mission command enables unity of effort in what are certain to be uncertain, complex, and dynamic conditions. The learning-adaptation cycle is as important in shaping and early entry operations and it is in other types of military operations. Commanders and staffs apply design and other components of the operations process to learn and adapt military action quicker than their adversaries and other key actors, which will enable them to gain, maintain, and exploit the initiative for operational and strategic advantage. Shaping operations in particular require leaders with strong interpersonal and communications skills to collaborate and negotiate with joint, interagency, intergovernmental, and multinational partners and other actors and publics relevant to their mission. Through this collaboration and negotiation with partners, Army leaders set conditions to integrate external capabilities and promote unity of effort. Commanders provide broad freedom of action, combined arms capabilities, and the authority to apply them to the lowest practical echelons to enable them to develop the situation, adapt, and act decisively in fluid situations. This is particularly important to persistent engagement activities which are primarily conducted by small teams of special forces, civil affairs, and/or military information support operations units,<sup>95</sup> which will typically have been working in theater to enhance shaping operations. Civil affairs forces with sufficient capability to assess the civil environment in population-centric operations will provide an

essential bridge between joint, Army, and host nation forces. Commanders must be prepared to ensure ARSOF and conventional civil affairs units have the resources to enable essential governance functions when reinforcements from joint, interagency, intergovernmental, and multinational partners are not immediately available.

c. The proper application of mission command networks and systems enables collaboration and shared awareness among widely dispersed units while moving on the ground or in the air. Proper application also enables high levels of productivity and making the most of all opportunities, even those unexpected. Operationally responsive space and high altitude long endurance capabilities provide intertheater and intratheater communications services to the initial entry force while allowing time to reposition and reallocate other space platforms as the theater matures. Rapidly configurable and mobile command posts with on-the-move capabilities will be required to synchronize the arrival and onward movement of forces and integrate them into the joint operations area. The ability to defend the networks for these mobile command posts and react quickly if they are degraded or lost will be critical to mission success. En route mission planning, embedded rehearsals, and training tools are critical support to deploying forces.

### **3-4. Intertheater and intratheater operational maneuver**

a. Intertheater and intratheater operational maneuver entails the movement of forces to unexpected locations to achieve surprise, bypass enemy antiaccess and area denial capabilities, or gain positional advantage to enable offensive action.

b. The proper exercise of mission command ensures Army forces maneuver to positions that provide them an operational advantage with the combined arms capabilities to transition rapidly to offensive operations. Operational maneuver places an additional premium on leaders who are able to leverage design and other components of the operations process to learn and adapt operations more quickly and effectively than their enemy as the situation unfolds.

c. The proper application of mission command networks and systems enables leaders separated by extended distances to learn about the unique and continually unfolding situation and, thereby, maintain a common operational picture that makes possible the synchronization of forces and capabilities to achieve intended effects. Mobile and scalable command posts with on-the-move capabilities are essential.

### **3-5. Full-spectrum operations**

a. Full-spectrum operations is the Army's operational doctrine. Future 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 OE. Mission command that conveys intent and an appreciation of all aspects of the situation guides the adaptive use of Army forces.

b. The proper exercise of mission command, as explained in chapter 2, is indispensable to full-spectrum operations, particularly in uncertain, complex, and dynamic environments. Also explained in chapter 2 is the fact full-spectrum operations focus on prevailing in three interrelated dimensions: contest of wills, strategic engagement, and cyber/electromagnetic contest. Future Army forces must be prepared to exercise governance and achieve unity of effort in support of transitions to a more stable, credible, and legitimate government. Additionally, commanders must leverage the ability of ARSOF to collect, aggregate, analyze, and provide non-traditional types of information in a complex environment.

c. The proper application of mission command networks and systems enable the exercise of mission command and enable future Army forces to operate. Units are provided a battlefield visualization, understanding, coordination, and synchronized action by sharing, displaying, and integrating essential information (such as, friendly, enemy, civil, weather) from dismounted Soldier, platforms, and sensors to headquarters and will operate successfully in a degraded mode. Commanders will rapidly create, change, rehearse, disseminate, and distribute mission orders with graphics between command posts, air and ground platforms, and dismounted leaders and Soldiers. Units and unified action partners are provided effective communications to coordinate enemy, friendly, civilian intelligence and information as well as political, military, economic, social, infrastructure, and information variables across all Army echelons and external organizations. Air and ground integration will be enhanced through the integration of joint, multinational, and civil airspace users for both planning and near real-time execution.

### **3-6. Overlapping protection**

a. Overlapping protection entails the application of integrated, overlapping, and mutually supporting capabilities to prevent or mitigate the effects of threats and hazards directed against the U.S., its forces, allied personnel (combatant and noncombatant), and physical assets (critical military and host nation platforms, systems, and infrastructure) operating from fixed, semifixed, and mobile locations. Inherent to overlapping protection is the use of a multidomain approach, which seeks to mitigate threat effects at each domain and holistically across all five domains (air, land, maritime, space, and cyber).

b. The proper exercise of mission command balances the requirements for overlapping protection with other mission requirements. Operating decentralized in complex and uncertain environments with unified action lead to increased authority to subordinate commanders. The dispersion of small units over wide areas will make it difficult to achieve mutual support or to rely on specialized units to perform protection tasks. Subordinate leaders of these dispersed units must establish force protection measures based on their unique operational environment. Joint, interagency, intergovernmental, and multinational partners may not decentralize operations or accept the same level of risk as Army forces. Hence, future Army forces, particularly units conducting civil affairs, need to understand the doctrine and processes of joint, interagency, intergovernmental, and multinational partners to effectively integrate external capabilities into operations. Framing the level of acceptable risk in uncertain and complex operational environments entails many more variables to consider than the single variable of reducing risk to Soldiers. Indeed, prevailing against determined enemies always incurs risk to Soldiers. On the other hand, maintaining public support at home may mandate a reduction to the level of



acceptable risk to Soldiers. Risk decisions in uncertain and complex environments are an example of ill-structured mission situations for which there may be no good course of action, only a “least bad.”

c. The proper application of mission command networks and systems enhances overlapping protection. Advanced communications, data warehouse tool suites, and decision support tools rapidly fuse information to facilitate discernment of the situation and informed overlapping protection decisions. Proper application of mission command systems also help to receive early warning and make risk tradeoffs.

### **3-7. Distributed support and sustainment**

a. Distributed support and sustainment involves the continuous and uninterrupted flow of personnel, supplies, equipment, and units into and throughout the theater of operations. Continuous support and sustainment to deployed joint and Army forces operating decentralized is critical to preventing operational pauses and their consequent loss of initiative and risk to the mission and to the force.

b. The proper exercise of mission command is as important to sustainment operations as it is to other military action and the emerging OE compels the decentralization of both, while retaining the ability to reaggregate the capabilities should the situation warrant. Commanders may also need to provide enhanced support and sustainment to ARSOF in their area of operation. Commanders delegate sustainment capabilities to the lowest practical echelon to assess the impact of operations on local economies and to support economic and infrastructure development. Commanders leverage civil works projects and other opportunities to gain an operational advantage in the contest of wills and in strategic engagement.

c. The proper application of mission command networks and systems facilitates the purposeful conduct of distributed support and sustainment. Integration of sustainment data, including in-transit visibility and total asset visibility, enables the efficient flow of information vertically and horizontally with joint, interagency, intergovernmental, multinational, host nation, and nongovernmental organizations. The fusion of information and a shared appreciation of the situation enhance the quality of decisions, sustainment or otherwise, and better accommodate the needs of dispersed, distributed forces. Mission command systems also enable trauma response and healthcare with linkage to strategic national medical systems to facilitate medical sustainment and lifesaving capabilities to the force.

### **3-8. Network-enabled mission command**

a. Network-enabled mission command capitalizes on the network to extend connectivity of higher levels to the edges of the force with reach-back to both the Operational Force and the Generating Force. This connectivity has the potential to extend the benefits of decentralization without sacrificing coordination or unity of effort. Despite the potential advantages of improved network capabilities, it is likely that future adversaries will attack networks in an attempt to disrupt operations.

b. Capitalizing on network enabled mission command is integral to prevailing in the cyber/electromagnetic contest, thereby minimizing degradation of friendly forces.<sup>96</sup> Similarly, central to mission command and to successful full-spectrum operations in the emerging OE are leaders and Soldiers comfortable operating under degraded conditions. To reduce the likelihood of network disruption, mission command focuses future force network designs on eliminating single points of vulnerability and maximizing the use of a multidomain approach. These designs include self-healing networks and highly reliable protected equipment. When failures do occur, either due to enemy action, weather, or equipment failure, redundant capabilities will mitigate the impact of degraded networks.

c. Leaders and Soldiers must be proficient in the systems and tools that enable the 10 mission command essential capabilities found in appendix B. Realizing this proficiency will require both personal and professional development effort. Ultimately, mission command -- where leaders are trained to act in accordance with the commander's intended purpose of higher missions and formations are organized with the combined arms capabilities and authority to operate decentralized -- better enables the future force to operate effectively even when the network is degraded. This requires a mindset that exploits the potential of technology, but understands leadership is the indispensable element in full-spectrum operations.

d. Mission command networks and systems clearly facilitate successful operations. They provide synthesized information, enabling leaders to exercise informed decisionmaking without being overburdened. Network enabling applications can assist in communications but does not ensure understanding. Skilled linguist and culturally astute specialists are required to communicate effectively with joint, interagency, intergovernmental, and multinational partners and potential host nation partners. Commanders also will need to coordinate the compatibility of systems with ARSOF and joint, interagency, intergovernmental, and multinational partners in their area of operations. Commanders must always trust subordinates over technology. Balancing the use of network enabling tools with personal battlefield circulation will yield a much better and shared appreciation of the situation across the force.

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## **Chapter 4**

### **Conclusion**

a. The concept of mission command has evolved in tandem with the ACC and AOC, as well as the USMC Operating Concept for Mission Command, from the Army's preferred style for exercising command to a concept that encompasses both the Army's philosophy of command, aimed at adapting and achieving advantage in complex and uncertain OEs, and the integrating function that combines the capabilities of all warfighting functions to accomplish the mission. The definition of mission command has evolved accordingly to recognize both roles. Mission command is the exercise of authority and direction by commanders, supported by their staffs using the art of command and the science of control, to integrate warfighting functions in the conduct of full-spectrum operations. Mission command uses mission orders to ensure discipline initiative within the commander's intent, enabling agile and adaptive commanders, leaders, and organizations.

b. TRADOC Pam 525-3-3 explains how the concept of mission command has evolved given the strategic trends and future OE. It codifies the tenets of this expanded concept of mission command. It considers how Army forces apply mission command to prevent and deter conflict, prevail in war, and succeed in a wide range of contingencies. It also identifies the capabilities future Army forces will require in the 2016-2028 timeframe to enable the successful application of mission command in full-spectrum operations.

c. The evolved concept of mission command is not a magic potion, and the tenets of Mission Command cannot simply be trained; rather they must be developed in Army leaders. If future force leaders are to apply mission command, its formal adoption alone is insufficient to enhance operational capability. Ultimately, the extent mission command is imbued in future Army forces will be determined by the witting and unwitting actions of confident senior leaders. History is replete with examples of forces that achieved extraordinary results when inspired with the proper application of mission command. The demands of the OE will require no less of future Army leaders at all echelons.

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## **Appendix B Required Capabilities**

### **B-1. Introduction**

This appendix reflects two levels of required capabilities. Level 1 capabilities were generated from the key ideas in this pamphlet. Level 2 required capabilities were generated from the other five AFCs and other key organizational documents, (such as from ARSOF, space, and others) to reflect the capabilities the mission command capabilities-based assessment must address for the ideas in those other concepts to succeed. TRADOC Pam 525-3-3 is the integrating function for the other five AFCs. It does not have dependencies on the other warfighting functions; however, it does provide enabling capabilities to all warfighting functions (the art and science of mission command) at all echelons. The level 2 required capabilities provided by the other CoEs to the mission command warfighting function reflect this dependency.

### **B-2. Level 1**

a. The following key level 1 required capabilities are based on a meta-analysis of multiple sources to include the ACC, the Network-Enabled Mission Command Initial Capabilities Document, TRADOC Pams 525-7-4, 525-7-6, 525-7-17, 525-7-3, the LandWarNet concept of operations, and related capabilities-based assessments. Other supporting sources include previous Army concepts, and lessons learned from the last 9 years of conflict. To operate decentralized across the full-spectrum operations future Army forces require the following:

b. Future Army forces require the capability to educate and train the force to exploit initiative in uncertain, complex, and dynamic operational environments within a unified action context, to achieve tactical, operational, and strategic advantage to operate decentralized across the full-spectrum operations.

c. Future Army forces require the capability to operate in a centralized or decentralized manner, in a unified action context, to achieve tactical, operational, and strategic advantage across full-spectrum operations.

d. Future Army forces require the capability to develop leaders and staffs with expertise in design and the other components of the operations process to operate decentralized in an uncertain, complex, and dynamic unified action context.

e. Future Army forces require the capability to enable battlefield visualization, understanding, coordination, and synchronized action by sharing, displaying, and integrating essential information (such as, friendly, enemy, civil, weather) from dismounted Soldier to Army senior component command to ensure network enabled mission command, including the incorporation

of ground and air platforms, mission command systems, joint and Army sensors, and operating successfully in a degraded mode, in a unified action context.

f. Future Army forces require the capability to provide timely flow of information (including the capability of operating in a degraded mode) in accordance with the commander's priorities with integrated, protected, layered, and secure communications capable of line-of-sight and beyond line-of-sight reach to achieve unity of effort in unified action during decentralized full-spectrum operations.

g. Future Army forces require the capability to enable collaboration to facilitate common situational understanding and interactive adaptability vertically and horizontally across the force to support full-spectrum operations in a unified action context.

h. Future Army forces require the capability to ensure effective communication and coordination of enemy, friendly, civilian intelligence and information as well as political, military, economic, social, infrastructure, and information variables across all Army echelons and external organizations to achieve unity of effort in unified action.

i. Future Army forces require the capability to provide commanders the ability to maintain situational understanding while moving in the air and on the ground to synchronize action and exploit the initiative in a unified action context.

j. Future Army forces require the capability to gain and maintain the cyber/electromagnetic advantage and deny same to adversaries to seize, retain, and exploit advantage across the five warfighting domains (land, air, maritime, space, and cyberspace) in a unified action context. This includes the capability to manage and allocate the electromagnetic spectrum to understand and exploit the spectrum.

k. Future Army forces require the capability to monitor, collect, and analyze multiple sources of PMESII-PT in foreign languages and cultures to understand the perceptions, attitudes, and sentiments of key actors and publics critical to mission success in a unified action context.

l. Future Army forces require the capability to engage and communicate via multiple means (face-to-face, print, broadcast media, text messages, social networks, and other emerging collaboration technology) to influence the perceptions, attitudes, sentiments, and behavior of key actors and publics critical to mission success in a unified action context.

m. Future Army forces require the capability to establish a geospatial foundation that enables an accurate display to support critical information intelligence, warfighting functions data tailored to a unit's mission, task, and purpose, and enables visualization and dissemination of tactical plans via mission orders and graphic overlays to ensure common situational awareness in a unified action context.

n. Future Army forces require the capability to create, change, rehearse, disseminate, and distribute mission orders (both voice and written) with attached graphics between command

posts, air and ground platforms, and dismounted leaders and Soldiers to seize and exploit the initiative in a unified action context.

o. Future Army forces require the capability to continuously gather and track information to support running estimates and tactical decisionmaking while developing the situation during full-spectrum operations in a unified action context.

p. Future Army forces require the capability to train and develop staffs that are proficient in staff processes in an uncertain and complex unified action context.

q. Future Army forces require the capability to allocate network resources in accordance with the commander's priorities to ensure network-enabled mission command in all conditions. This includes the capability of operating in a degraded mode.

r. Future Army forces require the capability for commanders and staff to conduct mission command activities in deployable locations that are configurable to the commander's unique mission and operating environment and capable of integrating external as well as organic resources to enable units to operate decentralized in a unified action context.

s. Future Army forces require the capability to employ joint, multinational, and civil airspace control capabilities for the planning and integration of airspace user requirements to enable unity of effort in unified action.

t. Future Army forces require the capability to sanitize, disseminate, share, and exchange information across all Army echelons and with joint, interagency, intergovernmental, multinational, nongovernmental, and host nation organizations to enable collaboration and unity of effort in unified action.

u. Future Army forces require an environment that achieves balance between systems and the human dimension and supports the pursuit of lifelong learning to imbue the tenets and key ideas of mission command.

v. Future Army forces require the capability to exercise governance and achieve unity of effort in support of transitions to a more stable, credible, and legitimate government in a unified action context.

### **B-3. Level 2**

a. The following list represents level 2 required capabilities. These were developed by the other AFCs as dependencies to TRADOC Pam 525-3-3. The mission command capabilities-based assessment will integrate these into its analysis. To operate decentralized across the full-spectrum operation, future Army forces require the following.

b. Intelligence.

(1) Future Army forces require the capability to integrate commander's intent and guidance with intelligence collection, planning, and analysis to enhance operations and intelligence integration and provide intelligence that supports all levels of decisionmaking.

(2) Future Army forces require the capability to integrate commander's priority information requirements with intelligence collection, planning, and analysis to enhance operations and intelligence integration and provide intelligence that supports all levels of decisionmaking.

(3) Future Army forces require the capability to integrate every Soldier as a sensor information with intelligence collection, planning, and analysis to enhance operations and intelligence integration and provide intelligence that supports all levels of decisionmaking.

c. Movement and maneuver.

(1) Future Army forces require the ability to conduct information operations (IO) to degrade adversary command and control, protect friendly capabilities and intentions, and influence various audiences in the area of operations and area of interest.

(2) Future Army forces require the capability to fully integrate ground and air situational awareness systems which will provide a common operational picture to subordinate units to enable operating decentralized in a unified action context.

(3) Future Army forces require the capability to enable subordinate elements to maintain communications when widely dispersed and operating decentralized to enable mission command.

(4) Future Army forces require the capability to enable voice and digital communications to the dismounted Soldier, to provide them with accurate and timely situational awareness to enable mission command.

(5) Future Army forces require sufficient communications capabilities to enable massing the effects of combat power to win the close fight.

(6) Future Army forces require sufficient capability to integrate augmentation to company level in areas including electronic warfare, IO, explosive ordnance disposal, chemical, biological, radiological, nuclear, and high yield explosives, interpreters, and detainee experts to support full-spectrum operations.

(7) Future Army forces require the capability to execute mission command on-the-move to maintain the momentum in the offense.

(8) Future Army forces require the capability to access secure and unsecured networks to the company level to enable them to share information with unified action and host nation partners to improve interoperability.

(9) Future Army forces require the capability to provide sufficient dismounted situational awareness and communications to win the close fight.

(10) Future Army forces require the capability to establish a secure and integrated common operational picture to enable mission command.

(11) Future Army forces require the capability to maintain current situational awareness on the location of the sustainment vehicles operating in the commander's area of operations to support and sustain operations from and across extended distances.

(12) Future Army forces require the capability to access systems that enable training and virtual interactive mission rehearsals to support operations to enable mission command.

(13) Future Army forces require the capability to exercise control of unmanned aircraft (manned-unmanned teaming) during joint and combined arms air-ground operations to extend range and resolution, protect manned platforms, and improve persistence of the manned and unmanned team when conducting reconnaissance and surveillance operations.

(14) Future Army forces aviation platforms require the capability for direct access to joint and Army and fire delivery systems to provide extended range, networked, responsive precision or volume fires and the capability to provide close combat attack and/or integrate close air support on demand during joint and combined arms air-ground operations to support tactical maneuver.

(15) Future Army forces aviation platforms require the capability to receive air threat warning, alerting, and cueing information and to detect, identify, and defeat low, slow flying unmanned aerial systems and rotary wing threats down to platform level during joint and combined arms air-ground operations to provide lethal overmatch against threats and provide security to friendly forces.

(16) Future Army forces require the capability to integrate airspace users supporting ground maneuver operations automatically in accordance with commanders' priorities and risk assessment during planning and execution to conduct effective and timely joint and combined arms operations.

(17) Future Army forces require the capability to operate and provide air traffic services for Army and joint airfields and provide tactical air traffic services in support of air-ground operations to optimize joint air capabilities and reduce the risk of fratricide.

(18) Future Army forces require the capability to communicate non-line-of-sight and below line-of-sight (voice, data, imagery, video) through a single integrated mission command system, joint capable to the lowest levels, to enable mission command on-the-move from both ground and aerial platforms to provide commanders and crews the ability to maintain situational awareness and exercise mission command.

(19) Future Army forces require the capability to conduct en route planning and mission rehearsal at home station, during deployment, and in theater to facilitate immediate employment upon arrival.

(20) Future Army forces require the capability to utilize integrated, protected, layered, and secure voice and data communications network capable of both line-of-sight and beyond-line-of-sight to enable the timely flow of essential information in a unified action context characterized by decentralized planning and execution of full-spectrum operations.

(21) Future Army forces require the capability to conduct offensive and defensive electronic warfare and electromagnetic spectrum operations in a unified action context to degrade or destroy enemy capabilities and protect friendly capabilities to provide freedom of action during full-spectrum operations.

(22) Future Army forces require the capability to access live, virtual, and constructive system to support mission rehearsals.

(23) Future forces require the capability to see the low level air picture (friendly and enemy) to facilitate airspace command and control and provide early warning for self-protection actions to effectively employ friendly air systems and protect the force.

d. Fires.

(1) Future Army forces require the capability of reliable communications networks to transmit timely mission command information and fire control data over extended ranges to provide offensive and defensive fires in support of widely dispersed, full-spectrum operations.

(2) Future Army forces require the capability to maintain an accurate and complete common operational picture including fires information to enable commanders to make informed decisions to coordinate and clear fires on the ground and through the airspace during the conduct of full-spectrum operations.

(3) Future Army forces require redundant and survivable communications systems to mitigate the effects of enemy attacks and to provide offensive and defensive fires during full-spectrum operations.

(4) Future Army forces require a fire net that provides assured communications, capacity, and timeliness to expedite the clearance and execution of offensive and defensive fires.

(5) Future Army forces require the capability to communicate with joint, interagency, intergovernmental, and multinational partners across classified and unclassified networks to conduct full-spectrum operations.

(6) Future Army forces require an organic mission command capability that seamlessly provides line-of-sight, non-line-of-sight, and beyond line-of-sight access to secure internet protocol router, nonsecure internet protocol router, and other global information grid services at

all Army air defense artillery echelons to enable planning, coordination, and execution of integrated air and missile defense and enable decentralized and centralized air and missile defense operations during full-spectrum operations from the tactical to strategic level.

e. Protection.

(1) Future Army forces require the capability to execute tactical network operations which provide commanders and leaders the ability to provide early warning and match network resources to changes in mission and unique functional requirements envisioned to provide protection and ensure network enabled mission command during full-spectrum operations.

(2) Future Army forces require the capability to integrate antiterrorism and force protection planning in a joint operating environment, to prepare and integrate protection measures into current and future operations.

(3) Future Army forces require the capability to integrate sensor capabilities to create and maintain situational understanding for future assessments and provide early warning.

f. Sustainment.

(1) Future Army forces require the capability to provide single source data input that feeds and interrogates a single, integrated, and collaborative common operating picture to support operations in the future operating environment.

(2) Future Army forces require the capability to be interoperable with joint, interagency, intergovernmental, and multinational partners.

(3) Future Army forces require the capability to enable sustainment leaders at lower echelons to make decisions during the conduct of decentralized operations in the future operating environment.

(4) Future Army forces require the capability to understand the cultural aspects, particularly with regard to sustainment operations associated with the area of operations in full-spectrum operations in the future operating environment.

g. ARSOF.

(1) Future Army forces require the capability to increase points of integration between knowledge management repositories and operations personnel. Knowledge management processes must provide useful information to the operational commander with a view of the entire operational environment. ARSOF mission command functions must be fully integrated with knowledge management capabilities.

(2) Future Army forces require the capability to coordinate mission command and knowledge management systems to ensure mission command interoperability and unity of effort among the force.

(3) Future Army forces require the capability to resource and support the civil affairs brigade's standing civil military operations centers for immediate response to humanitarian operations when U.S. forces are deployed.

(4) Future Army forces require the capability to focus intelligence, surveillance, and reconnaissance planning and direction on the coordinated efforts of the force through intelligence requirements to provide a robust situational awareness and relevant information necessary for commanders.

(5) Future Army forces require the capability to develop, store, access, synthesize, and share elements of the operational variables in an enduring, modifiable, and continuously updated database. This database must be accessible to and yield a common situational understanding to the force and mission partners.

(6) Future Army forces require the capability for cyber network operations and cyber warfare to enable commanders to gain advantage, protect that advantage, and place adversaries of all type at a disadvantage.

(7) Future Army forces require the capability to utilize, contract, integrate, and track sustainment assets from host nations, nongovernmental organizations, intergovernmental organizations, and the private sector in a unified action environment to obtain unity of command in decentralized full-spectrum operations.

(8) Future Army forces require the capability to augment ARSOF to provide essential governmental functions without the reinforcement of other U.S. government agencies or organizations to provide rapid response to host nation requirements in full-spectrum operations.

(9) Future Army forces require the capability for civil affairs to monitor, collect, and analyze multiple sources of PMESII-PT in foreign languages and cultures to understand the perceptions, attitudes, and sentiments of key actors and the public in full-spectrum operations.

(10) Future Army forces require the capability to support civil affairs advanced civilian education in foreign policy, international relation, strategy, government functional skills necessary to maintain the professional and civilian expertise necessary to ensure the Army's complete success of assigned tasks.

(11) Future Army forces require the capability to synchronize, coordinate, and deconflict operations between general purpose forces and ARSOF elements in the joint operating area to achieve unity of effort at the lowest practical echelon.

g. Space operations.

(1) Future Army forces require the capability to conduct friendly force tracking, provide access to, and integrate information on location, identity, and status, in a joint, interagency, intergovernmental, and multinational environment to enhance situational awareness and understanding in conducting full-spectrum operations.



(2) Future Army forces require the capability to provide an accurate and reliable position, navigation, and timing infrastructure able to detect and automatically report incidents of jamming, spoofing, or other electromagnetic interference to ensure friendly freedom of action and deny adversary freedom of action.

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## **Appendix C**

### **Mission Command by Echelon**

#### **C-1. Introduction**

The tenets of mission command are conducted throughout all echelons of the future Army forces. Commanders at theater Army, corps, division, brigade combat team (BCT), battalion, and below will all decentralize authority and capabilities to the lowest practical level, empowering their subordinate commanders based on trust, shared operational understanding, and the enemy situation. Different echelons possess specific capabilities and enablers that they may or may not be able to distribute based on the lower headquarters ability to control those enablers.

#### **C-2. Theater Army**

As the Army's highest operational headquarters, theater Army headquarters execute mission command by establishing communications, network operations, intelligence, protection, and sustainment infrastructures to support subordinate commanders. Theater Armies also provide support to subordinate commanders with theater air and missile defense, coordination of air support and ground fire support, coordination with unified action partners and host nation governments, detainee operations, and theater sustainment. Theater Army headquarters may assume administrative control of subordinate warfighting headquarters within the joint area of operations, but will rarely exercise direct mission command over subordinate units.<sup>97</sup>

#### **C-3. Corps**

a. As the Army's primary operational headquarters within a joint operations area, corps headquarters use the tenants of mission command to direct multiple, simultaneous, or sequential operations to achieve campaign objectives. They also integrate joint, interagency, intergovernmental, and multinational partner capabilities to achieve strategic goals. Corps headquarters synchronize intelligence, reconnaissance, and surveillance activities from the national to the tactical level to assist subordinate commanders in developing a common situational understanding of their area of operations.

b. The corps commander and his staff use design to link major operations to theater and national strategies. The corps headquarters plays a major role in developing the co-creation of context with division and BCT commanders and staffs, and provides full joint connectivity. Corps headquarters may augment subordinate units with the following elements: civil affairs teams, digital liaison detachments, public affairs detachments, chemical, biological, radiological, nuclear, and high yield explosives detachments, and knowledge management teams.<sup>98</sup>

#### **C-4. Division**

As the Army's primary tactical level headquarters, the division headquarters allocates resources to BCTs, coordinates the activities of assigned and attached forces, synchronizes joint capabilities, coordinates interagency, coalition, and multinational partners, protects lines of communication, and empowers BCTs and other subordinate units to fight and win battles and engagements.<sup>99</sup> At both the corps and division level, headquarters task organize forces for effective mission command, allocate assets to subordinates, establish command and support relationships, determine favorable correlation of forces for decisive operations, determine sufficient correlation of forces for economy of force operations, and position units to provide mutual support effectively. Both division and corps level headquarters have mobile command groups to provide mission command on the move and better facilitate co-creation of context with BCT and battalion commanders. Division headquarters provide airspace command and control for subordinate units and is the lowest practical headquarters for a joint air ground integration cell.<sup>100</sup>

#### **C-5. Brigade**

As the Army's principal tactical echelon formation, the modular brigade headquarters directs subordinate combined arms battalions and supporting battalions to gain advantage through tactical maneuver, win the close fight, and stabilize environments through security force assistance and building partnerships with local authorities and civil populations using decentralized combined arms maneuver. Brigades are trained to employ enablers from higher headquarters units including attack, lift, and reconnaissance aviation, long-range and satellite communications systems, and nonorganic artillery systems. Brigade headquarters provide combined arms air-ground reconnaissance to assist in developing the co-creation of context laterally and vertically from theater to company level.<sup>101</sup> Cyber war operations are typically conducted at brigade level and higher when augmented.<sup>102</sup>

#### **C-6. Battalion**

Battalions are the lowest level organizations with an organic staff to assist the commander in developing the co-creation of context. Battalion commanders have fewer enablers to push down to subordinates than higher level commanders, but can provide air weapons teams, explosive ordnance disposal, site exploitation teams, and document exploitation teams to their companies based on METT- TC if task organized to the battalion by higher headquarters.

#### **C-7. Company and below**

Mission command at the company level primarily involves the commander. Company intelligence support teams assist the company commander by providing him vital intelligence of his local area of operations necessary to provide input into the co-creation of context. The company commander typically controls all enablers sent down to him from higher headquarters.

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## Glossary

### Section I

#### Abbreviations

ACC	Army Capstone Concept
AFC	Army Functional Concept
AOC	Army Operating Concept
ARCIC	Army Capabilities Integration Center
ARSOF	Army special operations forces
BCT	brigade combat team
CoE	center of excellence
DA	Department of the Army
DOD	Department of Defense
DOTMLPF	doctrine, organizations, training, materiel, leadership and education, personnel, facilities
EMS	electromagnetic spectrum
FM	field manual
IO	information operations
JOE	joint operating environment
JP	joint publication
METT-TC	mission, enemy, time, terrain, troops available and civilian consideration
OE	operational environment
Pam	pamphlet
PMESII-PT	political, military, economic, social, information, infrastructure, physical environment, and time
QDR	Quadrennial Defense Review report
TRADOC	Training and Doctrine Command
U.S.	United States
USMC	United States Marine Corps
WMD	weapons of mass destruction

### Section II

#### Terms

##### **civil support**

DOD support to U.S. civil authorities for domestic emergencies, and for designated law enforcement and other activities.

##### **decentralization**

The dispersion or distribution of power from a central authority to regional and local authorities.

##### **design**

A methodology for applying critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them. For the purpose of this pamphlet, design is mainly about making sense of difficult-to-understand and continually-

evolving situations, enabling commanders and their team to establish a tentative frame of their unique mission problem. Hence, the object of design is to create a contingent logic when none is self-evident that exploits the potential for change toward an improved state upon which to base a plan of action. Since complex mission situations do not enable precise definitions of end states and change during extended operations, design aims to get things headed in the “right” rather than “wrong” direction while the organization engages its unique operating environment to learn and adapt. Learning produces increased discernment of the situation and drives reformulation of the problem, which in turn drives adaptation.

### **homeland defense**

The protection of U.S. sovereignty, territory, domestic population, and critical defense infrastructure against external threats and aggression or other threats as directed by the President.

## **Section III**

### **Special terms**

#### **co-creation of context**

A continuous process in which commanders direct intelligence priorities to drive operations, and the intelligence that these operations produce causes commanders to refine operations based on an improved understanding of the situation.

#### **combined arms**

The combination of the elements of combat power with the integration and sequencing of all actions, activities, and programs necessary to seize, retain, and exploit the initiative in the context of full-spectrum operations.

#### **combined arms maneuver**

The application of the elements of combat power in a complementary and reinforcing manner to achieve physical, temporal, or psychological advantages over the enemy, preserve freedom of action, and exploit success.

#### **contest of wills**

That dimension of full-spectrum operations which aims to prevail against determined enemies, warring factions, criminal groups, other threats, and potential adversaries.

#### **cyber/electromagnetic contest**

That dimension of full-spectrum operations which aims to gain advantage, maintain that advantage, and place adversaries at a disadvantage in the increasingly contested and congested cyberspace domain and electromagnetic spectrum.

#### **ill-structured mission situation**

Mission situations with ambiguous and multiple objectives, parallel and sequential logical lines of operations, fragile informal alliances, multiple shadowy and non-hierarchical adversaries, and unclear contextual boundaries. Ill-structured mission situations make a priori and/or standoff understanding of logic impossible. Experience and doctrine are uncertain guides. Complexity derives from dynamic interactions with multiple, novel actors interacting along complex hidden

causal chains. Ill-structure mission situations require learning and iterative adaptation to inform and refine the problem frame.

### **integrated training environment**

The linkage of selected training aids, devices, simulators, infrastructure, mission command, and knowledge management systems, and a training framework to approximate the conditions of the operational environment for training and education for full-spectrum operations in any of its training domains: operational, institutional, and self-development.

### **mission command**

The exercise of authority and direction by commanders, supported by their staffs, using the art of command and the science of control to integrate warfighting functions in the conduct of full-spectrum operations. Mission command uses mission orders to ensure disciplined initiative within the commander's intent, enabling agile and adaptive commanders, leaders, and organizations.

### **mission command networks and systems**

The coordinated application of personnel, networks, procedures, equipment, and facilities, knowledge management, and information management systems essential for the commander to conduct operations. An effective mission command system enables commanders and is essential for commanders to conduct operations that accomplish the mission decisively. (Replaces command and control systems.)

### **network**

A single, secure, standards-based, versatile infrastructure linked by networked, redundant transport systems, sensors, warfighting and business applications, and services that provide Soldiers and civilians timely and accurate information in any environment, to manage the Army enterprise and enable full-spectrum operations with joint, allied, and interagency partners.

### **operating decentralized**

A manner of conducting military operations which enables subordinates to act aggressively and independently with disciplined initiative to develop the situation; seize, retain, and exploit the initiative; and cope with uncertainty to accomplish the mission within the commander's intent.

### **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 ability to make rapid adjustments based on a continuous assessment of the situation.

### **strategic engagement**

That dimension of military operations aimed at sustaining public support at home, gaining allies abroad, and generating support for the mission, particularly in the area of operation.

**wide area security**

The application of the elements of combat power in coordination with other military and civilian capabilities to deny the enemy positions of advantage; protect forces, populations, infrastructure, and activities; and consolidate tactical and operational gains to set conditions for achieving strategic and policy goals.

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## Endnotes

<sup>1</sup> Unified action is the synchronization, coordination, and/or integration of the activities of governmental and nongovernmental entities with military operations to achieve unity of effort. JP 1.

<sup>2</sup> Full-spectrum operations comprise the central concept in FM 3-0: *Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force. They conduct combined arms operations to develop the situation through action to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results. The adaptive use of Army forces is guided by mission command that conveys commander's intent and is informed by an understanding of the operational environment.*

<sup>3</sup> Operational environment is “a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. (JP 3-0) For a detailed description of the future OE, refer to TRADOC “Operational Environment 2009-2025.”

<sup>4</sup> The strategic trends are codified in the *2010 Joint Operational Environment*, U.S. Joint Forces Command, 18 February 2010 (2010 JOE).

<sup>5</sup> A tenet is a principle, belief, or doctrine generally held to be true, especially one held in common by members of an organization, movement, or profession. (Merriam-Webster)

<sup>6</sup> AOC, 11.

<sup>7</sup> The seven core operational actions outlined in the ACC are: *conduct security force assistance, shaping and entry operations, intertheater and intratheater operational maneuver, full-spectrum operations, overlapping protection operations, distributed support and sustainment, and network enabled mission command.* For a detailed description of these core actions, refer to TRADOC Pam 525-3-0, 24-30.

<sup>8</sup> TRADOC Pam 525-3-0, *Army Capstone Concept, (ACC) Operational Adaptability—Operating Under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict.* Hereafter cited as “ACC.”

<sup>9</sup> *Ibid.*, 30.

<sup>10</sup> “Fog of war” is a term used to describe ambiguity experienced by participants in military operations. It is ascribed to the Prussian military theorist Carl von Clausewitz, who wrote: “The great uncertainty of all data in war is a peculiar difficulty, because all action must, to a certain extent, be planned in a mere twilight, which in addition not infrequently—like the effect of a fog or moonshine—gives to things exaggerated dimensions and unnatural appearance.” Clausewitz, Carl von. *On War*. Book 2, chapter 2, para 24.

<sup>11</sup> In general, S-O-S and ONA are methods that view problems in terms of systems representing coupled layers of a grand infrastructure network, more generally labeled a network of networks. The principal premise with both methods is that though a problem may require specific expertise, viewing it as part of a more complex system will derive common characteristics and solutions. The methods tend to oversimplify human interactions and nuances. See, for example, DeLaurentis, D. Callaway, R.K. “A System-of-Systems Perspective for Public Policy Decisions.” *Review of Public Policy Research*, Vol. 21, Issue 6, November 2004, 829-837.

<sup>12</sup> Adapted from an unpublished paper H.R. McMaster provided, “Thoughts on Mission Command,” 1.

<sup>13</sup> *2010 Joint Operational Environment*, U.S. Joint Forces Command, 18 February 2010 (2010 JOE).

<sup>14</sup> Assumptions from the ACC: (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). (7) The U.S. will continue to employ an all-volunteer force.

<sup>15</sup> Assumptions from the ACC: (1) Uncertainty in the future operational environment will continue to increase as political, economic, informational, and cultural systems become more complex and interconnected. (2) Adversaries will be able to achieve tactical, operational, and strategic surprise based on rapid application of available and emerging technologies in both manned and unmanned systems. (3) U.S. forces will operate in environments where land, air, space, maritime and cyberspace superiority is increasingly contested by an ever widening set of state and nonstate actors with sophisticated capabilities. (4) U.S. forces will face increasing antiaccess and area denial challenges due to strategic preclusion, operational denial, and tactical overmatch. (5) U.S. forces will have limited ability to overcome antiaccess and area denial capabilities, deploy into austere locations, and sustain operations in immature theaters. (6) The Army will continue to employ the Army National Guard and Army Reserve on a routine basis as part of its operational forces. (7) The Army will continue to use a force management model that relies on unit replacement and cyclical readiness to govern the training, deployment, and reset of its operational forces. (8) Army modernization efforts will provide incremental, brigade-based capability improvements to the force.

<sup>16</sup> Competencies are demonstrated through behaviors that can be observed and assessed by a spectrum of leaders and followers: superiors, subordinates, peers, and mentors. See FM 6-22, *Army Leadership* (October 2006), 2-7.

<sup>17</sup> See, for example, Army Research Institute’s Research Report #1913, “Science of Human Measures Workshop: Summary and Conclusions,” October 2009.

<sup>18</sup> See, for example, LTG(R) Walt Ulmer’s “Notes on the Army Capstone Concept,” 7 February 10.

<sup>19</sup> See, for example, GEN(R) Gary Luck and COL(R) Michael Findlay, “Joint Distributed Operations: Insights,” 10 February 10 draft; and, Joint Warfighting Center’s Focus Paper #4: *JTF Level Command Responsibilities and Joint Force Organization: Insights and Best Practices*, Nov 07.

<sup>20</sup> The six supporting ideas contained in the ACC are: *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 psychological and technical influence.* For a detailed description of these ideas, refer to TRADOC Pam 525-3-0, 17-24.

<sup>21</sup> The seven core operational actions in the ACC are: *conduct security force assistance, shaping and entry operations, intertheater and intratheater operational maneuver, full-spectrum operations, overlapping protection operations, distributed support and sustainment, and network-enabled mission command.* For a detailed description of these ideas, refer to TRADOC Pam 525-3-0, 24-30.

<sup>22</sup> Combined arms maneuver is “the application of the elements of combat power in a complementary and reinforcing manner to achieve physical, temporal, or psychological advantages, preserve freedom of action, and exploit success. AOC, 13.

<sup>23</sup> *Ibid.* Army forces conduct security operations over wide areas to enable economic and political reconstruction, promote governance and the rule of law, and set the conditions for transfer of security responsibilities to host nation forces.

<sup>24</sup> AOC, 14.

<sup>25</sup> The AOC's seven supporting ideas are: *operate decentralized, integrate intelligence and operations, conduct air-ground operations, employ expanded capabilities at the tactical level, inform and influence populations, conduct effective transitions, and develop enhanced levels of unit cohesion*. For a detailed description of these supporting ideas, refer to TRADOC Pam 525-3-1, 16-21.

<sup>26</sup> The AOC's operational and tactical level actions the future Army force must be able to conduct effectively are: *full-spectrum operations, homeland defense and civil support, sustained engagement, entry operations, prevent proliferation of weapons of mass destruction, military cyberspace operations, and foreign humanitarian assistance operations*. For a detailed description of these actions, refer to TRADOC Pam 525-3-1, 26-40.

<sup>27</sup> AOC, 12.

<sup>28</sup> The Army's operational concept of full-spectrum operations expressed in the 2008 FM 3-0 is: *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*. Para 3-2, 3-1.

<sup>29</sup> As cited here, the German concept of Auftragstaktik is based on translations of the following sources: *Exezir-Reglement fuer die Infanterie* (Berlin: E.S. Mittler und Sohn, 1889), 108-09; *Exezir-Reglement fuer die Infanterie* (Berlin: E.S. Mittler und Sohn, 1906), 78, 90-91; *Truppenfuehrung, Teil I*, Heeresdienstvorschriften 300/1 (Berlin: E.S. Mittler und Sohn, 1936), 1-5, 10, 15-16; *Fuehrung und Gefecht der verbundenen Waffen, Teil I* (Berlin: Verlag Offene Worte, 1921), 6-9, 21-22, 30; Fiedrich E.EIA. von Cochenhausen, *Die Truppenfuehrung, Teil I: Mittlere und unters Fuehrung*, 6<sup>th</sup> ed. (Berlin: E.S. Mittler und Sohn, 1931), 25-26, 105; and *Die kriegswissenschaftliche Forbidung des Truppenoffiziers* (Berlin: E.S. Mittler und Sohn, 1926), 1-30, 50, 91-97, 153-156. For an extensive treatment of this subject, see John T. Nelsen II, "Where to Go from Here?: Considerations for the Formal Adoption of *Auftragstaktik* by the U.S. Army," a monograph for the School of Advanced Military Studies (Fort Leavenworth, KS, USACGSC, 5 December 1986). See also John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982* (Fort Monroe, VA: USATRADOC, 1984), 58-59, 67, and Tim Lupfer, *The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War*, Leavenworth Papers No. 4 (Fort Leavenworth, KS: Combat Studies Institute, USACGSC, July 1981), 15-21, 41-46.

<sup>30</sup> Mission orders are "A technique for developing orders that emphasizes to subordinates the results to be attained, not how they are to achieve them. It provides maximum freedom of action in determining how to best accomplish assigned missions." FM 3-0

<sup>31</sup> Mission command is currently defined as "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

<sup>32</sup> FMFM 1, *Warfighting*, U.S. Marine Corps, 1989, 8.

<sup>33</sup> 2010 JOE, 12-59.

<sup>34</sup> Cohesion is the moral force that is common to our otherwise diverse human nature, thereby enabling collective action in the face of great adversity and danger. (See, for example, Don Snider, John Nagl, and Tony Pfaff, "Army Professionalism, the Military Ethic, and Officership in the 21<sup>st</sup> Century." Strategic Studies Institute, 1999.) Shattering the enemy's cohesion, thereby reducing his will and ability to fight underpins the central idea of combined arms maneuver in the AOC.

<sup>35</sup> Pederson, Richard, *Mission Command – Transforming C2*, [http://dodccrp.org/events/15th\\_iccrts\\_2010/055.pdf](http://dodccrp.org/events/15th_iccrts_2010/055.pdf), 4.

<sup>36</sup> Americans are uniquely entrepreneurial (See, for example, Hector V. Barretto, "Celebrating American Entrepreneurship," San Fernando Valley Business Journal, 10 May 2010). Mission command nurtures this spirit of entrepreneurship to focus on developing and exploiting advantage rather than a management mindset that seeks to enhance effectiveness and efficiency. Thus, mission command elevates the role of vision, personal will, creativity, initiative, intuition, risk acceptance, and pragmatism over the necessary but more passive managerial controlling, evaluation, and administrative practices. (We are indebted to Colonel (Ret - USMC) Art Corbett for this thought.)

<sup>37</sup> The U.S. Army's and U.S. Marine Corps' warfighting philosophies are codified in FM 3-0 and FMFM 1, respectively.

<sup>38</sup> General J.N. Mattis, 2010 JOE, Foreword.

<sup>39</sup> Chapter 2, *USMC Operating Concepts*, Third Edition, June 2010.

<sup>40</sup> DODD 5100.01, *Functions of the Department of Defense and Its Major Components*.

<sup>41</sup> DOD. The Feb 2010 Quadrennial Defense Review Report (QDR) outlines six key missions for the DOD, 12-15. Those missions are: defend the United States and support civil authorities at home; succeed in counterinsurgency, stability, and counterterrorism operations; build the security capacity of partner states; deter and defeat aggression in antiaccess environments; prevent proliferation and counter weapons of mass destruction; and operate effectively in cyberspace.

<sup>42</sup> AOC, 8.

<sup>43</sup> Uncertainty relates to the lack of predictability, awareness, and understanding of issues and events, and complexity to the multiplex of forces, the confounding of issues and the chaos and confusion that surround an organization. See, for example, The American Heritage® Dictionary of the English Language. Fourth Edition copyright ©2000 by Houghton Mifflin Company. Updated in 2009. Published by Houghton Mifflin Company.

<sup>44</sup> ACC, 9-15; AOC, 10-11.

<sup>45</sup> GEN(R) Gary Luck and COL(R) Michael Findlay have produced an exceptional briefing, titled "Trust and Empowerment," which address this factor of the OE as well as risks associated with centralized approval processes.

<sup>46</sup> Though there are many documents that outline the characteristics of the emerging OE, the ACC provides the most compelling and authoritative explanation as affects future land operations.

<sup>47</sup> See, for example, H.R. McMaster, "Centralization vs. Decentralization: Preparing for and Practicing Mission Command in Counterinsurgency Operations." Thomas Donnelly and Frederick W. Kagan (eds.), *Lessons for A Long War: How America Can Win On New Battlefields*. AEI Press, Washington, DC: 64-71. Also, ACC, 28.

<sup>48</sup> FM 1.

<sup>49</sup> See, for example, Dr. Janine Davidson, "Ending Conflict and Promoting Stability, Patrick M. Cronin (ed.) 2009 *Global Strategic Assessment*, INSS NDU (Washington, DC).

<sup>50</sup> TRADOC Pam 525-7-8.

<sup>51</sup> CG TRADOC memorandum, "Posturing the Army for Cyber, EW, and IO as Dimensions of Full-Spectrum Operations," dated 16 October 2009.



<sup>52</sup> Combat power is “The total means of destructive, constructive, and information capabilities that a military unit/formation can apply at a given time. Army forces generate combat power by converting potential into effective action.” FM 3-0

<sup>53</sup> See, for example, Lerner, J.S., and D. Keltner. (2000) Beyond valence: Toward a model of emotion-specific influences on judgement and choice. "Cognition and Emotion", 14(4), 473–493; Albert Bandura, “Human Agency in Social Cognitive Theory,” in *American Psychologist*, September 1989: 1175-1184; and, Keltner D. & Haidt J. (1999) Social Functions of Emotions at Four Levels of Analysis; *COGNITION AND EMOTION*, 13(5), 505-521.

<sup>54</sup> “Audience” is defined as “1. the group of spectators at a public event; listeners or viewers collectively, as in attendance at a theater or concert. 2. the persons reached by a book, radio or television broadcast. 3. a regular public that manifests interest, support, enthusiasm, or the like. 4. opportunity to be heard; chance to speak to or before a person or group; a hearing. 5. a formal interview with a sovereign, high officer of government, or other high-ranking person. 6. the act of hearing, or attending to, words or sounds.” The various definitions have one thing in common: they portray a passive group of people, which is hardly consistent with the requirement of the future force to gain the support from these disparate actors and publics for the mission.

<sup>55</sup> For a detailed explanation of the cyber/electromagnetic contest, refer to “The Cyber/Electromagnetic Contest White Paper,” v2.1, 1 June 2010, Concept Development Division, Capability Development Integration Directorate, U.S. Army Combined Arms Center, Fort Leavenworth, KS.

<sup>56</sup> Russell L. Ackoff called such situations as ill-structured problems and described them as systems of interacting problems. See *The Art of Problem Solving*. John Wiley & Sons. 1978. Horst Rittel and Melvin Webber built on his work and introduced the term “Wicked Problems,” to describe the dilemmas that unpredictable interactions place on would-be problem solvers. See “Dilemmas in a General Theory of Planning,” reprinted in N. Cross (ed.), *Developments in Design Methodology*. John Wiley & Sons, 1984, 135-44]. Huba Wass de Czege elevated the discussion by addressing the nature of ill-structured situations in the context of commanding military operations in the 21<sup>st</sup> Century. See “Refining the Art and Science of Command for the 21<sup>st</sup> Century” 10 January 2010 draft provided to the author.

<sup>57</sup> FM 5-0, para 2-20, 2-23, 2-46, 3-1, 3-3, and 3-6 to 3-10.

<sup>58</sup> *Ibid.*, chapter 3. FM 5-0 defines “design” as “a methodology for applying critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them.” For the purpose of this functional concept, design is mainly about making sense of difficult-to-understand and continually-evolving situations, enabling commanders and their team to establish a tentative frame of their unique mission problem. Hence, the object of design is to create a contingent logic when none is self-evident, that exploits the potential for change toward an improved state upon which to base a plan of action. Since complex mission situations do not enable precise definitions of end states and change during extended operations, design aims to get things headed in the “right” rather than “wrong” direction while the organization engages its unique operating environment to learn and adapt. Learning produces increased discernment of the situation and drives reformulation of the problem, which in turn drives adaptation.

<sup>59</sup> According to Martin Rein and Donald Schön, a frame is a perspective from which an amorphous, ill-defined problematic situation can be made sense of and acted upon. See “Frame-reflective policy discourse,” in *Social sciences, modern states, national experiences and theoretical crossroads*, ed. Peter Wagner, Carol H. Weiss, Bjorn Wittrock, and Hellmut Wollman (Cambridge: Cambridge University Press, 1991) 263.

<sup>60</sup> See, for example, Malcolm Gladwell’s *Blink: The Power of Thinking Without Thinking* (Little, Brown and Company, New York, NY, 2005) about how the minds of experts work to frame familiar problems.

<sup>61</sup> Russell L. Ackoff called such situations as ill-structured problems and described them as systems of interacting problems. See *The Art of Problem Solving*. John Wiley & Sons. 1978. Horst Rittel and Melvin Webber built on his work and introduced the term “Wicked Problems,” to describe the dilemmas that unpredictable interactions place on would-be problem solvers. See “Dilemmas in a General Theory of Planning,” reprinted in N. Cross (ed.), *Developments in Design Methodology*. John Wiley & Sons, 1984, 135-44]. Huba Wass de Czege elevated the discussion by addressing the nature of ill-structured situations in the context of commanding military operations in the 21<sup>st</sup> Century. See “Refining the Art and Science of Command for the 21<sup>st</sup> Century” 10 January 2010 draft provided to the author.

<sup>62</sup> Scientists tell us inductive reasoning cannot be hurried or sleep deprived. See, for example, Guy Claxton, *Hare Brain, Tortoise Mind: Why Intelligence Increases When You Think Less*. HarperPerennial, USA, 1999.

<sup>63</sup> See, for example, Gary Luck and Michael Findlay, “Joint Distributed Operations: Insights.”

<sup>64</sup> Adapted from the works of Huba Wass de Czege, Russell Ackoff, and Horst Rittel & Marvin Webber.

<sup>65</sup> Command and control is defined as “the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. (DOD Dictionary of Military and Associated Terms)

<sup>66</sup> Replacing command and control with mission command as a warfighting function was directed by CG TRADOC as one of the key changes to the Army’s capstone operations doctrine, FM 3-0. A WFF is a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives. FM 3-0

<sup>67</sup> See, for example, General Martin E. Dempsey, “Failure of Imagination,” Kermit Roosevelt Lecture, Whitehall, England, 25 May 2010.

<sup>68</sup> The variables used to analyze the operational environment are: political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT). FM 3-0

<sup>69</sup> The establishment of the Mission Command CoE was directed by CG TRADOC with an Initial Operating Capability date in July 2010.

<sup>70</sup> For a detailed description of the Mission Command CoE, refer to the Mission Command CoE Concept Paper, v.5.4 draft [12 Feb 2010].

<sup>71</sup> *USMC Operating Concept*, 18.

<sup>72</sup> TRADOC Pam 525-3-1, 15.

<sup>73</sup> The term *dutiful initiative* is used in this concept and in the USMC concept for mission command to advocate the ideas of loyalty and obedience (dutiful) versus the idea of closely-controlled or restricted (disciplined) initiative.

<sup>74</sup> FM 3-0.

<sup>75</sup> Operational art is “knowledge and experience—to design strategies, campaigns, and major operations and organize and employ military forces. Operational art integrates ends, ways, and means across the levels of war. JP 3-0. Operational art is discussed extensively in chapter 5 and the art of tactics is explained in chapter 4, FM 3-0.

<sup>76</sup> Van Creveld, 268, and *USMC Operating Concept*, 18.

<sup>77</sup> See, for example, Colonel H.R. McMaster’s Memorandum “Agility (OIF Spot Report Number 1),” 8 July 2005.

<sup>78</sup> ACC, AOC, and *USMC Operating Concept*.

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- <sup>79</sup> Odierno, R. Brooks, N., & Mastracchis, F. (2008, 3<sup>rd</sup> Quarter). "ISR Evolution in the Iraqi Theater," *Joint Forces Quarterly* 50 (55). Retrieved from [http://www.ndu.edu/inss/Press/jfq\\_pages/editions/i50/14.pdf](http://www.ndu.edu/inss/Press/jfq_pages/editions/i50/14.pdf)
- <sup>80</sup> General Martin E. Dempsey, "The Failure of Imagination."
- <sup>81</sup> ACC, AOC, and *USMC Operating Concept*.
- <sup>82</sup> FM 3-0, para 3-6.
- <sup>83</sup> Battle drills are trained responses to enemy actions or leader's orders that are executed rapidly without the need to apply a deliberate decisionmaking process. FM 25-101
- <sup>84</sup> Luck and Findlay; Odierno, et al., *USMC Operating Concept*, 25.
- <sup>85</sup> Pederson, *Mission Command-Transforming C2*, [http://dodccrp.org/events/15th\\_iccrts\\_2010/papers/055.pdf](http://dodccrp.org/events/15th_iccrts_2010/papers/055.pdf), 4.
- <sup>86</sup> Pederson, Richard, *Institutionalizing 'Organizational Learning' while Operating*, *Army Magazine*, September 2009, 22.
- <sup>87</sup> Gary Luck and Mike Findlay, *Joint Distributed Operations: Insights*, 3.
- <sup>88</sup> ACC, 29.
- <sup>89</sup> FCIE discussions, July 2010.
- <sup>90</sup> The Intelligence warfighting function draws from the nine intelligence disciplines to develop the adversary situation and operational environment for the commander and to provide frequent updates based on the commander's short- and long-term information requirements. Hence, intelligence is engaged prior to the commencement of hostilities, often well before a warning order is transmitted.
- <sup>91</sup> Pederson, *Mission Command-Transforming C2*, [http://dodccrp.org/events/15th\\_iccrts\\_2010/papers/055.pdf](http://dodccrp.org/events/15th_iccrts_2010/papers/055.pdf), 8.
- <sup>92</sup> This is consistent with recent developments in the Army Leader Development Strategy, which judged that "our preparation of leaders to operate in this [uncertain and complex] environment and to lead these decentralized organizations has not kept pace." Army leader, 5.
- <sup>93</sup> See, for example, "Negotiating a path from battlefield to boardroom," *Financial Times*, April 11, 2010.
- <sup>94</sup> PMESII-PT is the acronym for the variables used to describe the operational environment: political, military, economic, social, information, infrastructure, physical environment, and time.
- <sup>95</sup> Formerly psychological operations.
- <sup>96</sup> For details, refer to "The Cyber/Electromagnetic Contest White Paper," v2.1, 1 June 2010, Concept Development Division, Capability Development Integration Directorate, U.S. Army Combined Arms Center, Fort Leavenworth, KS.
- <sup>97</sup> AOC, 22-23.
- <sup>98</sup> *Ibid.*, 23-25.
- <sup>99</sup> TRADOC Pam 525-2-1 23-25.
- <sup>100</sup> See *Force Design/Force Mix Briefing*, 4 August 2010, Combined Arms Doctrine Directorate.
- <sup>101</sup> TRADOC Pam 525-3-6, 6-7.
- <sup>102</sup> TRADOC Pam 525-7-8, 41.