The U.S. Army in Multi-Domain Operations

2028
The current strategic environment is typified by a state of continuous competition by Great Powers – notably China and Russia.

Problem: China and Russia pose three challenges:
- Challenge in all domains (tactical)
- Employ multiple layers of Stand-off (operational)
- Leverage competition space (strategic) to achieve operational and strategic objectives

Solution: The U.S. Army in Multi-Domain Operations 2028 concept describes how the Army will reconcile these challenges:
- compete below threshold of armed conflict
- penetrate and dis-integrate enemy stand-off
- exploit the resultant freedom of maneuver
- return to competition on favorable terms
Identifies four interrelated trends that shape the future Operational Environment:

- Contested in all domains
- Increasingly lethal and hyperactive battlefield
- Leverage Competition Space
- Multiple Layers of Standoff

Diluted deterrence
Focuses on near-peer threat (China and Russia) and aligns with NSS/NDS:

- Provides conceptual solution to near-peers’ operational approaches
- Uses Russia as the tactical/technological pacing threat
- Requires further analysis to address tactical and technical applicability of China
- Accounts for proliferation of anti-access and area denial concepts and capabilities to non-state actors (Iran, North Korea, VEO)

Enables and allows for “scoping” to a lesser threat

The MDO concept assumes...Chinese and Russia concepts and force development are sufficiently similar for the Army to solve the problems presented by Russia in the near/mid-term and adapt to the changes China develops mid/far-term.

-TRADOC Pam 525-3-1, pg. 6
The Problem: “Stand-off”

- **Political separation** that creates strategic ambiguity among the U.S. and its partners in competition and reduces speed of recognition, decision, and reaction.
- **Physical separation** of the Joint Force in time and space.
- **Functional separation** of the Joint Force in capability.

Combined Arms Armies employ organic long-, mid-, and short-range systems to create operational and tactical stand-off that requires attacking functions rather than formations.
Threats Create “Stand-off”

Threat seeks to separate friendly forces politically by fracturing alliances and partnerships through the integration of:

- Diplomatic and economic actions
- Unconventional warfare
- Information warfare
- Conventional forces

Threat creates stand-off by reducing speed of recognition, decision, and reaction

Designed to capitalize on the predictability of the Joint Force, partners and allies
Multi-Domain Operations Defeat “Stand-Off”

Compete
Penetrate
Dis-Integrate
Exploit
Return to Competition
Central Idea

**Army forces, as an element of the Joint Force, conduct Multi-Domain Operations to prevail in competition; when necessary, Army forces penetrate and dis-integrate enemy anti-access and area denial systems and exploit the resultant freedom of maneuver to achieve strategic objectives (win) and force a return to competition on favorable terms.**

**Current Options**

- **Do nothing** and concede competitor actions and readjust strategic objectives
- **Win a protracted conflict** by regaining the operational initiative and defeating enemy forces

**MDO Capable Force 2028/2035 Options**

- **Do nothing** and concede competitor actions and readjust strategic objectives
- **Expand the competitive space** on favorable terms to deter enemy aggression (*preferred method*)
- **Respond quickly** to deny a *fait accompli* attack and achieve an operational position of advantage
- **Win a protracted conflict** by regaining the operational initiative and defeating enemy forces
Tenets of Multi-Domain Operations

Executing MDO requires changing how the Army: postures the force physically with increased authorities; organizes its formations; and employs its new capabilities and emerging technologies.

Calibrated Force Posture
- Forward Presence Forces
- Expeditionary Capacity
- National-Level Capabilities
- Authorities

Multi-Domain Formations
- Conduct Independent Maneuver
- Employ Cross-Domain Fires
- Maximize Human Potential
- Echelons Above Brigade Formations

Convergence
- Cross-Domain Synergy
- Redundant Kill Chains
- Mission Command
- Any Sensor...
- Any Shooter...
- Any C2 Node...
- In near-real time.

The rapid and continuous integration of capabilities in all domains through:

Compete
Penetrate
Dis-Integrate
Exploit
Re-Compete
Multi-domain operations today rely on episodic synchronization ... executing capabilities after days and weeks of synchronization ... in future operations against a peer threat it will require rapid and continuous integration ... integrating capabilities within hours.
Multi-Domain Operations Solution

Multi-Layered Stand-off

**Competition**
- Create political separation
- Economic levers
- Unconventional warfare
- Information operations
- Conventional forces

**Armed Conflict**
- Separate the Joint Force in time, space and function
  - Long-range fires
  - Unconventional warfare
  - Ground-based air defense systems
  - Electronic warfare, space, and cyber

---

**UNCLASSIFIED**

- Enable defeat of information and unconventional warfare
- Conduct operational prep of the environment & counter adversary recon
- Demonstrate credible deterrent

**Diplomatic**

**Economic**

**Information Warfare**
- Unconventional Warfare
- Hybrid Warfare / Gray-Zone

**Penetrate**
- Penetrate and begin neutralizing enemy long-range air defense
- Neutralize and dis-integrate key elements of long-range fires
- Contest enemy maneuver forces
- Maneuver from operational and strategic distances

**Dis-Integrate**
- Complete dis-integration of long-range air defense
- Exploit dis-integration of long-range fires
- Neutralize mid-range fires
- Conduct independent operational maneuver
- Conduct deception

**Conventional Forces**
- SRBMs, Mid-Range SAMs, Long-Range Multiple Rocket Launchers
- Multiple Rocket Launchers, Cannon Artillery
- Maneuver, Short-Range Air Defense, Electronic Warfare, Counter-PNT, Cyber

---

**Compete**

**Penetrate**

**Dis-Integrate**

**Exploit**

**Re-Compete**
## AirLand Battle and Multi-Domain Operations: What are the Differences?

<table>
<thead>
<tr>
<th>Element</th>
<th>AirLand Battle</th>
<th>Multi-Domain Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Environment</td>
<td>Single Pacing Threat (Soviet Union)</td>
<td>Multiple Threats across the OE with similar operation approaches (near-peers)</td>
</tr>
<tr>
<td>Focus</td>
<td>Formations (Second Echelon)</td>
<td>Systems (Anti-Access and Area Denial Systems)</td>
</tr>
<tr>
<td>Operational Context</td>
<td>Forward postured force in prepared defense</td>
<td>CONUS-based force executing offensive action through strategic and operational maneuver</td>
</tr>
<tr>
<td>Central Idea</td>
<td>Engage throughout the depth of the battlefield; defeat the Second Echelon</td>
<td>Compete in all domains; when necessary, penetrate and dis-integrate enemy anti-access and area denial systems and exploit the resultant freedom of maneuver to achieve strategic objectives (win) and force a return to competition</td>
</tr>
<tr>
<td>Domains</td>
<td>Land, Air (synchronization)</td>
<td>Land, Air, Maritime, Space, Cyber (synergy)</td>
</tr>
<tr>
<td>Echelon</td>
<td>Corps/Division and below</td>
<td>Inter-Agency, Theater and below</td>
</tr>
<tr>
<td>Phases</td>
<td>Phased operations in armed conflict</td>
<td>Across competition continuum</td>
</tr>
<tr>
<td>Concept</td>
<td>Diagram</td>
<td>Diagram</td>
</tr>
</tbody>
</table>
A BDP is an ongoing analytical effort with a regularly updated document that:

- Operationalizes Multi-Domain operations in ways that can be modeled and tested.
- Conveys, in specific actionable detail, how future threat and friendly forces operate within an approved scenario in order to develop a series of “plays.”¹
- Provides a net assessment² that guides prioritization of challenges and opportunities for future force concept and capability development.

Each BDP consists of three books:

- Book 1: Threat Formations and Systems – “Red Forces”
- Book 2: Capability Sets – “Blue Forces”
- Book 3: Plays – “Blue vs Red”

¹. Plays – Multi-domain force packages and capability employment options that achieve specific effects
². Net assessment – A multidisciplinary assessment process used to provide a comparative evaluation of the balance of strengths and weaknesses
MDO/BDP linkages to Army & Joint Experiments

**MDO Baseline**
- MDO v1.5
- BDP-R (FY19)

**BDP-C**
- Scenario
- Geometry & Geography
- Red & Blue OOB
- CJTF Structure
- Drive Chart
- CAPSETS

**AFC Capstone WG FY19**
- Scenario
- Geometry & Geography
- Red & Blue OOB
- CJTF Structure
- Drive Chart
- CAPSETS

**Theater Posture Seminar**
- ISR-Strike TTX

**Joint Experimentation Series A**
- Theories of Victory & Ways
- Theories of Victory CONEMPs
- Joint Concept & Capstone Framework
- Investment Decisions

**Joint Experimentation Series B**
- JFOS Scenarios
- JFOS Experimentation

**Joint Experimentation Series C**
- GIW Scenario
- Service CONOPS
- GIW 20-1
- GIW 20-2

**Joint Experimentation Series D**
- JADC2 CONOPS
- JADC2 Architecture
- JADC2 Experiments

**Joint Field Experiments**
- JWA 20
- Defender 20
- JWA 21

**Functional Concepts & O&Os**
- CMD & Support Relationships
- MD Control Measures
- Architecture
- Data Flows / AI Threads

**Integration Assessment (Running Estimate)**
- FY20 Proponent Level Experiments

**BDP-R (FY19)**
- BDP-C
  - Detailed threat analysis
  - Play CONOPS
  - Relative Combat Power Analysis
  - Layered Options

**BDP-C**
- Concept of Sustainment
- Concept of Support
- Capacity Analysis
- Force Posture Analysis
- Force Package Analysis

**C2 TTX**
- Sustain & Protect TTX

**IS-Strike TTX**
- ISR-Strike TTX

**Outputs**
- BDP-R (FY20) Update
- BDP-C (FY20) Published
- Refined MDO Concept
- Force Design Updates (TAA)
- Joint ADC2 CONOPS
- Joint Concepts
Learning Facilitator’s Guide
Learning Facilitator’s Guide

Purpose: To enable effective learning that leads to MDO Concept Expertise

Presuppositions:
1. None of us is as smart as all of us (Blanchard, 2001).
2. A concept is an idea that requires continuous physical, virtual, and cognitive examination.
3. An operating concept is aspirational based on leadership vision.
4. There is no absolute truth in an operating concept; the best practitioners understand how the components can work together through active discussion.
5. Active discussion is about everyone sharing ideas; not demonstrating intellectual superiority.
6. When active discussion fails, revert to presuppositions #1-4.

Starting Point: TP 525-3-1 is the published Army Operating Concept (AOC). Learning the AOC presupposes that the learner has read it and agrees to approach MDO Concept Expertise learning by accepting the presuppositions.

Reference
Learning Curriculum: Enables learning through Understanding TP 525-3-1 using Socratic approach of asking questions to achieve small group active discussions

Overview: Understanding the MDO Concept - Learning Curriculum:

- Modules 1-5
  - 1 – Explain the future OE with respect to near-peer capabilities
  - 2 – Explain Stand-Off
  - 3 – Explain the five multi-domain (operational) problems
  - 4 – Describe how the three tenets address each of the multi-domain (operational) problems
  - 5 – Explain the 14 required capabilities and their relationship to the MDO framework and the tenets

- Module 6 Overview (unclassified version presented in plenary)
  - 6 – Describe the purpose and utilization of the battlefield development plan (BDP) with respect to analysis and experimentation of the MDO Concept

- Discuss level of learning required to address questions in each of the modules
- Discuss what other critical thinking (supplementary) questions might aid in achieving the module competency
- Uses reference library documents to support active discussions
Learning Facilitator’s Guide

Learner Facilitator’s role: To enable effective learning that leads to TP 525-3-1 understanding by complying with these activities in the small group:
- Explains how each module enables learning within a small group environment
- Explains the specific module’s learning objectives for the participants
- Facilitates discussion that addresses the required questions, as time allows, discusses Supplementary Questions.

<table>
<thead>
<tr>
<th>Module title and level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each module is a competency or skill to achieve for module</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Steps to complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard approach for every module</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reading Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapter 2 and Appendix A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Video Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Aid: Figure 2-1. MDO framework and Figure 2-2. China and Russia in competition and armed conflict</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module title &amp; description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short explanation of the desired learning objective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each question provides the basis for an active discussion period. The question must be directly addressed to receive credit. Avoid going down “rabbit holes,” though discussion about how one might be diverted based on confusion or doubt is appropriately noteworthy. There are Module Questions required to be discussed; Responses to Supplemental Questions can be discussed as time allows.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment Rubric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic achievable outcomes. If facilitator adds criterion, this must be provided at the start of the module.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 1 (Basic) Explain the Future OE with respect to near-peer capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steps to Complete the Module:</td>
</tr>
<tr>
<td>1. Complete required reading</td>
</tr>
<tr>
<td>2. View Video</td>
</tr>
<tr>
<td>3. Address the questions via active discussions in a group setting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reading Requirement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapter 2 and Appendix A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Video Requirement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Aid: Figure 2-1. MDO framework and Figure 2-2. China and Russia in competition and armed conflict</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 1 Questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. How does TP 525-3-1 address the challenges by states and near-peer adversaries to contest international norms across the MDO framework?</td>
</tr>
<tr>
<td>II. In what ways are near-peer adversaries using the different domains across the MDO framework?</td>
</tr>
<tr>
<td>III. How might the Baseline and Fundamental Assumptions be used/taken advantage of by near-peer adversaries to create the conditions that provoke escalation to armed conflict against US partners across the globe?</td>
</tr>
<tr>
<td>IV. What are ways in which US forces, adhering to the Baseline and Fundamental Assumptions, might create and maintain conditions to ensure near-peer adversaries remain in competition?</td>
</tr>
<tr>
<td>V. How can the description of the future OE, as published in TP 525-3-1, be improved upon in order to clarify the importance of preparing for the potential of future armed conflict?</td>
</tr>
</tbody>
</table>

<p>| Assessment Rubric: used primarily for self-assessment |</p>
<table>
<thead>
<tr>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP-525-3-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible in using conceptual and non-conceptual verbiage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendix A into discussions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UNDERSTANDING THE MULTI-DOMAIN OPERATIONS CONCEPT

LEARNING CURRICULUM

(Two-Day Course)

Operationalizing the Future through Learning

30 September 2019

UNITED STATES ARMY
Directorate of Concepts, Futures and Concepts Center, Army Futures Command
Executive Summary

Expertise on the Multi-Domain Operations (MDO) Concept is achieved through a learning approach that attains common understanding of and thorough familiarity with U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-3-1 (TP 525-3-1), *The U.S. Army in Multi-Domain Operations, 2028*. While commonly referred to as the MDO Concept, TP 525-3-1 is the Army Operating Concept and thus the foundational concept document for the future Army. The “Understanding the MDO Concept” learning curriculum emphasizes an adult learning approach through autonomous learning using available and researched material in order to understand, analyze, and apply the components of TP 525-3-1, the MDO Concept. By being prompted to address focused questions that enhance active inquiry and discussion about individual MDO Concept components, as well as the relationships among these components, the professional discovers insights based on what is published and available as references. What emerges through the Socratic approach is the competence to operationalize the components of the MDO Concept. Concept developers have found through best practices that active discussion about the relationship among the MDO Concept components enhances critical thinking. This approach develops hypotheses that, upon further examination through experimentation, result in insights and findings that better clarify how to achieve the Army Modernization Strategy’s objectives to develop an MDO-Capable Force by 2028 and an MDO-Ready Force by 2035.

This learning curriculum supports a two-day unclassified course design based on small groups enabled by facilitators. This document includes facilitator training requirements.
Understanding the Multi-Domain Operations Concept – Learning Curriculum

Foreword

*President John F. Kennedy, while visiting NASA for the first time in 1961, met a janitor and asked, “Sir, now what do you do at NASA?” to which the gentleman answered, “I’m helping put a man to the moon!”*

We are on a path to “change the world.” We have the greatest opportunity to influence the design of our future Army through our actions in the next several fiscal years. None of us is as smart as all of us, and because the MDO Concept is as necessary as it is complex, it is imperative that we each take professional ownership in understanding how we expect our Army to fight. We cannot afford to conduct business as usual because the window to influence the relevant future is rapidly closing. To understand our Army’s vision for 2028, as the janitor at NASA did in his organization, we are each charged to thoroughly understand our Army Operating Concept, the Multi-Domain Operations Concept.

Completing this “Understanding the MDO Concept” learning curriculum in order to achieve MDO Concept expertise is your first step to developing the confidence and competence needed to remain on the path to change the world.

ERIC J. WESLEY
Lieutenant General, U.S. Army
Director, Future and Concepts Center
Introduction

The U.S. Army Operating Concept (AOC) is the Multi-Domain Operations (MDO) Concept. It was published on 6 December 2018 as U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-3-1 (TP 525-3-1), *The U.S. Army in Multi-Domain Operations, 2028*. Given the focus of the current Army Modernization Strategy to achieve an MDO-Capable Force by 2028 and an MDO-Ready Force by 2035, the Army Futures Command (AFC) requires both a creative and an efficient approach across the Army Modernization Enterprise (AME) to foster a thorough understanding of the contents of TP 525-3-1 in order to apply the foundational components of the MDO Concept when developing doctrinal, organizational, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P) solutions to address the multi-domain operational problems. Understanding the MDO Concept also improves competency in internal and strategic communications.

Effective learning is about discovery followed by demonstration. The "Understanding the MDO Concept" learning curriculum presents questions to help the professional discover answers based on what is published and available as references, leading to developing approaches to operationalize MDO. Concept developers have found that addressing these questions to be most effective when preparing for presentations for a variety of audiences, when preparing to analyze data from a variety of experimentation events, and when preparing to examine possible DOTMLPF-P solutions to resolve the multi-domain problems.

There is no cookie-cutter approach to achieving a full understanding of the MDO Concept. This learning curriculum fosters understanding through active discussions of critical questions. The first five modules cover the foundational components found in TP 525-3-1. The next three modules develop knowledge and skills to operationalize the components of the MDO Concept and enable the professional to answer relevancy (“So what?”) questions about the concept. The last two modules exercise skills that enable the professional to present the standard MDO Concept briefing.

The course design supports a two-day training course, and the course material included in this learning curriculum is unclassified. Visual aids and briefing charts are critical training resources, and prerequisite reading of TP 525-3-1 is mandatory. Small groups supported by facilitators are the foundation for active participation and discussion, and training material for facilitator preparation is included in this learning curriculum document.
# Understanding the Multi-Domain Operations Concept – Learning Curriculum

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>Foreword</td>
<td>2</td>
</tr>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Learning Curriculum – Understanding TP 525-3-1</td>
<td>5</td>
</tr>
<tr>
<td>Understanding TP 525-3-1 Overview</td>
<td>6</td>
</tr>
<tr>
<td>Implementation Guide</td>
<td>7</td>
</tr>
<tr>
<td><strong>Module 1:</strong> Explain the future operational environment with respect to near-peer capabilities</td>
<td>8</td>
</tr>
<tr>
<td><strong>Module 2:</strong> Explain stand-off</td>
<td>10</td>
</tr>
<tr>
<td><strong>Module 3:</strong> Explain the five multi-domain (operational) problems</td>
<td>12</td>
</tr>
<tr>
<td><strong>Module 4:</strong> Describe how the three tenets address each of the multi-domain (operational) problems</td>
<td>14</td>
</tr>
<tr>
<td><strong>Module 5:</strong> Explain the 14 required capabilities and their relationship to the MDO framework and the tenets</td>
<td>16</td>
</tr>
<tr>
<td><strong>Module 6:</strong> Describe the purpose and utilization of the Battlefield Development Plan (BDP) with respect to the analysis and experimentation of the MDO Concept</td>
<td>18</td>
</tr>
<tr>
<td><strong>Module 7:</strong> Explain Army functional considerations in supporting the MDO solution across the MDO framework</td>
<td>20</td>
</tr>
<tr>
<td><strong>Module 8:</strong> Explain the influences of elements of DIME (Diplomatic, Information, Military, and Economic) and their PMESII (Political, Military, Economic, Social, Information, and Infrastructure) effects on the tenets of the MDO Concept</td>
<td>22</td>
</tr>
<tr>
<td><strong>Module 9:</strong> Create and brief a presentation that describes the Army functional considerations in supporting the MDO solution across the MDO framework</td>
<td>23</td>
</tr>
<tr>
<td><strong>Module 10:</strong> Create and brief a presentation that describes the requirement for the whole of government application of elements of DIME (Diplomatic, Information, Military, and Economic) and their PMESII (Political, Military, Economic, Social, Information, and Infrastructure) effects on the tenets of the MDO Concept</td>
<td>24</td>
</tr>
<tr>
<td><strong>Appendices</strong></td>
<td></td>
</tr>
<tr>
<td>A. MDO Concept Briefing</td>
<td>26</td>
</tr>
<tr>
<td>B. Small Group Facilitator Training Slide Deck</td>
<td>38</td>
</tr>
</tbody>
</table>
LEARNING CURRICULUM

Understanding TP 525-3-1 (MDO Concept)
to
Demonstrate Multi-Domain Operations (MDO) Concept Expertise

This learning curriculum is prepared by the

Directorate of Concepts
Futures and Concepts Center
Army Futures Command
Fort Eustis, Virginia

Directorate of Concepts (DoC)
Director (Acting): COL William Chlebowski
Deputy Director:  Mr. Henry Franke

Curriculum Development:
LTC Andrew Forney, Ph.D., Joint and Army Concepts Division, DoC
MAJ Kyle Hatzinger, Joint and Army Concepts Division, DoC
David N. Farrell, MDO Analyst, Joint and Army Concepts Division, DoC
Leslie F. Kayanan, Ph.D., Lead Analyst, DoC

Contact Information:
NIPRNet e-mail: leslie.f.kayanan.ctr@mail.mil
Office phone: (757) 501-5245

Required Reading:
TRADOC Pamphlet (TP) 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028

Strongly Suggested Reading:
National Defense Strategy
Army Modernization Strategy
Army Doctrine Publication (ADP) 3-0, Operations, October 2017

All references in Appendix G, sections I and II, in TP 525-3-1
Videos: as available or presented in each module
**Understanding the Multi-Domain Operations Concept – Learning Curriculum**

**Understanding TP 525-3-1 Overview**

**Learning Purpose:** The purpose of this “Understanding the MDO Concept” curriculum is for the professional to develop the overall competency of *Multi-Domain Operations (MDO) Concept Expertise*. Achieving this competency reflects the professional’s knowledge, skills, and abilities to present the basic premises on how U.S. Army forces, as part of the Joint Force, will militarily compete, penetrate, dis-integrate, exploit, and re-compete with our adversaries in a future operational environment (OE).

**Learning Description:** *This learning curriculum does not ascribe to perfunctory learning.* This TP 525-3-1 Understanding curriculum provides a logical series of learning modules that enable the professional to demonstrate levels of expertise in the content of TP 525-3-1, *The U.S. Army in Multi-Domain Operations, 2028*. MDO Concept Expertise is achieved by completing each of the modules in sequence by studying the text material and answering the module questions. To enhance learning in a group setting, each of the 10 modules include questions that guide critical thinking and active discussion. Active discussion is intentional as the primary learning approach to be confident and competent in understanding, analyzing, evaluating and then creating understanding to others when presenting the U.S. Army Operating Concept (AOC).

**Learning Preparation and Delivery:** Professionals must read TP 525-3-1 prior to engaging in small group discussions. This curriculum is intended for self-preparation followed by facilitated small group discussion sessions in which groups of five or six are lead through each module. The facilitator’s role is to manage the time, discussion framework and focus, and the opportunity for each participant to address each question.

**Understanding TP 525-3-1 Learning Objectives:** Upon completion of this “Understanding the MDO Concept” learning curriculum, each professional will have developed the necessary skills and knowledge required to:

1. Review, interpret, and critique TP 525-3-1, *The U.S. Army in Multi-Domain Operations, 2028*;

2. Assist others in understanding the components of the MDO Concept;

3. Identify and discriminate between the variety of perspectives brought by professionals at different levels of experience, knowledge, and exposure to how the U.S. Army currently operates and how the U.S. Army intends to operate in the future;

4. Assist in the analysis and/or application of the MDO Concept components across the width and depth of experimentation efforts that influence the Army Modernization Strategy; and

5. Develop a strategy, protocol, and thought process when presenting aspects of the MDO Concept to a variety of audiences.
Course Activities and Assignments: The learning curriculum is organized into 10 modules. Each module provides Steps to Complete the Module with specific reading requirements, visual aids, required questions to address, and an assessment rubric to guide one’s progress.

Each module’s questions assist in learning what is written in TP 525-3-1. More importantly, the questions require the professional to exercise critical thinking about the components of the MDO Concept. By design, the questions intentionally challenge the professional to do more than simply read in order to understand the components within TP 525-3-1. The professional, through understanding, applying, analyzing, evaluating, and creating meaning of the MDO Concept components fashioned by these questions, learns in order to better analyze, apply, and explain the components of the MDO Concept.

Planning: 6 weeks prior to scheduled “Understanding the MDO Concept” training
Receive nominations for participants
Schedule auditorium and small group discussion rooms
Small group discussion rooms: 5-6 participants and 1-2 facilitators*

Preparation: 3 weeks prior to scheduled “Understanding the MDO Concept” training
Provide read ahead packets to participants
Read Ahead: “Understanding the MDO Concept” Learning Curriculum; Cross-reference Spreadsheet; MDO Concept Briefing v7, 20 May 2019; Frequently Asked Questions (FAQs)
Select and Train Facilitators*

Execution: Scheduled for 2 days
Day 1
0800-0945: (Plenary) Welcome, Opening Remarks, Schedule Overview, MDO Concept Video, MDO Concept Presentation (MDO Concept Briefing v7, 20 May 2019)
1000-1700: (Small Groups) Modules 1-5

Day 2
0800-0900: (Plenary) Battlefield Development Plan (BDP) Overview, Module 6
0900-1400: (Small Groups) Modules 7-10
1400-1600: (Plenary) Modules 9 and 10 Presentations**
1600-1700: (Plenary) After action review (AAR)

* Facilitator Selection and Training. Facilitators for small group discussion are selected with sufficient time for each to understand their roles and responsibilities before small group facilitation training occurs. One critical requirement is that each selected facilitator must have read TP 525-3-1 before facilitator training begins, and the selectee completes the small group facilitator training prior to facilitating small group discussions. See Appendix B.

** Presentations may be done individually by each member in a small group or collectively by each small group with members briefing different parts of the MDO Concept Briefing. If the latter occurs, each small group member briefs an additional slide that explains the application of his or her respective functional or expertise area to the MDO Concept.
Module 1

*Explain the future operational environment (OE) with respect to near-peer capabilities*

**Steps to Complete the Module:**

I. Complete required reading and watch video
II. Support explanation of visual aids using specific sections in required reading
III. Address the questions via active discussions in a group setting

**Reading Requirement:**

TP 525-3-1 (6 December 2018). *The U.S. Army in Multi-Domain Operations, 2028.* Chapter 2 and Appendix A.

**Video Requirement:** *Multi-Domain Operations, Overview*

**Visual Aids:** TP 525-3-1, Figure 2-1, *MDO framework*, and MDO Concept briefing, slides #3 and #4;

**Slide #3: Operational Environment**

- Identifies four interrelated trends that shape the future Operational Environment
  - Contested in all domains
  - Increasingly lethal and hyperactive battlefield
  - Leverage Competition Space
  - Multiple Layers of Standoff

**Slide #4: Threat Focus: China and Russia**

- Focuses on near-peer threat (China and Russia) and aligns with NSS/NDS:
  - Provides conceptual solution to near-peers’ operational approaches
  - Uses Russia as the tactical/technological pacing threat
  - Requires further analysis to address tactical and technical applicability of China
  - Accounts for proliferation of anti-access and area denial concepts and capabilities to non-state actors (Iran, North Korea, VEO)
  - Enables and allows for “scoping” to a lesser threat

**Competency Module 1:** *Explain the future OE with respect to near-peer capabilities – use visual aids*

Description of the module’s learning objective: The professional describes the future operational environment while facing a future near-peer adversary whose technological advancements challenge the national security of the U.S. and its allies. Using visual aids, explains how the interrelated trends shape the future OE, how the future OE influences the trends, and describes how the multiple threat foci align with the National Security Strategy (NSS) and the National Defense Strategy (NDS).

**Module 1 Questions:**

1. How do our near-peer adversaries operate across the domains to contest international norms? What are some facts and assumptions related to these acts?
2. In what ways are near-peer adversaries using the different domains across the MDO framework?
3. How might the U.S operate across the domains to prevail over our adversaries in competition in order to create conditions favorable to the U.S. and its partners?
Supplemental Questions:
1. Based on your functional expertise, how can the description of the future OE, as published in TP 525-3-1, be improved upon in order to clarify the importance of competition and preparing for the potential of armed conflict?
2. How does TP 525-3-1 address the challenges by states and near-peer adversaries to contest international norms across the MDO framework?
3. How might the Baseline and Fundamental Assumptions be used/taken advantage of by near-peer adversaries to create the conditions that provoke escalation to armed conflict against U.S. partners across the globe?
4. What are ways in which U.S. forces, adhering to the Baseline and Fundamental Assumptions, might create and maintain conditions to ensure near-peer adversaries remain in competition?

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th></th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP-525-3-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when describing near-peer threat.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendix A into discussions of adversaries.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

Module 2
Explain stand-off

Steps to Complete the Module:
I. Complete required reading and watch the video
II. Support explanation of visual aids using specific sections in the required reading
III. Address the questions via active discussions in a group setting

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapters 2 and 3 and Appendix C.

Video Requirement: Multi-Domain Operations, Overview

Visual Aids: TP 525-3-1, Figure 2-1, MDO framework, Figure 2-3, Adversary’s layered stand-off; Figure 3-2, Converging capabilities to generate cross-domain synergy and layered options; MDO Concept briefing, slides #5 and #6

Slide #5: The Problem: “Stand-off”
Slide #6: Threats Create “Stand-off”

Competency Module 2: Explain stand-off – use visual aids
Description of the module’s learning objective: The professional describes the concept of stand-off across the physical, virtual, and/or cognitive dimensions. Using visual aids, explains the layered challenges adversaries present during competition and armed conflict, and explains how U.S. forces must take advantages of adversaries’ systemic vulnerabilities and weaknesses.

Module 2 Questions:
1. How does the adversaries’ layered stand-off, as explained in chapter 2 and depicted in slides #5 and #6, present the ground commander with both challenges and opportunities to disrupt and defeat a near-peer adversary?
2. Explain stand-off at the tactical, operational, and/or strategic levels.
3. How is defeating Russia’s stand-off potentially achieved in competition by using the adversary’s systemic vulnerabilities and dependencies within the MDO framework as depicted in TP 525-3-1, Figure 2-1 and described in Appendix C?
Supplemental Questions:

1. How is defeating Russia’s stand-off potentially achieved in armed conflict, and return to conflict by using the adversary’s systemic vulnerabilities and dependencies within the MDO framework as depicted in TP 525-3-1, Figure 2-1 and described in Appendix C?

2. How can focusing alone on stand-off against near-peer adversaries be both strengths and weaknesses when addressing stand-off against other threats in the future OE?

3. What are the considerations for effective convergence as depicted in TP 525-3-1, Figure 3-2 and described in paragraph 3-3.d. that Army forces need to address at echelon during competition, armed conflict, and the return to competition in order for commanders to create and exploit windows of superiority that are either or a combination of physical (e.g., usage rates), virtual (e.g., temporal), or cognitive (e.g., planning) dimensional capabilities in order to achieve stand-off?

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th></th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when describing Stand-off.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when describing capabilities used when applying convergence during competition or armed conflict against adversary’s vulnerabilities and to impose complexity on enemy’s command and control systems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendix C into discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

Module 3

Explain the five multi-domain (operational) problems

Steps to Complete the Module:
I. Complete required reading
II. Support explanation of visual aids using specific sections in the required reading
III. Address the questions via active discussions in a group setting

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapters 2 and 3; Appendices C and D.

Visual Aids: TP 525-3-1, Figure 3-1, Problems superimposed on the MDO framework; MDO Concept Briefing, slides #7 and #8

Slide #7: Multi-Domain Operations Defeats “Stand-Off”
Slide #8: Central Idea

Competency Module 3: Explain the five multi-domain (operational) problems

Description of the module’s learning objective: The professional describes the five multi-domain (operational) problems with emphasis on how Army forces, as part of the Joint Force, help to achieve overall strategic objectives. Using visual aids, explains each of the five multi-domain (operational) problems that span the MDO framework, explaining how each of the five multi-domain (operational) problems can exist simultaneously across different areas, and how the Army, in executing its four enduring strategic roles (prevent conflict; shape the security environment; prevail in large-scale combat operations; and consolidate gains) help achieve U.S. strategic objectives articulated in the National Defense Strategy.

Module 3 Questions:
1. How must the Joint Force, as depicted in TP 525-3-1, Figure 3-1, address the five multi-domain (operational) problems across the MDO framework?
2. How do Army forces, as an element of the Joint Force and in its four enduring strategic roles, address the five operational problems at echelon in order to achieve positions of advantage that defeat the enemy through maneuver?
Supplemental Questions:
1. How would information environment operations (IEO), synchronized with information-related capabilities (IRC) in concert with operations and fully integrated into the planning and execution of joint targeting process, directly support opening and exploiting windows of superiority during competition and when returning to competition after armed conflict?
2. How would IEO, synchronized with the IRCs in concert with operations and fully integrated into the planning and execution of joint targeting process, need to directly support and exploit windows of superiority during armed conflict?
3. What are the considerations the Joint Force must apply when planning MDO in dense urban terrain (DUT) with respect to the effects of the characteristics of DUT when addressing the five operational problems?

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th></th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when explaining the five multi-domain (operational) problems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendices C and D into discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Module 4

Describe how the three tenets address each of the multi-domain (operational) problems

Steps to Complete the Module:
I. Complete required reading
II. Support explanation of visual aids using specific sections in the required reading
III. Address the questions via active discussions in a group setting

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapters 2 and 3; Appendix D.

Visual Aids: TP 525-3-1, Figure 3-4, Competition, and Figure 3-5, Penetrate and dis-integrate anti-access and area denial systems; exploit freedom of maneuver; MDO Concept briefing, slides #9 and #10

Competency Module 4: Describe how the three tenets address each of the multi-domain (operational) problems

Description of the module’s learning objective: The professional describes the three tenets of the MDO Concept that are used to address solutions to the five multi-domain (operational) problems. Each tenet is described independently, as well as mutually reinforcing when addressing solutions that may solve the five multi-domain (operational) problems. The explanation of convergence must include advantages over single-domain alternatives through cross-domain synergy and layering of options across domains, as well as the expansion of mission command to enable initiative and convergence at echelon through calibrated force posture and multi-domain formations.

Module 4 Questions:
1. How are the three tenets mutually reinforcing across the MDO framework?
2. Under the tenet of convergence, how will cross-domain synergy and layering of options of capabilities by the Joint Force complicate the enemy’s attempts to conceal its center of gravity, create and foster conditions favorable to U.S. Army mission command, and enable multi-domain command and control (C2) to stimulate-see-strike or see-strike combinations against the adversary’s vulnerabilities?
Supplemental Questions:
1. How do the principles of convergence apply and vary across echelons (Theater Army to Brigade) during competition (using examples from TP 525-3-1, section 3-5), armed conflict (using examples from TP 525-3-1, sections 3-6, 3-7, and 3-8), and return to competition (using examples TP 525-3-1, from section 3-9)?
2. What are the commonalities of convergence across the conditions presented during competition, armed conflict, and return to competition, using specific examples from TP 525-3-1, sections 3-5 through 3-9?

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th></th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when explaining the three tenets across the five multi-domain (operational) problems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates examples across echelons and conditions into discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Module 5

Explain the 14 required capabilities and their relationship to the MDO solution

Steps to Complete the Module:

I. Complete required reading
II. Support explanation of Visual Aids using specific sections in required reading
III. Address the questions via active discussions in a group setting

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapters 2 and 3; Appendices B and C.

Visual Aids: TP 525-3-1, Figure 3-1, Problems superimposed on the MDO framework, and Figure 3-3, MDO solutions; MDO Concept briefing, slide #11

Slide #11: Multi-Domain Operations Solution

Competency Module 5: Explain the 14 required capabilities and their relationship to the MDO solution

Description of the module’s learning objective: The professional describes how each tenet and combinations of the three tenets, displayed as specific aspects of the MDO solution in the visual aid, might resolve each of the required capabilities to conduct MDO. The professional describes how the displayed MDO solution, highlighted against five multi-domain (operational) problems, directly address several of the 14 required capabilities in Appendix B, TP 525-3-1.

Module 5 Questions:

1. How do each of the 14 required capabilities address each of the five multi-domain (operational) problems?
2. How are each of the MDO tenets presented as potential solutions for each of the 14 required capabilities? Provide examples from Chapter 3 where applicable.
3. How are the required capabilities reflective of the strategic, operational, or tactical levels of operations?
Supplemental Questions:

1. Using Appendix C, provide an example of functional areas of consideration when addressing the MDO framework, the five multi-domain (operational) problems, the three tenets, the MDO solution, and the 14 required capabilities?

2. If you only had slide #11, how would you use it to explain future operational environment, near-peer adversary’s stand-off, the five multi-domain (operational) problems, the three tenets, and the MDO solution?

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th></th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when explaining the MDO solution across the MDO framework.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendices B and C into discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

Module 6

Describe the purpose and utilization of the Battlefield Development Plan (BDP) with respect to analysis and experimentation of the MDO Concept

Steps to Complete the Module:
I. Complete required reading
II. Support explanation of visual aids using specific sections in the required reading
III. Address the questions via active discussions in a group setting

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapters 1, 2, 3, and 4; Appendices B, C, and D.

Visual Aids: MDO Concept briefing, slide #13: Battlefield Development Plan; and slide #14: MDO/BDP Linkages

Slide #13: Battlefield Development Plan (BDP) Slide #14: MDO/BDP Linkages

Competency Module 6: Describe the purpose and utilization of the BDP with respect to analysis and experimentation of the MDO Concept.

Description of module’s learning objective: Using TP 525-3-1 as the seminal document for the BDP Books, the professional is able to discuss the foundational linkages of the BDP Books 1, 2, and 3 from TP 525-3-1’s chapters and appendices. The professional describes the usefulness and utility of the BDP Books as the foundational context and a reliable analytical framework for operationalizing the MDO Concept

Module 6 Questions:
1. How are the chapters of TP 525-3-1, The U.S. Army in Multi-Domain Operations, 2028, reflected in Books 1-3 of the Battlefield Development Plan (BDP)?
2. How are the three tenets of the MDO Concept reflected in BDP Books 2 and 3?
Supplemental Questions:

1. Given a completed BDP play from Book 3, what are ways to show that the components of the play operationalize the components of the MDO Concept? Give examples that reflect chapters 2 and 3 and Appendix B.

2. How might a BDP-Russia play from Book 3 be utilized during a learning event (experiment, wargame, warfighting assessment, etc.) to focus on an assessment of Army Functional Concepts, Army Supporting Concepts, or operational and organizational (O&O) concepts? Describe the process that might be used (or some possible approaches) to assess the components in a current BDP-Russia play from Book 3 to a component(s) in an Army Functional Concept, Army Supporting Concept, or O&O concept.

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th>Addresses all questions directly referencing TP 525-3-1.</th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible in using conceptual and non-conceptual verbiage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates TP 525-3-1 content, with respect to the three tenets, into explanation of each BDP Book.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Module 7

Explain Army functional considerations in supporting the MDO solution across the MDO framework

Steps to Complete the Module:
I. Complete required reading
II. Support explanation of visual aids using specific sections in the required reading
III. Address the questions via active discussions in a group setting

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapter 3; Appendices B and C.

Visual Aids: TP 525-3-1, Figure 3-1, Problems superimposed on the MDO framework, and Figure 3-3, MDO solutions; MDO Concept briefing, slide #11

Slide #11: Multi-Domain Operations Solution

Competency Module 7: Explain Army functional considerations in supporting the MDO Solution across the MDO framework

Description of the module’s learning objective: The professional describes how functional considerations impact specific MDO solutions or are impacted by specific MDO solutions in the visual aid. The professional describes how functionally-focused MDO solutions, highlighted against five Multi-Domain (operational) problems, directly address any of the 14 required capabilities at Appendix B, TP 525-3-1.

Module 7 Questions:
1. How might an Army functional or an Army supporting concept describe approaches to remain in competition (as described in TP 525-3-1, section 3-5, MDO in competition: Compete to expand the competitive space, and section 3-9, MDO in return to competition: Re-compete to consolidate and expand gains)? Use information from these two sections’ sub-sections to present context.
2. What are some functional vulnerabilities or limitations to the MDO-Capable Army of 2028 that are not addressed in Appendix C?
Supplemental Questions:
1. Using Appendix C, TP 525-3-1, explain how an Army functional area might demonstrate an integrated capabilities approach across the MDO framework and at echelon to support the MDO Tenets and/or MDO Solutions.
2. How would experimentation provide evidence for the alignment of an Army functional or Army supporting concept’s military problem and central idea to the TP 525-3-1 five Multi-Domain (operational) problems?

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th></th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses specific conceptual verbiage when explaining functional aspects of the MDO solution across the MDO framework.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendices B and C into discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Module 8

Explain the influences of elements of national power or DIME (Diplomatic, Information, Military, and Economic) and their PMESII-PT (Political, Military, Economic, Social, Information, Infrastructure – Physical Environment and Time) effects on the tenets of the MDO Concept.

Steps to Complete the Module:
I. Complete required reading
II. Address the questions

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028. Chapter 3 and Appendices B and C.

Visual Aids: TP 525-3-1, Figure 3-1, Problems superimposed on the MDO framework, and Figure 3-3, MDO Solutions; MDO Concept briefing slide #11

Competency Module 8: Explain the influences of the elements of national power or DIME (Diplomatic, Information, Military, and Economic) and their PMESII-PT (Political, Military, Economic, Social, Information, Infrastructure – Physical Environment and Time) effects on the tenets of the MDO Concept.

Description of the module’s learning objective: Discuss the relationships of the elements of national power or DIME (Diplomatic, Information, Military, and Economic) and their PMESII-PT (Political, Military, Economic, Social, Information, and Infrastructure – Physical Environment and Time) effects on the tenets of the MDO Concept.

Slide #11: Multi-Domain Operations Solution

and Time) effects on the Tenets of MDO Concept, and incorporates DIME (Diplomatic, Information, Military, and Economic) factors into how, at echelon, these need to be complementary to U.S. military actions across the MDO framework.

Module 8 Questions:
1. How might the elements of DIME, with respect to U.S. and/or our multinational partners, positively impact our near-peer adversary’s systemic vulnerabilities and dependencies in order to remain in competition and/or when returning to competition?
2. How might the elements of DIME, with respect to U.S. and/or our multinational partners, rapidly implement actions to successfully penetrate, dis-integrate, and exploit our near-peer adversary’s systemic vulnerabilities and dependencies?
3. How do PMESII effects on the tenets of the MDO Concept positively impact the key required capabilities?
Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible in using conceptual and non-conceptual verbiage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of DIME and PMESII into the discussion.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

Module 9

Create and brief a presentation that describes the Army functional considerations in supporting the MDO solution across the MDO framework

Steps to Complete the Module:

I. Complete required reading
II. Create presentation slide(s) that reflect discussions from addressing the questions in module 7

Reading Requirement:

TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028.

Visual Aid: MDO Concept briefing v7, 20 May 2019

Competency Module 9: Create and brief a presentation that describes the Army functional considerations in supporting the MDO solution across the MDO framework

Description of the module learning objective: The professional prepares and briefs a 15-minute presentation that uses MDO Concept briefing slides to depict and describe how functional considerations impact specific aspects of the MDO solution or are impacted by specific aspects of the MDO solution in the visual aid. The professional depicts and describes how functionally focused aspects of the MDO solution, highlighted against the five multi-domain (operational) problems, directly address any of the 14 required capabilities in Appendix B, TP 525-3-1.

Module 9 Task:

Develop a visual presentation that depicts and describes how functional considerations impact specific aspects of the MDO solution or are impacted by specific aspects of the MDO solution in the visual aid. The professional depicts and describes how functionally focused aspects of the MDO solution, highlighted against the five multi-domain (operational) problems, directly address any of the 14 required capabilities in Appendix B, TP 525-3-1.

Assessment Rubric: Used primarily for self-assessment.

<table>
<thead>
<tr>
<th>Addressed all questions directly referencing TP 525-3-1.</th>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses specific conceptual verbiage when explaining functional aspects of the MDO solution across the MDO framework.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of Appendices B and C into discussions.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Module 10

Create and brief a presentation that describes the requirement for the whole-of-government application of elements of DIME (Diplomatic, Information, Military, and Economic) and their PMESII (Political, Military, Economic, Social, Information, and Infrastructure) effects on the tenets of the MDO Concept.

Steps to Complete the Module:
I. Complete required reading
II. Create presentation slide(s) that reflect discussions from addressing the questions in module 8

Reading Requirement:
TP 525-3-1 (6 December 2018). The U.S. Army in Multi-Domain Operations, 2028.

Visual Aid: MDO Concept briefing v7, 20 May 2019

Competency Module 10: Develop a presentation that describes the elements of DIME (Diplomatic, Information, Military, and Economic) and their PMESII (Political, Military, Economic, Social, Information, and Infrastructure) effects on the tenets of the MDO Concept.

Description of module learning objective: The professional prepares and briefs a 15 minute presentation that uses previous MDO Concept briefings slides and incorporates, visually, DIME (Diplomatic, Information, Military, and Economic) factors into how, at echelon, these need to be complementary to U.S. military actions across the MDO framework.

Module 10 Task:
Develop a presentation that reflects the whole-of-government application of the MDO Concept using the factors of DIME (Diplomatic, Information, Military, and Economic) depicting, at echelon, how the PMESII (Political, Military, Economic, Social, Information, and Infrastructure) effects factors into how, at echelon, these need to be complementary to U.S. military actions across the MDO framework support the tenets of the MDO Concept.

Assessment Rubric: Used primarily for self-assessment

<table>
<thead>
<tr>
<th>Go</th>
<th>Re-Do</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses all questions directly referencing TP 525-3-1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible in using conceptual and non-conceptual verbiage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates content of previous MDO Concept presentations, and incorporates new content with respect to PMESII (Political, Military, Economic, Social, Information, and Infrastructure) effects.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix A. MDO Concept Briefing (version 7, 20 May 2019)

SUBJECT: MDO Concept Briefing for Understanding the MDO Concept Training

General. These 12 standard slides are used to brief the MDO Concept. Additionally, each slide is a visual aid that helps achieve the competency (knowledge, skills, and abilities) for the respective learning module in which the slides are used. The key points in the learning criteria below for each slide help achieve the competency required to brief each MDO Concept briefing slide. The base slide deck is MDO Concept Briefing, version 7, 20 May 2019, and the slides will be updated to reflect current and relevant thinking on the MDO Concept.

A-1. Slide #3, Operational Environment used in Module 1: Explain the future OE with respect to near-peer capabilities

Slide #3 Learning Criteria

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains how the U.S. is contested in every domain.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how smaller armies fight in an expanded battlefield that is increasingly lethal and hyperactive.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how nation states have more difficulty imposing their will within a more politically, culturally, technologically, and strategically complex environment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains near-peer adversaries competing below armed conflict that challenges our deterrence efforts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes the projected increase in dense urban terrain/environments.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

A-2. Slide #4, Threat focus: China and Russia used in Module 1: Explain the future OE with respect to near-peer capabilities

### Threat Focus: China and Russia

- Focuses on near-peer threat (China and Russia) and aligns with NSS/NDS:
  - Provides conceptual solution to near-peers’ operational approaches
  - Uses Russia as the tactical/technological pacing threat
  - Requires further analysis to address tactical and technical applicability of China
  - Accounts for proliferation of anti-access and area denial concepts and capabilities to non-state actors (Iran, North Korea, VEO)

- Enables and allows for “scoping” to a lesser threat

---

### Slide #4 Learning Criteria

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains the NSS and NDS influences on the MDO Concept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains the importance of a concept and the distinction with current doctrine and operations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defines pacing threat and explains importance to overcome anti-access and area denial.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains near-peer and non-state actors and the relationship to the NSS and NDS.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes conceptual applicability to other states that contest international norms as predicted in the Joint Operating Environment 2035.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

*The MDO concept assumes... Chinese and Russia concepts and force development are sufficiently similar for the Army to solve the problems presented by Russia in the near/mid-term and adapt to the changes China develops mid/far-term.*

-TRADOC Pam 525-3-1, pg. 6

- **Political separation** that creates strategic ambiguity among the U.S. and its partners in competition and reduces speed of recognition, decision, and reaction.
- **Physical separation** of the Joint Force in time and space
- **Functional separation** of the Joint Force in capability

**Combined Arms Armies employ organic long-, mid-, and short-range systems to create operational and tactical stand-off that requires attacking functions rather than formations**

---

### Slide #5 Learning Criteria

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describes how China and Russia have invested in multiple layers of stand-off to avoid our strengths that we displayed during battles in 1991 and 2003.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Explains multiple layers of stand-off: (1) political and social stand-off that creates strategic ambiguity among the U.S. and its partners in competition and reduces speed of recognition, decision, and reaction; mostly in the cyberspace and space domains and social media.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Explains stand-off in both physical and functional aspects with respect to (2) Anti-Access and Area-Denial (A2AD) systems; (3) long-range precision massed fires; (4) mid-range and short-range fires and hybrid warfare.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
A-4. Slide #6, *Threats Create “Stand-off”* used in Module 2: *Explain stand-off*

### Slide #6 Learning Criteria

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains these graphics as a follow-on to previous slide to emphasize that the Joint Force must solve standoff, diluted deterrence, and limited options thru both posture and penetration.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how Army forces, as an element of the Joint Force, conduct Multi-Domain Operations to <strong>prevail in competition</strong>; when necessary, Army forces are prepared to conduct armed conflict.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains the four pillars that adversaries use to create confusion and ambiguity during competition (Diplomatic and Economic Actions; Unconventional Warfare; Information Warfare; and Conventional Forces).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains near-peer threats’ (Russia and China) systemic vulnerabilities and dependencies that create operational shortfalls on which the Joint Force can exploit across the competition and armed conflict continuum.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how this approach to stand-off applies to other threats based on the unique cultural, geographic, and military contexts posed by these and other future threats.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A-5. Slide #7, *Multi-Domain Operations Defeat “Stand-off”* used in Module 3: *Explain the five multi-domain (operational) problems*

**Slide #7 Learning Criteria**

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains how defeating the future threats’ stand-off requires understanding that the battlefield is not the traditional geography bounded by national borders; describes how the MDO framework is reflected in at least seven areas depicted linearly in the visualization.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains that the nature of MDO is that operations are not sequential but rapid, continuous and, at times, layered at various echelons, as well as without patterns that could be discerned.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains the five multi-domain operational problems with respect to the MDO framework; describes these problems are not the restricted by the area’s boundaries or by the traditional joint campaign phases (phase 0 to phase V).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes how the MDO framework requires a thorough understanding and application of complementary physical, virtual, and cognitive capabilities that must be developed in support of force modernization, as well as readiness.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A-6. Slide #8, **Central Idea** used in Module 3: *Explain the five multi-domain (operational) problems*

**Central Idea**

**Army forces, as an element of the Joint Force, conduct Multi-Domain Operations to prevail in competition; when necessary, Army forces penetrate and dis-integrate enemy anti-access and area denial systems and exploit the resultant freedom of maneuver to achieve strategic objectives (win) and force a return to competition on favorable terms.**

**Current Options**
- Do nothing and concede competitor actions and readjust strategic objectives
- Win a protracted conflict by regaining the operational initiative and defeating enemy forces

**MDO Capable Force 2028/2035 Options**
- Do nothing and concede competitor actions and readjust strategic objectives
- Expand the competitive space on favorable terms to deter enemy aggression (*preferred method*)
- Respond quickly to deny a fait accompli/attack and achieve an operational position of advantage
- Win a protracted conflict by regaining the operational initiative and defeating enemy forces

**Slide #8 Learning Criteria**

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains our intention to expand the competitive space and prolong the current state environment or status quo IAW the NDS, and explains, at the same time, that we must have the capabilities to transition rapidly to armed conflict.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how we must solve problem #1 if we are to win a short conflict.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains that Russia and China are designing their systems to fight a protracted conflict in order to impose costs on whoever opposes them. Explains how this requires that our future capabilities are not developed for attrition.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes how this MDO Concept, as it is being refined, provides the azimuth for the AMS, drives DOTMLPF-P solutions, and deepens integration of general purposes and special operations forces with alkies and partners.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

A-7. Slide #9, **Tenets of Multi-Domain Operations** used in Module 4: Describe how the three tenets address each of the multi-domain (operational) problems

**Tenets of Multi-Domain Operations**

Executing MDO requires changing how the Army: postures the force physically with increased authorities; organizes its formations; and employs its new capabilities and emerging technologies.

<table>
<thead>
<tr>
<th>Calibrated Force Posture</th>
<th>Multi-Domain Formations</th>
<th>Convergence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Presence Forces</td>
<td>Conduct Independent Maneuver</td>
<td>Employ Cross-Domain Fires</td>
</tr>
<tr>
<td>Expeditionary Capacity</td>
<td>Maximize Human Potential</td>
<td>Echelons Above Brigade Formations</td>
</tr>
<tr>
<td>National-Level Capabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Slide #9 Learning Criteria**

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describes the approach of implementing each of these tenets to solve each of the five multi-domain (operational) problems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how calibrated force posture is about the right forces to remain in competition as well as achieving favorable force postures when returning to competition with respect to: sustainment; maneuver support; C2; long-range fires; sufficient maneuver forces to contest the enemy’s maneuver of forces; and the right authorities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains how all formations must possess multi-domain capabilities with the capacity and endurance (resilience) to pose multiple and compounding dilemmas on the adversary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains convergence in achieving rapid and continuous integration of all domains across time, space, and capabilities to overmatch the adversary.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Understanding the Multi-Domain Operations Concept – Learning Curriculum

A-8. Slide #10, *Convergence* used in Module 4: Describe how the three tenets address each of the multi-domain (operational) problems

**Slide #10 Learning Criteria**

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains how convergence starts with figuring out what the requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are to solve a specific problem.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes how our capabilities to synchronize Joint Force capabilities at</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>echelons against a current threat (using hundreds of leaders and various</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>staff levels at time of our choosing) must now be focused against a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>future adversary that has studied our capabilities, and how we must be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>able to do this rapidly and continuously against specific systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains that interoperability across Service, interagency, and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>multinational partners is a key element to executing MDO. Multi-domain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2 (described as Joint All-Domain C2 in the emerging DoD perspective on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the Joint Force) is the combination of joint and combined materiel,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>processes, and authorities that underpin convergence, multi-domain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>formations, and C2 designed to enable and exploit interoperability.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A-9. Slide #11, **Multi-Domain Operations Solution** used in Module 5: Explain the 14 required capabilities and their relationship to the MDO solution, and Module 7: Explain Army functional considerations in supporting the MDO solution across the MDO framework.

**Slide #11 Learning Criteria**

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explains how this slide brings components of the MDO Concept – future OE, near-peer adversary, and stand-off against MDO framework and the five MD problems with the three Tenets that address the five problems – together.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Describes the tasks that address each of the multi-domain problems wrt the echelons at which different formations achieve solutions to address the problem.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Explains solutions sets by referencing tenets that address problems that deny near-peer adversary’s successful stand-off.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Describes simultaneity of solutions, as well as use of experimentation to determine optimal combination of cross-domain capabilities to achieve desired effects.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A-10. Slide #12, *AirLand Battle vs MDO: What is the Difference?* used as a back-up slide. This slide might be used when explaining the difference between ALB doctrine and the MDO Concept, between synchronization and convergence, or when explaining long-/mid-/short-range threats in support of describing physical and/or functional stand-off.

### Slide #12 Learning Criteria

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains the differences between ALB and MDO Concept by highlighting the elements of each: Operational Environment; Focus; Operational Context; Central Idea; Domains; Echelon; Phases; and Concept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides an example of any element that may be asked by using historical contexts for ALB application in contrast to how MDO Concept would differ using a BDP play that operationalizes the MDO Concept tenets.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A BDP is an ongoing analytical effort with a regularly updated document that:

- Operationalizes Multi-Domain operations in ways that can be modeled and tested.
- Conveys, in specific actionable detail, how future threat and friendly forces operate within an approved scenario in order to develop a series of “plays.”
- Provides a net assessment that guides prioritization of challenges and opportunities for future force concept and capability development.

Each BDP consists of three books:

- Book 1: Threat Formations and Systems – “Red Forces”
- Book 2: Capability Sets – “Blue Forces”
- Book 3: Plays – “Blue vs Red”

---

**Key Points**

1. Plays – Multi-domain force packages and capability employment options that achieve specific effects
2. Net assessment – A multidisciplinary assessment process used to provide a comparative evaluation of the balance of strengths and weaknesses

---

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains that MDO Concept continues to be analyzed through both inductive and deductive approaches that use both qualitative and quantitative methodologies to analyze data from experimentation (from low fidelity table top exercises (TTXs through high fidelity field experiments) across the community of concept developers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains that the analytical framework to any MDO Concept experimentation is the three BDP books that ensure consistency of threat (Book 1), friendly data (Book 2), and, as applicable, the operationalization of the three tenets (Book 3).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains the rationale for continuous experimentation on the MDO Concept is to continue to see how to best operationalize the concept so the DOTMLPF-P solutions are developed using consistency and analytical rigor.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A-12. Slide #14, **MDO BDP Linkage**. This slide is used during Module 6 discussions.

Slide #14 Learning Criteria

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explains that the lineage or linkage between MDO Concept and the BDP are both helpful to describe what the components of the MDO Concept are and how they are operationalized within the context of Army and Joint experimentation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses explanation from Slide #13 Key Points to emphasize that since the MDO Concept is a concept that is aspirational, the BDPs are operationalizations of aspirational tenets that continue to enable learning across the future force modernization enterprise on how to approach solving the multi-domain (operational) problems.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B. Small Group Facilitator Training Slide Deck

B-1. Training small group facilitators: Duration is estimated for 2 hours. This is best conducted with other small group facilitators who meet the criteria to be a facilitator.

Who: Ideally, facilitators are members of the organization who are not in a supervisory position but demonstrate the ability to maintain rapport with others, converse with all levels of the organization’s hierarchy, and is able to maintain order in a small group of learners so that each learner does not dominate discussions.

What: Designated facilitator role models behaviors and communications expected by small group participants. Facilitator measures the time it takes to run 5-6 participants through the module’s questions. Facilitator maintains focus of participants’ discussion to answer the question directly. Facilitator takes notes of questions participants raise that cannot be found in TP 525-3-1.

How: Facilitators participate as if they are small group participants, each taking a turn as the group’s facilitator. Discuss points in Small Group Facilitator Training slide deck at Appendix B.

Wherever possible, two co-facilitators per small group is optimal to ensure management of discussions and time, and note taking is achieved. Also, whenever possible, small groups are intentionally created with members from different subordinate groups who don’t work together. Facilitator’s supervisors should not be placed in small groups with a facilitator who is a direct report.

B-2. Facilitator Training Slides. The three slides that are included in this appendix guide the training of facilitators who will lead the small group discussions. After an introductory plenary session, training facilitators is best accomplished by dividing the large group of facilitators into smaller groups with 5-6 people in each group, and having each person role-model the facilitator role while the other facilitator trainees provide feedback on ways to maintain rapport with a small group, keep to time limits so each person has the opportunity to share thoughts, ideas, and comments about the specific module question, and to ensure active discussions focus on the specific questions with respect to what is available in TP 525-3-1. Although knowledge, personal and professional background, and experiential information may enhance discussion about the questions, the facilitator’s role is to focus the discussion on how the content of TP 525-3-1 addresses each question. A best practice technique for facilitators is to use a “Request for information (RFI) Parking Lot” on a whiteboard or piece of paper taped to the wall so when a small group participant has an idea, thought, or comment that drives the discussion away from directly answering the specific module question, the facilitator adds the topic to the “RFI Parking Lot” in order to return to the module question. Issues in the RFI Parking Lot, if not addressed in subsequent modules, may be presented as unanswered issues during the AAR.

During the Facilitator’s training, the sponsor (host organization) can also decide whether the participants will be required to implement modules 9 or 10 with each participant briefing the entire MDO Concept Briefing slide deck as individuals or as a small group. Emphasis should be made for each participant to demonstrate competence in the application of the participant’s functional or area of expertise with the MDO Concept.
Purpose: To enable effective learning that leads to MDO Concept Expertise

Presuppositions:
1. None of us is as smart as all of us (Blanchard, 2001).
2. A concept is an idea that requires continuous physical, virtual, and cognitive examination.
3. An operating concept is aspirational based on leadership vision.
4. There is no absolute truth in an operating concept; the best practitioners understand how the components can work together through active discussion.
5. Active discussion is about everyone sharing ideas; not demonstrating intellectual superiority.
6. When active discussion fails, revert to presuppositions #1-4.

Starting Point: TP 525-3-1 is the published Army Operating Concept (AOC). Learning the AOC presupposes that the learner has read it and agrees to approach MDO Concept Expertise learning by accepting the presuppositions.

Reference

Discussion Points:
Facilitators enable the learning of the small group participants by managing the small group’s:

Time: divide available time so each module is provided equal amount of time.

Overview: provide overview of learning curriculum’s purpose, each module layout, how to get the most from the small group discussion session, and what the end state is for the learning.

Answers: keep focus of participants’ discussions as a direct answer to the question.

Participant Expectations:
+ Have read TP 525-3-1 before the scheduled the “Understanding the MDO Concept” training course;
+ Will directly address each question in each module, per facilitator’s management;
+ Stay on task; acknowledge the components of the concept being discussed by challenging what the component means; find where the challenged issue might be addressed in TP 525-3-1;
+ Allow others in the small group to address the question and raise challenges of inquiry; and
+ Refer to presuppositions as often as necessary.

How to get the most from the training session: This is a concept, an aspirational approach to guide our modernization strategy. Critical thinking and questions of inquiry about what is in
Understanding the Multi-Domain Operations Concept – Learning Curriculum

TP 525-3-1 is how to most effectively learn. You MUST have read TP 525-3-1 before the scheduled training.

Learning Facilitator’s Guide

Learning Curriculum: Enables learning through UnderstandingTP 525-3-1 using Socratic approach of asking questions to achieve small group active discussions

Overview: Understanding the MDO Concept - Learning Curriculum:

- Modules 1-5
  - 1 – Explain the future OE with respect to near-peer capabilities
  - 2 – Explain Stand-Off
  - 3 – Explain the five multi-domain (operational) problems
  - 4 – Describe how the three tenets address each of the multi-domain (operational) problems
  - 5 – Explain the 14 required capabilities and their relationship to the MDO framework and the tenets

- Module 6 Overview (unclassified version presented in plenary)
  - 6 – Describe the purpose and utilization of the battlefield development plan (BDP) with respect to analysis and experimentation of the MDO Concept

- Discuss level of learning required to address questions in each of the modules
- Discuss what other critical thinking (supplementary) questions might aid in achieving the module competency
- Uses reference library documents to support active discussions

Discussion Points:

Facilitators enable the learning of the small group participants by thoroughly explaining learning objectives and expectations of the “Understanding the MDO Concept” training course.

Overview: Facilitator goes through the following within small group setting: Learning Purpose; Learning Description; and Learning Preparation and Delivery.

Understanding TP 525-3-1 Learning Objectives: (1) Review, interpret, and critique TP 525-3-1, The U.S. Army in Multi-Domain Operations, 2028; (2) Assist others in understanding the components of the MDO Concept; (3) Identify and discriminate between the variety of perspectives brought by professionals at different levels of experience, knowledge, and exposure to how the U.S. Army currently operates and how the U.S. Army intends to operate in the future; (4) Assist in the analysis and/or application of the MDO Concept components across the width and depth of experimentation efforts that influence the Army Modernization Strategy; and (5) Develop a strategy, protocol, and thought process when presenting aspects of the MDO Concept to a variety of audiences.
Understanding the Multi-Domain Operations Concept – Learning Curriculum

**Small Group Expectations:** Facilitators manage discussions of module’s questions, maintain focus of participants’ discussion to answer the question directly, and allow time for each participant to address module’s questions.

**Learner Facilitator’s role:** To enable effective learning that leads to TP 525-3-1 understanding by complying with these activities in the small group:

- Explains how each module enables learning within a small group environment
- Explains the specific module’s learning objectives for the participants
- Facilitates discussion that addresses the required questions; as time allows, discusses Supplementary Questions.

**Module title and level**
Each module is a competency or skill to achieve for module.

**Steps to complete**
Standard approach for every module.

**Reading Requirement**
Reading Requirement: TP 525-3-1 December 2019, The U.S. Army in Multi-Domain Operations, 2020, Chapter 2 and Appendix A.

**Video Requirement**
Video Requirement: Visual Aid: Figure 2-1, MDO Framework and Figure 2-2, China and Russia’s aggression and armed conflict.

**Module Questions**
Each question provides the basis for an active discussion period. The question must be directly addressed to receive credit. Avoid going down “rabbit hole,” though discussion about how one might be diverted based on confusion or doubt is appropriately noteworthy. There are Module Questions required to be discussed. Responses to Supplemental Questions can be discussed as time allows.

**Assessment Rubric**
Basic achievable outcomes: If facilitator adds criteria, this must be provided at the start of the module.

**Discussion Points:**
This slide may be used by facilitators to explain small group expectations at the beginning of the “Understanding the MDO Concept” training course to achieve TP 525-3-1 understanding.

For the full "Understanding the MDO Concept" training course, the graphics on this slide are used to explain points on page 38, Overview: provide overview of learning curriculum’s purpose, each module layout, how to get the most from the training session, and what the end state is for the training/learning.