Ensuring the LSCO Paradigm Remains Relevant

A Monograph

by

MAJ Ryan B. Rothchild US Army



School of Advanced Military Studies
US Army Command and General Staff College
Fort Leavenworth, KS

2020

Approved for public release; distribution is unlimited.

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY)	2. REPORT TYPE	3. DATES COVERED (From-To)
21-05-2020	Master's Thesis	JUN 2019-MAY 2020
4. TITLE AND SUBTITLE		5a. CONTRACT NUMBER
Ensuring the LSCO Paradig	5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER	
MAJ Ryan B. Rothchild	5e. TASK NUMBER	
		5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATXL-SWD-GD Fort Leavenworth, Kansas 66027-2301		8. PERFORMING ORG REPORT NUMBER
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Advanced Military Studies Program		10. SPONSOR/MONITOR'S ACRONYM(S) SAMS
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)
42 DICTRIBUTION / AVAIL ADJUTY C	TATERACNIT	

12. DISTRIBUTION / AVAILABILITY STATEMENT

Approved for public release, distribution is unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

The US Army is growing towards the national strategic aims inherent in Great Power Competition by focusing modernization and accessions towards a force ready for Large Scale Combat Operations (LSCO). While LSCO may be the most effective target paradigm for interwar preparation given the growing military capabilities of great power competitors such as China and Russia, it may also lead the Army into a narrow cognitive mindset that prohibits flexibility. In this event, the Army will experience similar difficulties adjusting to the operational environment as were evident in 2003 after successful offensive operations into Iraq transitioned to long-term limited contingency operations. This paper contains an argument to ensure the target paradigm used by the US Army to prepare for future conflict is relevant to the strategic context in order to ensure modernization efforts are effective to prepare for future conflict. Army Design Methodology as well as fundamental design concepts support the argument.

15. SUBJECT TERMS

Great Power Competition, Large Scale Combat Operations (LSCO), Design, Strategic Context, Zero-growth, No-growth, Army Design Methodology (ADM)

16. SECURIT	TY CLASSIFICATI	ON OF:	17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON MAJ Ryan B. Rothchild
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. PHONE NUMBER (include area code)
(U)	(U)	(U)	(U)	40	(913) 758-3305

Monograph Approval Page

Name of Candidate: MAJ Ryan B. Rotho	hild
Monograph Title: Ensuring the LSCO Pa	radigm Remains Relevant
Approved by:	
Alice A. Butler-Smith, PhD	_, Monograph Director
Nathan R. Springer, COL	_, Seminar Leader
Brian A. Payne, COL	_, Director, School of Advanced Military Studies
Accepted this 21st day of May 2020 by:	
Prisco R. Hernandez, PhD	_, Acting Director, Office of Degree Programs
necessarily represent the views of the US	nerein are those of the student author and do not Army Command and General Staff College or any other tudy should include the foregoing statement.)
maps, graphics, and any other works inco	ission has been obtained for the inclusion of pictures, reporated into this manuscript. A work of the US owever further publication or sale of copyrighted images

Abstract

Ensuring the LSCO Paradigm Remains Relevant, by MAJ Ryan B Rothchild, 40 pages.

The US Army is growing towards the national strategic aims inherent in Great Power Competition by focusing modernization and accessions towards a force ready for Large Scale Combat Operations (LSCO). While LSCO may be the most effective target paradigm for interwar preparation given the growing military capabilities of great power competitors such as China and Russia, it may also lead the Army into a narrow cognitive mindset that prohibits flexibility. In this event, the Army will experience similar difficulties adjusting to the operational environment as were evident in 2003 after successful offensive operations into Iraq transitioned to long-term limited contingency operations. This paper contains an argument to ensure the target paradigm used by the US Army to prepare for future conflict is relevant to the strategic context in order to ensure modernization efforts are effective to prepare for future conflict. Army Design Methodology as well as fundamental design concepts support the argument.

Contents

Abstract	iii
Contents	iv
Acknowledgements	v
Abbreviations	vi
Figures	vii
Introduction	1
Methodology	5
Understanding Change in the Army from 2003 to 2014	9
Army Conditions Emerging from Limited Contingency Operations	
Actions and Posturing of Competitor Nations	
US Politics Interconnect with Great Power Competitors	12
Army Reorientation towards LSCO	13
The Target Paradigm for Future Conflict	15
Identifying Problems in the Strategic Context	17
Resource Scarcity Restricts Expectations of Army Capacity and Capability	18
Synthesis: Trends Reveal an Inability to Reach the Desired System	
Framing the Problem: Aligning the LSCO Paradigm with Future Conflict	21
Indicators Implying a Possible Need to Reframe	25
Narrative to positively influence the perception of the people	25
Risks of Internalizing a Narrowing Army Worldview	
Recommendations for Continued Use of the LSCO Pradigm	30
Using Design Methodology to Regularly Assess Leadership Decisions	31
Using Design Methodology to Ensure Flexible Modernization Programs	32
In Closing	33
Bibliography	35

Acknowledgements

The author thanks the staff at the School of Advanced Military Studies for their compassion and patience with the contributing circumstances that led to an unconventional approach to completing this assignment. In particular, thanks to Dr. Adam Lowther, COL Aimee DeJarnette, COL Nathan Springer, and COL Brian Payne for their understanding, as well as Dr. Gorman and Dr. Dixon for their assistance behind the scenes. Special thanks to Dr. Alice Butler-Smith for providing most of the ideas found in this monograph and for her assistance in arranging them and providing focus. Thanks also to the students of Seminar 5, AMSP class 2020 who lent their time and energy in different capacities, especially Drew Blakemore. Finally, and most importantly, thanks to my family, particularly my son, Mac. Despite events and circumstances this last year, my family provided the deepest sense of purpose and gave meaning and hope to an otherwise insurmountable series of personal and professional challenges.

Abbreviations

ADP Army Doctrine Publication

CAC Combined Arms Center

CJCS Chairman of the Joint Chiefs of Staff

EAB Echelons Above Brigade

FM Field Manual

JCS Joint Chiefs of Staff

JP Joint Publication

LCO Limited Contingency Operation

LSCO Large Scale Combat Operations

MCO Major Combat Operation

ROMO Range of Military Operations

TRADOC Training and Doctrine Command

Figures

Figure 1. Activities of Army Design Methodology	6
Figure 2. The Design Process (modified), developed by the author.	8
Figure 3. Term 2014-2017 Factors in the Strategic Context.	9
Figure 4. Conditions in the strategic context, 2014-2017, contrasted with the LSCO paradigm	
produce efforts to redesign the force.	14
Figure 5. Chart indicating time periods of Army preparation paradigms	17
Figure 6. Additional factors gain relevance in the strategic context	20
Figure 7. Aligning the Target Paradigm within the Zone of Potential Future Conflict	22
Figure 8. Adding the Range of Military Options dimension	24

Introduction

While the Army currently prepares for war against possible emerging threats, many in the Army wonder if those efforts will result in a future force that can meet the nation's needs when the next conflict comes. In the years that followed the overthrow of Saddam Hussein in 2003, the American people asked why the Army was so ill-prepared to fulfill follow-on missions to provide security force assistance and military governance in Iraq once initial military objectives were met. Now, the Army of 2020 is working to ensure something similar does not happen again by striving to achieve overmatch of the emerging threat capabilities observed in competitor nations.

Analysis suggests that the military buildup in competitor nations creates the potential for the United States to face a military challenge against overwhelming opposition.

1

As a result, the United States implemented strategic aims that shift the Army toward readiness for large scale conventional military competition.² The National Security Strategy (NSS), published by the Trump administration in December 2017, identifies the necessity to maintain overmatch relative to competitor nation conventional military buildup as a vital component of United States capability to "win across any plausible conflict that threatens U.S. vital interests." The subsequent 2018 National Defense Strategy summary produced by the Office of the Secretary of Defense indicates the need to increase investment in force size and capabilities in order to "defeat enemies and achieve sustainable outcomes" across the spectrum of

¹ David A. Schlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* (RAND Corporation, 2016), 1, accessed 1 March 2020, https://doi.org/10.7249/RR1253.

² Mark F. Cancian, *U.S. Military Forces in FY 2020: The Struggle to Align Forces with Strategy.* (Washington, DC: Center for Strategic and International Studies, November 2019), 2, accessed 6 March 2020, https://www.csis.org/analysis/us-military-forces-fy-2020-struggle-align-forces-strategy-1.

³ Office of the President of the United States of America, *National Security Strategy of the United States of America* (Washington, DC, 2017), 28, accessed 1 October 2019, https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf.

National Military Strategy produced by the Joint Chiefs of Staff indicates United States military strategy aims to "build a combat credible Joint Force capable of defending the homeland, deterring competitors, and defeating adversaries," citing the increasing military capabilities of competitor nations as representing the military's greatest challenge. The 2017 NSS influenced the current direction and provides much of the American perspective on the balance of power in the world: "We learned the difficult lesson that when America does not lead, malign actors fill the void to the disadvantage of the United States. When America does lead, however, from a position of strength and confidence and in accordance with our interests and values, all benefit."

From a realist and modernist perspective, the United States sees itself as the global leader and seeks control over setting the terms of a zero-sum situation through military strength. As stated in the 2017 NSS, "Our task is to ensure that American military superiority endures, and in combination with other elements of national power, is ready to protect Americans against sophisticated challenges to national security." The 2017 NSS reflects a mindset in the United States that considers military strength the final authority in competition. As such, military strength is ultimately the element of national power most relevant to conflicts between nations, and the strongest nation sets the terms. The buildup of military power in nations whose outspoken views on American policy and action are resoundingly against the continuance of American dominance over international affairs suggests that they are preparing for war.⁸ From

⁴ Headquarters, Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America*, 2018, 5, accessed 20 March 2020, https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

⁵ Joint Chiefs of Staff, *Description of the 2018 National Military Strategy*, 2019, 4, accessed 25 March 2020, https://www.jcs.mil/Media/News/News-Display/Article/1903669/description-of-the-2018-national-military-strategy-released/.

⁶ Office of the President of the United States of America, *National Security Strategy of the United States of America*, 3.

⁷ Ibid.

⁸ Stephen J. Blank, "Imperial Ambitions: Russia's Military Buildup," *World Affairs* 178, no. 1 (June 2015): 67, accessed 16 March 2020,

the United States' realist, modernist perspective, the reason Russia and China are building their military power is to coerce other nations to their advantage by force, or to maintain internal authority within their own countries.⁹

Present US Army doctrine identifies "peer threats" as competitor nations whose intentions are unclear or potentially hostile to United States interests, and whose capabilities weigh heavily against those of the United States military. ¹⁰ This perspective is evident in the 2014 Army Operating Concept, a conceptual analysis document that captures the evolving mindset on how best to shape doctrine and prepare for future threats:

Potential enemies invest in technologies to obtain a differential advantage and undermine U.S. ability to achieve overmatch. These technologies include long-range precision fires, air defense systems, electric fires, and unmanned aerial systems (UAS)... Potential enemies develop cyberspace capabilities such as disruptive and destructive malware and space capabilities such as anti-satellite weapons to disrupt U.S. communications and freedom of maneuver. To prevent enemy overmatch, the Army must develop new capabilities while anticipating enemy efforts to emulate or disrupt those capabilities. ¹¹

Present US Army doctrine reflecting a need to achieve overmatch against peer competitors evolved out of earlier conceptual publications that coincided with Russian aggression into the Ukraine. The ideas introduced in the 2014 Operating Concept, "Win in a Complex World," influenced doctrine published in Field Manual (FM) 3-0, 2017, and Army Doctrine Publication (ADP) 3-0, 2019. Accordingly, between 2014 and 2017, the Army elevated the

http://lumen.cgsccarl.com/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=poh&AN=10 2673325&site=ehost-live&scope=site.

⁹ Ibid., 68–70; Richard Weitz, "Pentagon Report Details China's Unrelenting Military Buildup," *World Politics Review* (10 June 2014): 1, accessed 14 March 2020, http://lumen.cgsccarl.com/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=poh&AN=96 430667&site=ehost-live&scope=site; *RAND Arroyo Center Annual Report 2018-2019* (RAND Corporation, 2019), 12–13, accessed 2 March 2020, https://www.rand.org/pubs/corporate_pubs/CP708-2018-2019.html.

¹⁰ Headquarters, Department of the Army, *Unified Land Operations*, Army Doctrinal Publication 3-0 (Washington, DC: Government Printing Office, 2019), 1-3-1–4. Other doctrinal references may refer to competitor nations as "near-peer threats."

¹¹ Headquarters, Department of the Army, *The US Army Operating Concept: Win in a Complex World 2020-2040*, TRADOC Pamphlet 525-3-1 (Washington, DC: Government Printing Office, 2014), 11.

¹² Headquarters, Department of the Army, *Unified Land Operations*, 1–4.

prevalence of peer threat conflict from non-existent in the first version of ADP 3-0, *Unified Land Operations*, 2011, to a "distinct possibility" for "large-scale ground combat against peer threats" in ADP 3-0, *Operations*, 2017. The new version of FM 3-0, *Operations*, 2017 signaled the deliberate shift in Army thinking away from Limited Contingency Operations (LCO) centric thinking, a paradigm of military operations associated with counterinsurgency and security force assistance.¹³ The new paradigm, Large Scale Combat Operations (LSCO), represents a return to "sustained combat operations involving multiple corps and divisions." ¹⁴

The Army established the Major Combat Operation (MCO) concept as the kind of conflict wherein it would be called upon to address a peer threat in LSCO. Subsequently, the Army established the conditions necessary to prevail in ground combat against a peer threat in an MCO. The argument in this paper refers to this set of conditions as the "LSCO paradigm." The LSCO paradigm became the target "desired system" against which the Army viewed itself between 2014 and 2017, identified shortfalls, and took action between 2017 and 2020 to build readiness for ground combat of the scope and scale outlined in FM 3-0, 2017.

While this doctrinal shift towards large scale combat demonstrates sound logic from a realist modernist perspective, using LSCO as the target paradigm for Army preparation may not fully prepare the Army for actual operations in the future. The next major war may be an unavoidable MCO against a peer competitor, or it may be the next series of opportunities to employ military forces in some other way to the best advantage of the United States below the threshold of armed conflict. The problem the Army faces is this: the Army must ensure its preparation for future operations will be effective in a context defined by increasing levels of

¹³ Joe Lacdan, "Revised Doctrine Prepares Soldiers for Changing Global Threats," *Army.Mil*, last modified 6 October 2017, accessed 24 February 2020, https://www.army.mil/article/195034/revised_doctrine_prepares_soldiers_for_changing_global_threats; Michael D. Lundy, "Field Manual 3-0, Operations, Foreword," in *Field Manual 3-0, Operations* (Washington, DC: Government Printing Office, 2017).

¹⁴ Headquarters, Department of the Army, *Unified Land Operations*, 1–2.

complexity and rapid change in the strategic context against threats across range of military operations (ROMO).

This paper contains a brief exploration into the potential for understanding the Army's problem over time using design methodology. The analysis suggests the possibility that the time is approaching to re-evaluate the strategic context and revise the target readiness conditions within the LSCO paradigm for Army future conflict preparation. Design methodology explains the changes in the operational environment, assists in correct problem framing – or reframing – and reveals indicators of changes in the strategic context with implications on reframing the LSCO paradigm. The reasons for the changes in the strategic context are related to the changes in the strategic context between the period of LCO from 2003-2014 and the following period of paradigm shift to LSCO from 2014 to 2017, the resulting problems that emerged during the 2017 to 2020 timeframe, and the Army's ongoing struggle to maintain relevance.

Methodology

In order to substantiate its argument, this monograph will adhere to an outline of the design process as expressed in US Army doctrine, modified with design elements from conceptual writings of design methodology. Figure 1 indicates the Army Design Methodology as outlined in ADP 5-0, *The Operations Process*, dated July 2019. The activities are indicated as a single linear process that proceeds from framing the operational environment to framing the problem to developing an approach and finally a plan. What this process does not include is a means of reframing the desired end state or an analysis of the relevance of the desired end state to

¹⁵ Chris Argyris and Donald A. Schön, *Organizational Learning: A Theory of Action Perspective* (Reading, MA: Addison-Wesley, 1978), 18–20.

the strategic context..¹⁶ This paper describes a design process modified to include these two activities, depicted in Figure 2.

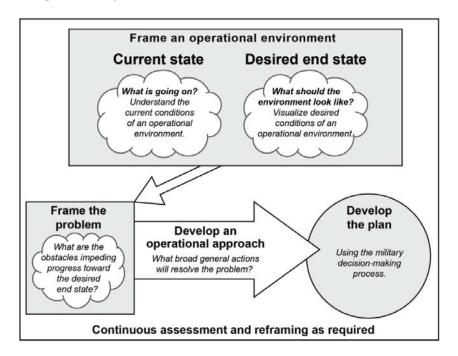


Figure 1. Activities of Army Design Methodology, Headquarters, Department of the Army, The Operations Process, Army Doctrinal Publication 5-0 (Washington, DC: Government Printing Office, 2019), 2–17.

This paper will employ design methodology to describe the relationship between conditions in the strategic context as the observed system, and the LSCO paradigm as a desired system. The terms "observed system" and "desired system" replace the words "current state" and "desired end state" because the operational environment is not static, but derived from an understanding of change over time. ¹⁷ The new terms connote the systemic nature of the operational environment and suggest the fluidity of interactions between relevant factors. ¹⁸ The design practitioner compares the two elements of the operational environment, the observed

¹⁶ Headquarters, Department of the Army, *Army Design Methodology*, Army Techniques Publication 5-0.1 (Washington, DC: Government Printing Office, 2015), 6–2, 6–3.

¹⁷ Jeffrey M. Reilly, *Operational Design: Distilling Clarity from Complexity for Decisive Action* (Maxwell Air Force Base, AL: Air University Press, 2012), 5–7.

¹⁸ Ibid.

system and the contrasted system, and attempts to understand the differences by answering the following questions:

What is the difference? Why is there a difference? What is the origin or source of the difference?¹⁹

The process of understanding change in the operational environment reveals a strategic logic with which to construct a single narrative that will unify the efforts of the organization. ²⁰ From the narrative, the practitioner frames the problem by constructing the problem statements appropriate to the scope and scale of the actors involved. ²¹ Once the practitioner has developed his or her appreciation for the problem into an operational approach, it is critical to re-assess the understanding of the operational environment to the problem statement and confirm that the problem frame is still relevant to the operational environment. ²² In other words, the practitioner asks, "is it possible to affect change in the observed system towards my desired system or paradigm using the available means?" The design process proceeds within the framework of the problem into detailed planning that produces instructions for subordinate organizations. The resulting actions will have a result evident in the observed system which must then be observed, and the practitioner returns to the process of evaluating the observed system while subordinate organizations carry out the instructions.

On the other hand, if the operational environment has changed significantly from what the practitioner understands and the comparison of the observed system with the contrasted

¹⁹ School of Advanced Military Studies, *Art of Design: Student Text Version 2.0* (School of Advanced Military Studies, 2010), 216.

²⁰ Huba Wass de Czege, "Systemic Operational Design: Learning and Adapting in Complex Missions," *Military Review* 89, no. 1 (February 2009): 8, accessed 25 February 2020, http://web.b.ebscohost.com/ehost/detail/vid=3&sid=da71a97f-597b-45e2-90ba-6aec60d513c2%40sessionmgr102&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl.

²¹ Ibid., 8, 10.

²² Headquarters, Department of Defense, *Planners Handbook for Operational Design* (Suffolk, VA: Joint Staff, 2011), VI–5; Reilly, *Operational Design*, 14.

system is no longer consistent with previous perspectives, the practitioner must re-evaluate the problem statements to determine their relevance. ²³ If the practitioner identifies that the available means or designated ways cannot or will not achieve the desired aims as described in the contrasted system, the practitioner proceeds to investigate the problems within the contrasted system, and identifies ways which the contrasted system must be changed to align with available ways and means. This paper will use the general LSCO paradigm as the contrasted system and demonstrate why the Army must realign the target paradigm with the strategic context, the observed system, by adjusting target preparation conditions towards relevant threats, whether these conform to the LSCO paradigm or not.

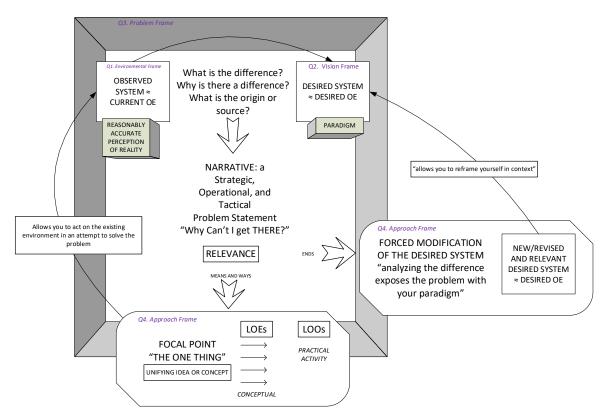


Figure 2. The Design Process (modified), developed by the author.

²³ Headquarters, Department of the Army, Army Design Methodology, 6–2.

Understanding Change in the Army from 2003 to 2014

In order to demonstrate the origins of the current problem, it is necessary to employ design methodology and identify the critical factors in the strategic context that contributed to them. The complexity of the changing context is demonstrated in the interconnected relationships between United States politics, the US Army, and the competitor nations identified in the NSS. The aggregate result of these conditions was the operating concept under which the Army used the LSCO paradigm as its metric of readiness. Figure 3 illustrates these conditions as factors in the strategic context for the time period in which the Army began its major shift of paradigm, 2014 to 2017. The trends that culminated in the 2014 to 2017 timeframe originate in the Army conditions, the United States politics that shape them, and the interconnected actions of competitor nations that emerged between 2003 and 2014.

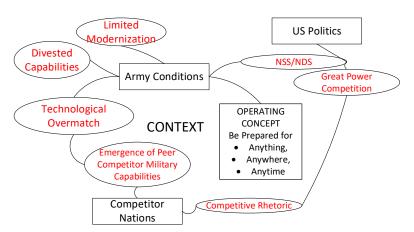


Figure 3. Term 2014-2017 Factors in the Strategic Context.

Army Conditions Emerging from Limited Contingency Operations

The 2014 emergence of competitor nation military capability and technological overmatch created tension within the US Army, which was operating under conditions that evolved out of LCO. Beginning in 2003, the Army had begun to modernize equipment in order to

meet emerging needs in Iraq and Afghanistan. Vehicles were inadequately armored, command and control on the battlefield was hindered due to the expansive nature of stability operations, and the Army struggled to redefine itself from a conventional battlefield Army to a massive security assistance force. ²⁴ In response, the Army dramatically shifted capabilities development projects to meet the emergent needs of limited contingency operations. ²⁵ Modernization efforts from 2003 to 2014 focused on the creation of battlefield digital networks, and increased mobility and survivability against improvised explosives, rocket propelled grenades, and explosive shaped charges. ²⁶ Operational formations became heavily reliant on satellite-based capabilities and bulky digital command platforms that reduced the mobility of command posts. ²⁷ Uncontested air supremacy throughout the battlefield led to a decreased emphasis on air defense missile systems ultimately resulting in divestiture of equipment and decreased accessions among Soldiers in those specialty fields. ²⁸ The Army produced stationary radar and artillery platforms that supported fixed combat outposts indicated a forward operating base paradigm common to long-term

²⁴ Walter L. Perry et al., *Operation Iraqi Freedom: Decisive War, Elusive Peace*, ed. Walter L. Perry et al. (Santa Monica, CA: RAND Arroyo Center, 2015), 247–260, 261–263; Eric Schmitt, "Iraq-Bound Troops Confront Rumsfeld Over Lack of Armor," *The New York Times*, 8 December 2004, sec. World, accessed 24 February 2020, https://www.nytimes.com/2004/12/08/international/middleeast/iraqbound-troops-confront-rumsfeld-over-lack-of.html.

²⁵ An Assessment of U.S. Military Power: U.S. Army, The 2020 Index of U.S. Military Strength (Washington, DC: The Heritage Foundation, 30 October 2019), 330, accessed 29 February 2020, https://www.heritage.org/military-strength/assessment-us-military-power/us-army.

²⁶ 2007 Army Modernization Plan (Headquarters, Department of the Army, Office of the Deputy Chief of Staff, G-8, 2007), 8–9, 28, 60, 86–89, accessed 16 March 2020, https://ia801000.us.archive.org/7/items/DTIC_ADA468000/DTIC_ADA468000.pdf; 2010 Army Modernization Strategy, 7–9, 14, 20, 23, 43–44.

²⁷ Mark Pomerleau, "The Army Wants to Ensure Its Command Posts Aren't an Easy Target," *C4ISRNET*, last modified 22 January 2018, accessed 16 March 2020, https://www.c4isrnet.com/c2-comms/2018/01/19/the-army-wants-to-ensure-its-command-posts-arent-an-easy-target/; Walter Pincus, "Hearings Show Our Dependence on Military Space Technology," *Washington Post*, 30 March 2012, sec. National Security, accessed 16 March 2020, https://www.washingtonpost.com/world/national-security/hearings-show-our-dependence-on-military-space-technology/2012/03/24/gIQANVV8cS_story.html.F

²⁸ Andrew Feickert, *U.S. Army's Initial Maneuver, Short-Range Air Defense (IM-SHORAD) System* (Federation of American Scientists, Congressional Research Service, 18 July 2018), accessed 16 March 2020, https://fas.org/sgp/crs/weapons/IN10931.pdf.

stability operations. Signals intelligence collection systems transitioned from signals detection of combat formations to triangulation of individual cellular phones with an accompanying shift in human intelligence collection.

The US Army was technologically and militarily superior to threat forces faced in Iraq and Afghanistan from 2003-2014, encouraging an LCO paradigm wherein the Army functioned under the protection of forward operating bases with uncontested air supremacy. The trend created by these conditions leading up to the 2014-2017 timeframe was that modernization programs created capabilities that proved not to be scalable as the intensity of conflict increases towards LSCO along the ROMO. Thus, the narrative of the US Army asserts under the LSCO paradigm is to "be prepared to defeat and deter highly capable adversaries while disrupting violent extremist organizations and simultaneously defending the homeland." ²⁹ The Army Modernization Strategy, 2019, reflects this narrative through the six Army modernization priorities: long range precision fires, next generation combat vehicles, future vertical lift, network, air and missile defense, and Soldier lethality. ³⁰

Actions and Posturing of Competitor Nations

In 2014, Russia invaded the Ukraine with staggering efficiency, revealing hitherto unrecognized improvements in their organizational structure and tactics. ³¹ Capabilities displayed by Russia in 2014 included deploying short range man portable air defense systems, artillery and rocket systems with greater range than those of the United States or its allies, and the integration of information and unconventional warfare campaigns. Russia's new capabilities implied

²⁹ Office of the Director of the Army Staff, 2020 Army Posture Statement (Office of the Director of the Army Staff, 13 March 2020), 1–2, accessed 17 March 2020, https://www.army.mil/standto/archive_2020-03-13/.

³⁰ 2019 Army Modernization Strategy (Headquarters, Department of the Army, Office of the Chief of Staff, 2019), 2.

³¹ Asymmetric Warfare Group, *Russian New Generation Warfare Handbook*, 1st ed. (Asymmetric Warfare Group, 2016), iii–iv, 21, accessed 22 September 2019, https://info.publicintelligence.net/AWG-RussianNewWarfareHandbook.pdf.

strongly that it had emerged with the potential to overmatch the United States in ground combat. Shortly afterward, the Department of Defense recognized a widening gap between United States military capabilities and those of other nations whose modernization efforts had not focused solely on limited contingency operations such as counterinsurgency or security force assistance. The Army's Combined Arms Center (CAC) analyzed the existing capabilities in the US Army to determine the potential shortfalls that would prevent the Army from accomplishing its role in fulfilling national strategic guidance. The results of their analysis revealed significant gaps that would put the Army at immediate risk should a LSCO conflict erupt. Growing concern over these modernization and capability gaps led the Army to quickly reprioritize \$31 billion in projects toward restoring the US Army's abilty to fight and win in LSCO over the 2020-2025 Future Years Defense Program, the projection of the forces, resources, and programs in order to support Department of Defense operations.

United States Politics Interconnect with Great Power Competitors

Great power competitors created further tension and emphasized the competitive nature of the strategic context. Increasingly hostile political rhetoric threatened to destabilize the current

³² Jen Judson, "Modernization Reborn: Army Pushes for Total Overmatch," *Defense News*, last modified 11 October 2017, accessed 16 March 2020, https://www.defensenews.com/digital-show-dailies/ausa/2017/10/11/modernization-reborn-army-pushes-for-total-overmatch/; Colin Clark, "Army Anti-Aircraft Stryker Can Kill Tanks Too," *Breaking Defense*, 10 July 2018, accessed 16 March 2020, https://breakingdefense.com/2018/07/army-anti-aircraft-stryker-can-kill-tanks-too/.

³³ Asymmetric Warfare Group, Russian New Generation Warfare Handbook, iii-iv, 21.

³⁴ Tisha Swart-Entwistle, "Lundy Retires, Becoming Senior Mentor," *Fort Leavenworth Lamp*, 16 January 2020, accessed 24 February 2020, https://www.ftleavenworthlamp.com/community/2020/01/16/lundy-retires-becoming-senior-mentor/.

³⁵ Rich Creed and Nathan Jennings, "Is Our Army Again Optimized for Defeat?," *Association of the United States Army*, last modified 30 May 2019, accessed 24 February 2020, https://www.ausa.org/articles/our-army-again-optimized-defeat.

³⁶ Mark F. Cancian, "U.S. Military Forces in FY 2020: Army," *Center for Strategic & International Studies*, 8, last modified 15 October 2019, accessed 29 February 2020, https://www.csis.org/analysis/us-military-forces-fy-2020-army.

world order under United States leadership.³⁷ North Korea and Iran escalated missile tests and nuclear research, publicly denouncing the United States as a threat to their national well-being.³⁸ Russia claimed NATO as a threat to Russian national security and closely controlled its media to maintain an anti-American narrative.³⁹ China's economic policies to ensnare smaller nations with predatory lending, initiating the Asian Infrastructure Investment Bank as an alternative to the US-led World Bank, and increasingly controversial claims over maritime territory in the South China Sea.⁴⁰ From this strategic context emerged a realist expectation that the Army must increase capacity and capability to maintain the credibility of military dominance in foreign policy.⁴¹

Army Reorientation towards LSCO

The LSCO doctrine published in FM 3-0 in 2017 evolved out of recognition of widening capability gaps between the observed state of defense affairs and the contrasted, or desired, state needed to win a large-scale war. Between 2017 and 2020, the United States military analyzed itself within the strategic context of Great Power Competition, increasing complexity, and

³⁷ James Dobbins, Howard J. Shatz, and Ali Wyne, *Russia Is a Rogue, Not a Peer; China Is a Peer, Not a Rogue: Different Challenges, Different Responses* (Santa Monica, CA: RAND Corporation, 2019), accessed 16 March 2020, https://www.rand.org/pubs/perspectives/PE310.html.

³⁸ "Iran's Nuclear Program Timeline and History," *Nuclear Threat Initiative*, last modified January 2020, accessed 5 April 2020, https://www.nti.org/learn/countries/iran/nuclear/; Missile Defense Project, "Missiles of North Korea," Center for Strategic and International Studies, *Missile Threat*, last modified 14 June 2018, accessed 5 April 2020, https://missilethreat.csis.org/country/dprk/.

³⁹ Bryan A. Frederick, *Assessing Russian Reactions to U.S. and NATO Posture Enhancements* (Santa Monica, CA: RAND, 2017), xii–xiii, 54–55.

⁴⁰ Mark Green, "China's Debt Diplomacy," *Foreign Policy*, 25 April 2019, accessed 5 April 2020, https://foreignpolicy.com/2019/04/25/chinas-debt-diplomacy/; Lily Kuo, "All of the Countries Joining China's Alternative to the World Bank," *Quartz*, last modified 30 March 2015, accessed 5 April 2020, https://qz.com/372326/all-the-countries-that-are-joining-chinas-alternative-to-the-world-bank/; Hannah Beech, "South China Sea: Where Did China Get Its Nine-Dash Line?," *Time.Com*, last modified 19 July 2016, accessed 5 April 2020, https://time.com/4412191/nine-dash-line-9-south-china-sea/.

⁴¹ Justin Lynch, "The Myth of American Military Dominance," *War on the Rocks*, last modified 15 August 2019, accessed 17 March 2020, https://warontherocks.com/2019/08/the-myth-of-american-military-dominance/.

emerging threat capabilities against the paradigm of potential large-scale conflict. ⁴² In analyzing the functions necessary to achieve large scale ground combat against a peer competitor, the Army recognized that modernization efforts were too focused on counterinsurgency, that capability gaps existed, and that the size of the force was inadequate. ⁴³ The resulting efforts in the US Army to

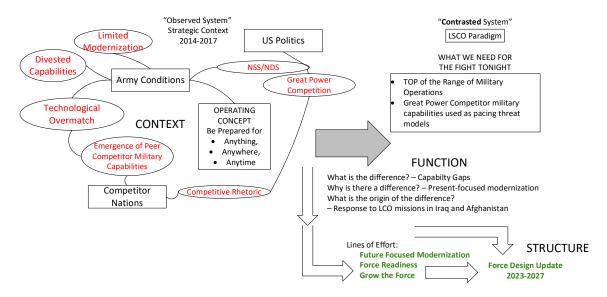


Figure 4. Conditions in the strategic context, 2014-2017, contrasted with the LSCO paradigm produce efforts to redesign the force.

prepare for LSCO focus on future force modernization - capabilities, and increased force readiness including growing the size of the force - capacity. 44 The first activities to move Army capabilities into alignment with the LSCO paradigm include structural revisions to Force Design Updates in 2020 which could re-introduce formerly divested capabilities as early as 2023. 45 The

⁴² Scott R. Gourley, "Closing the Capabilities Gap: Seven Things the Army Needs for a Winning Future," *Association of the United States Army*, last modified 13 January 2017, accessed 17 March 2020, https://www.ausa.org/articles/closing-capabilities-gap-seven-things-army-needs-winning-future.

⁴³ An Assessment of U.S. Military Power: U.S. Army, 325, 327, 329–330.

⁴⁴ An Assessment of U.S. Military Power, The 2020 Index of U.S. Military Strength (Washington, DC: The Heritage Foundation, 30 October 2019), 315, accessed 17 March 2020, https://www.heritage.org/military-strength; Office of the Secretary of the Army, *The Army Strategy 2018* (Washington, DC, 10 October 2018), 5–8, accessed 17 March 2020, https://www.army.mil/e2/downloads/rv7/the_army_strategy_2018.pdf.

⁴⁵ Cavalry Force Structure Considerations for Total Army Analysis, 30 April 2019.

Army has also announced a need for a standing Army of 500 thousand. Figure 4 illustrates the comparison of the observed system, the aggregate of changes over the period of 2014-2017, with the LSCO paradigm, that resulted in decisions to alter the structure and function of Army forces.

The Target Paradigm for Future Conflict

Efforts to modernize towards the LSCO paradigm, including the massive reorganization of Army acquisitions and modernization efforts under the new Army Futures Command in 2018, focused on integrating emerging concepts and technologies faster in response to the increasing level of complexity in the strategic context.⁴⁷ Figure 5 illustrates the divergence between the red line indicating the Army's focus along LCO centric modernization and the blue line indicating the Army's shift toward Great Power Competition (LSCO) centric modernization. The red line in Figure 5 represents the progress of Army modernization focused on support the Army Force Regeneration cycle in support of limited contingency operations in Iraq and Afghanistan relative to the developing complexity in the strategic context.⁴⁸ In 2019, the Army announced its intention to transform itself according to its new concept, Multi-Domain Operations (MDO), to compete in LSCO in a single MCO theater by 2028 and across multiple MCO theaters by 2035.⁴⁹ According to current publications regarding the its ongoing development, the MDO construct includes concepts intended to converge Army capabilities with those of sister services and national agencies for the purposes of reducing anti-aircraft and area denial systems that would prevent United States military success in LSCO.⁵⁰ This indicates the Army's intention to continue

⁴⁶ An Assessment of U.S. Military Power: U.S. Army, 327.

⁴⁷ Cancian, "U.S. Military Forces in FY 2020," 3, 8–9; 2019 Army Modernization Strategy, 2–3.

⁴⁸ 2010 Army Modernization Strategy, 3.

⁴⁹ 2019 Army Modernization Strategy, 1.

⁵⁰ Headquarters, Department of the Army, *The US Army in Multi-Domain Operations* 2028, TRADOC Pamphlet 525-3-1 (Washington, DC: Government Printing Office, 2018).

preparing for LSCO under the MDO operations doctrine and implies that LSCO will remain the lens through which the Army prepares for future conflict so long as Great Power Competition is the driving ideology behind national strategy.

Figure 5 also indicates a zone of potential future conflict. Guidance to Army organizations consistently instructs them to prepare for LSCO according to a mission that prescribes a need respond to "any adversary, anytime, anywhere." This conceptually expands the possible occurrence of potential conflict into an infinite realm of the unknown, but it includes at least everything below the climbing level of complexity indicated by the broken black line at the time of occurrence. Figure 5 indicates a future scenario in which the Army has prepared according to a target paradigm of what the Army thinks conflict will look like at the time of future conflict. Figure 5 also represents an assumption that the target level of Army modernization built on the LSCO paradigm and carried into the MDO operating concept, indicated by the blue line, will fall short of adequately preparing the Army for conflicts occurring at the future level of complexity.

This assumption is based on analysis that suggests the growth of Army modernization programs will not be able to mature to the degree called for by the Trump administration because of a lack of real growth in defense budget projections for the next few years. Should these projections prove correct, the Department of Defense and the Army within it will find itself struggling to align forces with strategy. The purpose of this assumption is to illustrate what might happen should the target paradigm of Army preparation fail to coincide with the strategic context at the time of future conflict.

⁵¹ "The Army Team Is Versatile, Adaptable and Ready for Anything," *Goarmy.Com*, accessed 24 February 2020, https://www.goarmy.com/army-team.html; Harrison "Brandon" Morgan, "How Small Units Can Prepare for Large-Scale Combat Operations," *Army Times*, last modified 13 February 2020, accessed 24 February 2020, https://www.armytimes.com/2020/02/13/how-small-units-can-prepare-for-large-scale-combat-operations/.

⁵² Cancian, U.S. Military Forces in FY 2020: The Struggle to Align Forces with Strategy., VIII.

⁵³ Ibid., 6.

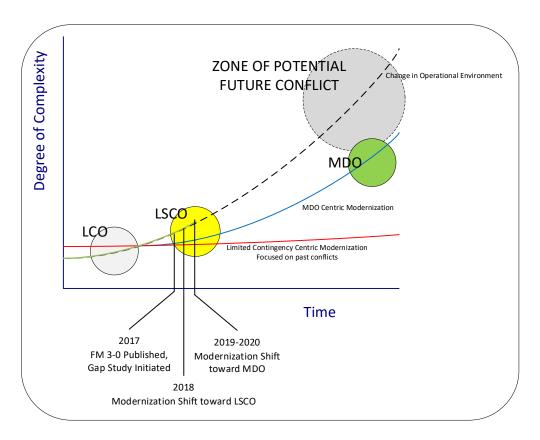


Figure 5. Chart indicating time periods of Army preparation paradigms

Identifying Problems in the Strategic Context

The world has already changed in the time since the Army began the transition towards a LSCO paradigm. Conditions in the strategic context have shifted such that factors which were legitimately important a few years ago may have become less relevant today, causing the space between our future state of readiness and the zone of potential future conflict to widen. The strategic problem remains, however: the Army must ensure its target system is appropriate and relevant to the future zone of conflict.

The future state of conflict represented by the LSCO paradigm is based on the continuance over time of Great Power Competition thinking as outlined in the 2017 NSS. The consequent logical conclusion assumed by Army organizations is that meeting the Chief of

Staff's aim of readiness means preparation for LSCO against a great power competitor. Planning efforts based on this assumption have led the Army at large to see itself as preparing for the next great land war, presumably against Russia, China, or some other competitor nation whose current policies defy Western convention and whose efforts to build military capabilities may be interpreted as hostile intent. This assumption, however, is tied to a relevance gap between the internally focused paradigms currently in use by the US Army and the unrecognized worldview that represents the actual intentions, policies, and worldviews of our great power competitors.

As a tool for understanding complexity, the design process aids the practitioner in understanding the strategic context in which the US Army must fulfill its mission, to "deploy, fight and win against any adversary, anytime and anywhere, by providing ready, prompt and sustained land dominance." ⁵⁴ Specifically, observing trends in the strategic context reveals potential inconsistency between the Army's stated mission and the Army's current and near-term capabilities. Among these trends, constraints to growth, conflicting requirements, and internal political disharmony prohibit the dedication of enough forces for the kind of high-end, large-scale ground war anticipated by senior Army leaders. Synthesis of these trends into an understanding of Army limitations has serious implications for policy makers regarding the use of military force as a means of national power.

Resource Scarcity Restricts Expectations of Army Capacity and Capability

Observable trends in Army modernization and accessions prohibit the dedication of forces to preparation for LSCO against a great power competitor. The trend sometimes referred to as 'no-growth' or 'zero-growth' within the institutional Army refers to the developing situation in Army accessions wherein a combination of strategic factors have left the Army unable to grow

⁵⁴ "The Army Team Is Versatile, Adaptable and Ready for Anything."

in capacity to the desired size. ⁵⁵ The Army first realized the problem in 2018 when it was unable to meet an admittedly ambitious recruiting goal of 80,000 new Soldiers. ⁵⁶ In the years that followed, the Army set more modest recruitment goals, a decision which coincided with studies that demonstrate a potentially dangerous reduction in the number of those eligible and willing to volunteer for service to only twenty-five percent of Americans aged 17-24. ⁵⁷ Social conditions such as obesity, lack of education, and crime have degraded America's strategic labor pool in which Army recruiters must compete for a shrinking demographic against employers in the civilian sector.

In addition to the strategic crisis within among qualified and available volunteers, the Army is committed to ongoing missions and initiatives that contribute to a reduction in available forces for LSCO missions. General Mark Milley, Chairman of the Joint Chiefs of Staff, noted in his 2020 posture statement the deployment of 179,000 Soldiers in over 140 countries, with 110,000 deployed on a rotational basis, and 30,000 of which were in the Middle East and Afghanistan. Among these ongoing missions are Security Force Assistance Brigades, an experimental Multi-Domain Task Force under 7th Infantry Division, and Regionally Aligned Forces missions to Europe. This is important both because of the heavy cost in manpower and equipment, but also because of the broad range of capabilities required from lower-technology conflicts in Afghanistan to high-end deterrence in Europe.

⁵⁵ "Interview with TRADOC FDD Planners.," October 2019.

⁵⁶ Meghann Myers, "The Army Missed Its End Strength Goal This Year. Can It Make up the Setback?," *Army Times*, last modified 8 October 2018, accessed 8 February 2020, https://www.armytimes.com/news/your-army/2018/10/08/the-army-missed-its-end-strength-goal-this-year-can-it-make-up-the-setback/.

⁵⁷ Thomas Spoehr and Bridget Handy, *The Looming National Security Crisis: Young Americans Unable to Serve in the Military* (Washington, DC: The Heritage Foundation, 13 February 2018), 3, accessed 5 April 2020, https://www.heritage.org/defense/report/the-looming-national-security-crisis-young-americans-unable-serve-the-military.

⁵⁸ Cancian, "U.S. Military Forces in FY 2020," 7.

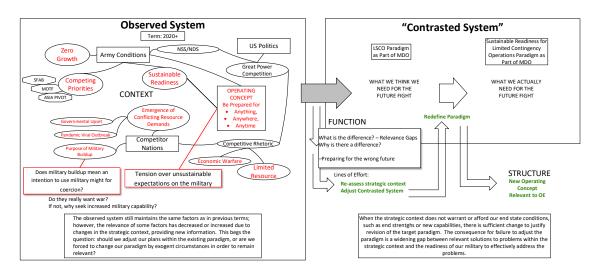


Figure 6. Additional factors gain relevance in the strategic context

Synthesis: Trends Reveal an Inability to Reach the Desired System

Given the previously discussed concerns, one suggested conclusion is that preparation for LSCO may be unrealistic as a target paradigm because of the difficulty in generating the force structure necessary to stand ready for a multi-front large-scale ground war while leveraging the Army as a security assistance force elsewhere in the world. This does not mean the LSCO paradigm is irrelevant to the preparation of United States forces for future conflict. It does, however, offer a sobering realization that the United States and its allies cannot support political rhetoric with credible deterrence against aggression such as anticipated Russian incursion into NATO countries in the Baltic region.⁵⁹ It also stands in stark contrast to the Army's mission to be prepared for anything, anywhere, at any time, since the United States Army does not appear capable of meeting either the capacity the demands the high-end kind of conflict would require until, at the earliest, 2028. Ultimately, as depicted in Figure 6, the Army must factor in these trends and revise the target readiness conditions to be feasible. In terms of design methodology,

⁵⁹ Schlapak and Johnson, Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics, 3.

this could represent a need to reframe some of those conditions and compel the Army to revise its understanding of the LSCO paradigm if it is to maintain preparation for an emergent MCO concurrent to ongoing operations.

Framing the Problem: Aligning the LSCO Paradigm with Future Conflict

Between 2020 and an undetermined future date, the Army expects the United States to enter into a state of military conflict requiring mass mobilization and deployment in support of national interests. ⁶⁰ This assumes that existing limited contingency operations in Iraq, Syria, Afghanistan, and elsewhere do not meet this expectation. ⁶¹ The problem the Army will face is that the operating concept, MDO with inherent assumptions of LSCO, may not be relevant to the future state of conflict. ⁶² This will be dangerous if the Army does not adjust preparation efforts according to trends in the strategic context, but rather unwaveringly prepares in accordance with current national strategic direction. ⁶³ If the Army has correctly evaluated the operating environment and successfully shifted its modernization effort such that the state of preparedness falls within the scope and scale of the future conflict, conditions should be set for the Army of the future to adapt quickly to the conflict with the systems and processes established in the interwar period. ⁶⁴ This is depicted in figure 7 B, the desired system wherein the blue line representing the

⁶⁰ Office of the Director of the Army Staff, 2020 Army Posture Statement, 4.

⁶¹ Linda Robinson et al., "Finding the Right Balance: Department of Defense Roles in Stabilization," Product Page (RAND Corporation, 2018), 15, last modified 2018, accessed 5 April 2020, https://www.rand.org/pubs/research_reports/RR2441.html.

⁶² Joseph S. Nye, "Is Military Power Becoming Obsolete?," *The Korea Times* (13 January 2010), accessed 5 April 2020, https://www.belfercenter.org/publication/military-power-becoming-obsolete.

⁶³ Cancian, "U.S. Military Forces in FY 2020," 7.

⁶⁴ Here, the term interwar period is used to denote the period between major conflicts and suggests that, while still heavily involved in LCO in the Middle East, the US Army's modernization approach from 2014-2020 more closely resembles the period historically associated with preparation for LSCO.

Army's modernization effort aims at an MDO zone of competence that lands the Army squarely inside the zone of future conflict.

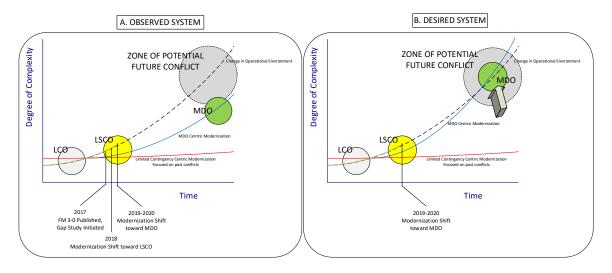


Figure 7. Aligning the Target Paradigm within the Zone of Potential Future Conflict

If, however, the modernization aims fall short of the degree of complexity into which the future conflict falls, Army leadership will have to take the Army at that time, whatever condition it may be in, and dramatically redirect it in order to solve the military problem with available means. As depicted in Figure 7 A, the blue line representing the Army's modernization effort aims at an MDO concept that is outside the future zone of conflict, the result of a sub-relevant concept which has inadequately adjusted to the complexity of changing conditions in the operational environment.

Several potential future scenarios exist which demonstrate the variable level of intensity of the future conflict. Future scenarios presented by stories such as the one in P.W. Singer's novel, Ghost Fleet, demonstrate how present-day complacency can contribute over time to an

⁶⁵ Dana M. Gingrich, "Do Large-Scale Combat Operations Require a New Type of Leader?," *Military Review* 99, no. 5 (October 2019): 134, accessed 25 February 2020, http://lumen.cgsccarl.com/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=138 515786&site=ehost-live&scope=site.

advantage for competitor nations. ⁶⁶ If scenarios wherein Great Powers align and attack the United States such as the one posed in Singer's novel are possible, prudence suggests preparing for them now is the best preventative measure against war. ⁶⁷ Other potential scenarios suggest that Great Power nations will continue to vie for power through proxy engagements such as the ongoing conflict in Syria. ⁶⁸ Still others reflect a similar low-intensity conflict via the internet via cyberwarfare. ⁶⁹ In low-intensity conflict scenarios, the United States military continues to serve across the globe in security force assistance roles such as Operation Resolute Support in Afghanistan according to preserve peace by assisting allied and partner nations. ⁷⁰ The significance of Army actions today is that the preparatory measures must recognize the possibilities and assign priority to those threats perceived as most likely to occur given the scarcity of resource. ⁷¹ The situation within the strategic context is too restrictive to provide adequate forces and time to actually be prepared for anything, anytime, anywhere in the world. Preparing for the wrong future will put the United States back into the situation it faced in 2003 when equipment was inadequate and the proper numbers of Soldiers in the right jobs were

⁶⁶ Peter Warren Singer and August Cole, *Ghost Fleet: A Novel of the Next World War* (New York, NY: Houghton Mifflin Harcourt, 2015).

⁶⁷ Jack David, "Address: If You Want Peace, Prepare for War—U.S. Military Pre-Eminence and Why It Matters," *Hudson Institute*, last modified 8 March 2014, accessed 8 March 2020, http://www.hudson.org/research/10155-address-if-you-want-peace-prepare-for-war-u-s-military-pre-eminence-and-why-it-matters; David Brown, "The Next War Will Be Conventional and All-Out—What Does That Mean?," *ClearanceJobs*, last modified 3 September 2019, accessed 8 March 2020, https://news.clearancejobs.com/2019/09/03/the-next-war-will-be-conventional-and-all-out-what-does-that-mean/.

⁶⁸ Jack Gold, "The Future of Conflict Is Proxy Warfare, Again," *Defense One*, last modified 25 July 2019, accessed 8 March 2020, https://www.defenseone.com/ideas/2019/07/future-conflict-proxy-warfare-again/158697/.

⁶⁹ Yosef Harash, "The Next War Will Happen in the Cybersphere, and Here's What It Will Look Like," *Haaretz*, last modified 6 July 2019, accessed 8 March 2020, https://www.haaretz.com/us-news/.premium-what-a-future-cyberwar-will-look-like-1.7441901.

⁷⁰ Office of the President of the United States of America, *National Security Strategy of the United States of America*, 33, 38.

⁷¹ Andrew Miller, "Can America Afford Its Military?," *The Trumpet*, last modified February 2019, accessed 8 March 2020, https://www.thetrumpet.com/18319-can-america-afford-its-military.

unavailable. Figure 8 adds a third dimension, the ROMO, to the two dimensions presented in figure 5 (page 17) to represent the degree of intensity of future conflict. The graphic now depicts a path in three dimensions from the present toward two potential zones of conflict, one at the low-intensity end indicating the potential for continued limited contingency operations, and the other at the high end of intensity indicating the potential for LSCO. Here, the green circle still indicates the target zone of preparation but is portrayed as falling short and somewhere between the two zones of potential future conflict.

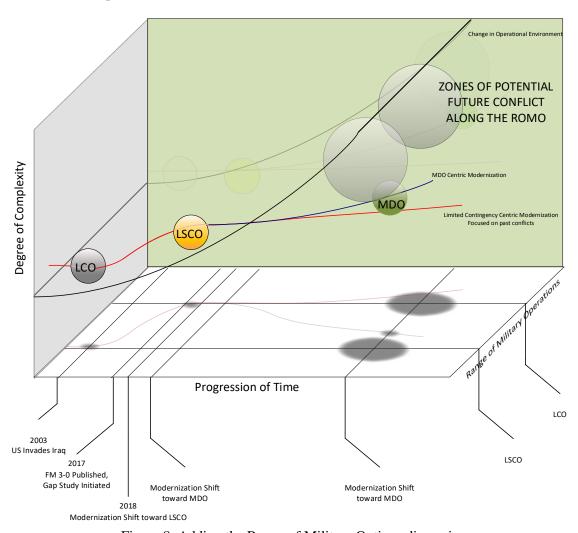


Figure 8. Adding the Range of Military Options dimension

Indicators Implying a Possible Need to Reframe

The target paradigm used to align US Army forces efforts to prepare for future conflict may need revision through reframing based on an updated understanding of the conditions that the United States military currently faces within the strategic context. Given an understanding of the strategic context and how the aggregate of changes affects the Army's ability to reach the LSCO paradigm, there are implications inherent in marketing the LSCO paradigm as a means of unifying the support of the American people. The narrative asserted in favor of creating the Army into an organization that fits the LSCO paradigm results in an internal mindset among its leaders that carries a potential for cognitive bias.

Narrative to positively influence the perception of the people

The Army faces dramatic challenges raising and maintaining an Army capable of meeting the strategic direction outlined in the 2017 NSS. It addresses these challenges by harnessing the attention of the American people to an idea of the Army doing what it does best: defending the American way of life through massive, rapid, decisive military victory against the military of an aggressor nation. The prolonged conflicts in Iraq and Afghanistan have propagated a narrative of ineffective military action, lack of preparation, and a trend toward employing the United States military where it does not belong. In fact, the United States military seems to have adeptly transformed itself to address the problems created by hasty political decisions from 2003-2010 only to find itself primarily dedicated to the problems of counterinsurgency. Inundated by messages emanating from the political framework of Great Power competition, the people of the United States fixate on potential future scenarios where competitor nations must use military force to compete for scarce resources. In that kind of zero-sum environment, the US Army of today compared to competitor nation militaries seems lacking and must get ready to protect American interests for what seems like an inevitable conflict over control over the world

economy, supply chains, and life sustaining resources. Add to it the backdrop of unsustainable business practices, growing populations, reliance on single-source providers for critical minerals or technologies, and numerous other side effects to globalization and the sense of imminent conflict seems a forgone conclusion.

The marketing effort in the US Army is evidence of the systemic impacts of the Great Power competition narrative as the dominant sense-making model adopted by the American people. Within that market space, the Army must construct a narrative that puts the Army into a necessary role such that calls for support from Congress and the American people will resonate with the idea that the Army that can beat the other armies will be critical to the safety and survival of themselves and their prosperity. The US Army cannot afford to recruit based on the role it filled during the Iraq and Afghanistan conflicts because the image of the Army ineffectively attempting to solve the problems of failed states or rogue nations does not attract talented recruits. Within the strategic context of a dwindling pool of available candidates for recruiting or the draft, the Army must recreate itself into an agency that attracts the qualified away from less dangerous civilian jobs. To do that, it demonstrates relevance to the perception within the zero-sum environment that the Army will subsist as a pillar of social order against foreign coercion. How better to do that than to re-brand the Army in the image of the Army of World War II, when the United States undeniably led the world in the direction of peace against a tyrannical, militant threat bent on securing living space and resource. The sum of the Army in the image of the Army of tyrannical, militant threat bent on securing living space and resource.

Risks of Internalizing a Narrowing Army Worldview

General officers in the US Army seem unlikely to announce a deliberate intention on the part of the United States to engage in a LSCO war with any great power competitor nation. Yet, they would be remiss in meeting CSA guidance for readiness if they did not direct Army

⁷² David Stahel, *Operation Barbarossa and Germany's Defeat in the East* (New York: Cambridge University Press, 2009), 95–104.

organizations towards preparedness for LSCO as the most dangerous possible scenario responding to the belligerence of a great power competitor, regardless of their personal appraisal of the global situation.⁷³ A logical assumption stemming from this effort is that preparing for LSCO enables Army organizations to confidently set conditions for any probable scenario, particularly the continuation of limited contingency operations in cooperation with partner nations to maintain relative peace as the global situation evolves.⁷⁴

One problem with the assumption that preparing for LSCO will set the proper conditions to rapidly redirect modernization efforts is that Army organizations may confuse the degree of complexity in the global situation with the degree of military capability necessary to prepare for future conflict. The argument progresses as follows. First, a Great Power competitor strives for and achieves formidable peer-level military capabilities. The United States subsequently realizes the potential for competitor nation military expansion to threaten United States national power. United States policymakers suggest competitor nation military expansion may be used to threaten American interests abroad with effects felt at home. The US Army must attain overmatch, either by means of combined strength with allied powers or within the US Department of Defense to ensure swift, decisive victory. Capability gaps must be filled in order to be prepared for future conflict with that competitor nation, or overcome through adaptive

⁷³ Meghann Myers, "Chief: The Army Has to Start Preparing for 'the Big War," *Army Times*, last modified 23 January 2018, accessed 16 March 2020, https://www.armytimes.com/news/your-army/2018/01/17/chief-the-army-has-to-start-preparing-for-the-big-war/.

⁷⁴ Ibid.; Robinson et al., "Finding the Right Balance," 15.

⁷⁵ Office of the Secretary of the Army, *The Army Strategy 2018* (Washington, DC, 10 October 2018), 3, para. E, accessed 17 March 2020, https://www.army.mil/e2/downloads/rv7/the_army_strategy_ 2018.pdf; Office of the Director of the Army Staff, 2020 Army Posture Statement (Office of the Director of the Army Staff, 13 March 2020), 1, accessed 17 March 2020, https://www.army.mil/standto/archive_2020-03-13/.

⁷⁶ An Assessment of U.S. Military Power: U.S. Army, 329.

⁷⁷ Office of the President of the United States of America, *National Security Strategy of the United States of America*, 2–3.

⁷⁸ Ibid., 7–11.

⁷⁹ Creed and Jennings, "Is Our Army Again Optimized for Defeat?"

leaders..⁸⁰ The resulting strategic documentation compels United States defense agencies assume a defensive posture against competitor nations based on United States policy.⁸¹ Given a stated goal to achieve capability overmatch, peer competitor military capabilities are considered pacing threats to drive modernization programs.⁸² Comparisons of the US Army with militaries in competitor nations reveals capability gaps.⁸³ Capability gaps between the US Army and competitor nation militaries represent vulnerabilities during eventual LSCO.⁸⁴ Army organizations assume preparation for LSCO according to these modernization programs implies a readiness standard for war against a competitor nation's military.⁸⁵ The conclusion of the argument is that the US Army grows, trains, and modernizes to prepare for LSCO with competitor nations whose overmatch capabilities represent the greatest threats to mission success in ground combat, and achieving and maintaining overmatch represents the greatest deterrent to unwarranted aggression from rogue or competitor nations.⁸⁶

The conclusion is logical but may be missing an awareness of the internal conditions of the competitor nations, such as their perceptions of United States military buildup and what that might mean to them with respect to deterrence.⁸⁷ The argument assumes competitor nation

⁸⁰ Gingrich, "Do Large-Scale Combat Operations Require a New Type of Leader?"

⁸¹ Jen Judson, "What Risks Is the US Army Taking to Prep for Future Warfare?," *Defense News*, last modified 12 October 2019, accessed 24 February 2020, https://www.defensenews.com/digital-show-dailies/ausa/2019/10/14/what-risks-is-the-us-army-taking-to-prep-for-future-warfare/.

⁸² Jeanette Steele, "Marine Commandant Speaks to Students About Future Strategy," *Navy.Mil*, last modified 21 October 2019, accessed 25 February 2020, https://www.navy.mil/submit/display.asp? story_id=111186.

⁸³ An Assessment of U.S. Military Power: U.S. Army, 329.

⁸⁴ Creed and Jennings, "Is Our Army Again Optimized for Defeat?"

⁸⁵ Courtney McBride, "Wesley: Russia Offers 'pacing Threat' for Army Modernization Efforts," *InsideDefense.Com*, last modified 1 November 2016, accessed 25 February 2020, https://insidedefense.com/daily-news/wesley-russia-offers-pacing-threat-army-modernization-efforts.

⁸⁶ John Glaser, "Withdrawing from Overseas Bases: Why a Forward-Deployed Military Posture Is Unnecessary, Outdated, and Dangerous," *CATO Institute*, last modified 18 July 2017, accessed 17 March 2020, https://www.cato.org/publications/policy-analysis/withdrawing-overseas-bases-why-forward-deployed-military-posture.

⁸⁷ Lynch, "The Myth of American Military Dominance"; Ray Finch, "How the Russian Media Portrays the U.S. Military," *Military Review* (August 2019), accessed 17 March 2020,

military growth is a challenge the United States and its allies and responds according to a modernist epistemology: measuring readiness with quantifiable power in order to use the military as the "big stick." ⁸⁸ While this is a valid perspective and possibly necessary, it does not ensure that the target state of preparation adopted by the US Army will align with the zone of potential conflict without analysis and comparison against the perspectives of competitor nations and the viability of military force as a deterrent. ⁸⁹

Another deficiency in the LSCO mindset is the heavy focus on training for warfighting tasks and the marginalization of tasks which frequently fall on the Department of Defense to support but don't fit within the designed intent of the joint services. In terms of the Army, this includes the numerous operations involving military commanders as interim governors during post-war operations. The unfortunate side effect of preparing for combat is that the enormous focus of energy on support to combat operations may distract military commanders from planning for the activities that follow. A good historical example is the case of General Tommy Franks, who recused himself of the responsibility for planning for military governance after the Iraq war on the grounds that it was the job of the State department to step in once the military objectives for the conflict had been met. This perspective, the separation of military tasks from tasks associated with diplomacy or governance, conflicts with the perspective that the Department of Defense should do much more than the skill sets outlined in its tables of organization as it is the most capable and well-resourced arm of United States policy execution.

.

https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/July-August-2019/Finch-Russian-media/.

⁸⁸ Eliot A. Cohen, *The Big Stick: The Limits of Soft Power and the Necessity of Military Force* (Boulder: Basic Books, 2017).

⁸⁹ Glaser, "Withdrawing from Overseas Bases: Why a Forward-Deployed Military Posture Is Unnecessary, Outdated, and Dangerous."

 $^{^{90}}$ David A Mueller, "Civil Order and Governance as a Military Responsibility" (US Air Force Air War College, 2016), 5.

⁹¹ Robinson et al., "Finding the Right Balance," 61.

The marketing narrative feeds the Army internal mindset and creates a trend toward cognitive bias. Specifically, that consistent marketing for LSCO readiness takes on the effect of propaganda and creates a bias in US Army leaders, and sends a message to competitor nations that the United States is preparing for war. This demonstrates the systemic internal and external effects of Army modernization efforts.

Recommendations for Continued Use of the LSCO Paradigm

Preparation for LSCO is a productive measure for the US Army in that it provides a framework that unifies the voice of Army senior leaders to the American people and to Congress. It aligns with the presidential approach to international relations, Great Power Competition, and attempts to capture lessons learned from stability operations into activities regarding consolidation of gains. Moreover, it gives a strong sense of the Army's fundamental purpose, to win ground wars against conventional military forces in competing nation-states. As such, LSCO represents that purpose as it underpins both the current Army doctrine in Unified Land Operations and the emerging concept of Multi-Domain Operations.

However, preparation for LSCO has inherent risk should the focus on modernization and leader development be restricted to conventional capabilities and training that does not translate across the ROMO. Many of the situations facing the United States in the world today cannot be effectively influenced or controlled through military force or armed conflict. It is important to balance the application of might with the Army's capability to a support diplomatic, economic, and informational elements of national power. There is also a possibility that in fostering a narrative of readiness for anything, particularly LSCO, that the United States Army will give United States political leaders including Congress and the President the impression that the Army can credibly back threats intended to deter competitor nations. Prudent military advice to political leaders might include a reminder of the diverse commitments to global security

assistance, all of which would suffer degraded performance or reduced effectiveness should the United States military be reprioritized to fight a multi-theater large scale combat operation.

The Army will benefit from continual application of design methodology to reframe LSCO expectations with respect to projected growth. If it is determined that the target capacity and capability cannot be achieved to provide the overmatch that provides for the material solution to controlling global politics, the design methodology indicated in figure 2 (page 8) suggests a reframe is necessary to determine a more appropriate target paradigm. In response to no-growth trends, for example, the Army explores options which re-organize capabilities within the existing force structure to prepare for LSCO and ensure readiness across the ROMO. 92

Using Design Methodology to Regularly Assess Leadership Decisions

Design methodology demonstrates that the process of self-examination against a constrasting paradigm reveals how the practicioner's organization must change in order to be relevant to the conditions in the strategic context. T.E. Lawrence employed design methodology during his participation in the Arab Revolt campaign during World War I. Lawrence recognized that the conventional nature of operations his army employed was not achieving the desired effect and therefore theirs should be "a war of detachment," thereby requiring his army to change how it fought. General Gershon Hacohen employed a similar methodology when tasked to evacuate Israeli settlers from the Gaza strip in 2005. Hacohen approached the situation with tact and developed a relationship between his soldiers from the Israeli Defense Force and their kinsmen, the 8,000 Israeli settlers. In both of these cases, leaders from well-armed and capable army

⁹² Nathan Jennings, "Fighting Forward: Modernizing U.S. Army Reconnaissance and Security for Great Power Conflict," *Military Review* 99, no. 6 (December 2019): 108, accessed 23 December 2019, https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/November-December-2019/Jennings-Reconnaissance-Security/.

⁹³ T. E. Lawrence, *Seven Pillars of Wisdom*, English (New York: Open Road Media, 2015), accessed 3 January 2020, https://ebookcentral.proquest.com/lib/carl-ebooks/detail.action?docID=4084116.

⁹⁴ Monica Garnsey, *Gaza: The Fight For Israel*, Real Stories (RAW TV and Israel Goldvicht Productions, 2005), accessed 31 March 2020, https://www.youtube.com/watch?v=exyQ724 2nk.

organizations changed the character of their organizations to fit sensitive conflicts that did not or would not respond to the conventional application of military force.

The nature of the LSCO paradigm and the mindset of preparation for war against a conventional military create the risk of a cognitive restriction imposed in the minds of Army professionals. Rather than develop professional leaders in such a way as to take the available capabilities and apply them appropriately to any situation along the ROMO, the Army may inculcate leaders with the impression that their organizations are designed and intended for conventional warfare in large scale operations. These leaders will have the most difficult time adapting to new situations as they struggle with the cognitive bias that their training and professional expertise are only valid if the Army is employed as designed rather than for other functions such as security force assistance. Leader adaptability and flexibility will be the critical bridge in pulling the future Army into a desired state of readiness for future conflict. As an Army, the LSCO paradigm is a useful tool, but the Army must be careful not to instill in its leaders the idea that if the future conflict doesn't look like a LSCO, it isn't their job.

Using Design Methodology to Ensure Flexible Modernization Programs

In addition to the cognitive adaptability of leadership, the capabilities Army modernization programs develop for use in LSCO must also meet the needs of LCO. The Army realized between 2014 and 2017 that it could not scale up the resultant capabilities from LCO in Iraq and Afghanistan. Now the Army asserts the argument that capabilities must be focused on achieving overmatch at the high end of peer threat capabilities. In so doing, the Army stands behind a narrative that it strives to be prepared for the worst in order to ensure preparation for the more likely lower intensity operations, such as security force assistance. This formula for future conflict preparedness is at the heart of the current modernization movement.

The argument for preparing for the entire ROMO by preparing for the worst can, however, be inverted and re-applied for the sake of reflection on modernization progress. Army

modernization efforts must produce capabilities which can scale downwards and be applicable to limited contingency operations if the Army is to avoid overspecialization towards a high-end problem set with no capacity for relevance to the evolving strategic context.

In addition, the Army will need a shorter interval between reviews of the strategic context. The quadrennial defense review-style re-assessment of the strategic context takes too long, only happens every four years, and does not happen often enough to ensure current measures are pointed in the right direction. By the time the United States returns to the strategic context in a quadrennial defense review, Army programs designed to meet tomorrow's needs may no longer be relevant to emerging threats. Frequent, rapid and minor course corrections are the key to success rather than infrequent or untimely overcorrections. Critical to this is the reduction of beauracracy between development teams and decision makers, such as the Army hopes to achieve with the introduction of Army Futures Command and the eight Cross Functional Teams aligned with army modernization priorities.

In Closing

The aim of this monograph is to suggest a potential future in which, as a result of a dedicated focus on the LSCO target paradigm, the US Army recreates itself into a sub-optimal organization irrelevant to the conflicts it will face in the future. In so doing, the paper contains a reminder of the importance of iterative re-assessment of our contrasted system, our paradigm against which we prepare to ensure our target level of readiness is relevant to the strategic context of future conflict. After 2003, Army leadership responded to the LCO paradigm of military governance and counterinsurgency and relentlessly modernized capabilities that enable the Army to fulfill commitments in Iraq and Afghanistan. The resulting pendulum swing of modernization and reorganization brought the Army leadership of 2014 into much the same challenges as those faced in 2003. The emerging paradigm of potential LSCO against a peer competitor became

increasingly popular. As Army leaders ride the pendulum back toward conventional military overmatch in preparation for LSCO, it will be critical to achieve a balance of cognitive paradigm with organizational capabilities in order to prevent challenges created for tomorrow's leaders out of today's solutions. 95

⁹⁵ Peter M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization*, Rev. and updated. (New York: Doubleday/Currency, 2006), 57.

Bibliography

- Argyris, Chris, and Donald A. Schön. *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley, 1978.
- Asymmetric Warfare Group. *Russian New Generation Warfare Handbook*. 1st ed. Asymmetric Warfare Group, 2016. Accessed 22 September 2019. https://info.publicintelligence.net/AWG-RussianNewWarfareHandbook.pdf.
- Beech, Hannah. "South China Sea: Where Did China Get Its Nine-Dash Line?" *Time.Com.* Last modified 19 July 2016. Accessed 5 April 2020. https://time.com/4412191/nine-dash-line-9-south-china-sea/.
- Blank, Stephen J. "Imperial Ambitions: Russia's Military Buildup." *World Affairs* 178, no. 1 (June 2015): 67–75. Accessed 16 March 2020. http://lumen.cgsccarl.com/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=poh&AN=102673325&site=ehost-live&scope=site.
- Brown, David. "The Next War Will Be Conventional and All-Out—What Does That Mean?" *ClearanceJobs*. Last modified 3 September 2019. Accessed 8 March 2020. https://news.clearancejobs.com/2019/09/03/the-next-war-will-be-conventional-and-all-out-what-does-that-mean/.
- Cancian, Mark F. "U.S. Military Forces in FY 2020: Army." *Center for Strategic & International Studies*. Last modified 15 October 2019. Accessed 29 February 2020. https://www.csis.org/analysis/us-military-forces-fy-2020-army.
- U.S. Military Forces in FY 2020: The Struggle to Align Forces with Strategy.
 Washington, DC: Center for Strategic and International Studies, November 2019.
 Accessed 6 March 2020. https://www.csis.org/analysis/us-military-forces-fy-2020-struggle-align-forces-strategy-1.
- Clark, Colin. "Army Anti-Aircraft Stryker Can Kill Tanks Too." *Breaking Defense*, 10 July 2018. Accessed 16 March 2020. https://breakingdefense.com/2018/07/army-anti-aircraft-stryker-can-kill-tanks-too/.
- Cohen, Eliot A. *The Big Stick: The Limits of Soft Power and the Necessity of Military Force*. Boulder: Basic Books, 2017.
- Creed, Rich, and Nathan Jennings. "Is Our Army Again Optimized for Defeat?" *Association of the United States Army*. Last modified 30 May 2019. Accessed 24 February 2020. https://www.ausa.org/articles/our-army-again-optimized-defeat.
- de Czege, Huba Wass. "Systemic Operational Design: Learning and Adapting in Complex Missions." *Military Review* 89, no. 1 (February 2009): 2–12. Accessed 25 February 2020. http://web.b.ebscohost.com/ehost/detail/detail?vid=3&sid=da71a97f-597b-45e2-90ba-6aec60d513c2%40sessionmgr102&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1za XRl.
- David, Jack. "Address: If You Want Peace, Prepare for War-U.S. Military Pre-Eminence and

- Why It Matters." *Hudson Institute*. Last modified 8 March 2014. Accessed 8 March 2020. http://www.hudson.org/research/10155-address-if-you-want-peace-prepare-forwar-u-s-military-pre-eminence-and-why-it-matters.
- Dobbins, James, Howard J. Shatz, and Ali Wyne. *Russia Is a Rogue, Not a Peer; China Is a Peer, Not a Rogue: Different Challenges, Different Responses*. Santa Monica, CA: RAND Corporation, 2019. Accessed 16 March 2020. https://www.rand.org/pubs/perspectives/PE310.html.
- Feickert, Andrew. U.S. Army's Initial Maneuver, Short-Range Air Defense (IM-SHORAD) System. Federation of American Scientists, Congressional Research Service, 18 July 2018. Accessed 16 March 2020. https://fas.org/sgp/crs/weapons/IN10931.pdf.
- Finch, Ray. "How the Russian Media Portrays the U.S. Military." *Military Review* (August 2019). Accessed 17 March 2020. https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/July-August-2019/Finch-Russian-media/.
- Frederick, Bryan A. Assessing Russian Reactions to U.S. and NATO Posture Enhancements. Santa Monica, CA: RAND, 2017.
- Garnsey, Monica. *Gaza: The Fight For Israel*. Real Stories. RAW TV and Israel Goldvicht Productions, 2005. Accessed 31 March 2020. https://www.youtube.com/watch?v=exyQ724 2nk.
- Gingrich, Dana M. "Do Large-Scale Combat Operations Require a New Type of Leader?" *Military Review* 99, no. 5 (October 2019): 134. Accessed 25 February 2020. http://lumen.cgsccarl.com/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=138515786&site=ehost-live&scope=site.
- Glaser, John. "Withdrawing from Overseas Bases: Why a Forward-Deployed Military Posture Is Unnecessary, Outdated, and Dangerous." *CATO Institute*. Last modified 18 July 2017. Accessed 17 March 2020. https://www.cato.org/publications/policy-analysis/withdrawing-overseas-bases-why-forward-deployed-military-posture.
- Gold, Jack. "The Future of Conflict Is Proxy Warfare, Again." *Defense One*. Last modified 25 July 2019. Accessed 8 March 2020. https://www.defenseone.com/ideas/2019/07/future-conflict-proxy-warfare-again/158697/.
- Gourley, Scott R. "Closing the Capabilities Gap: Seven Things the Army Needs for a Winning Future." *Association of the United States Army*. Last modified 13 January 2017. Accessed 17 March 2020. https://www.ausa.org/articles/closing-capabilities-gap-seven-things-army-needs-winning-future.
- Green, Mark. "China's Debt Diplomacy." *Foreign Policy*, 25 April 2019. Accessed 5 April 2020. https://foreignpolicy.com/2019/04/25/chinas-debt-diplomacy/.
- Harash, Yosef. "The Next War Will Happen in the Cybersphere, and Here's What It Will Look Like." *Haaretz*. Last modified 6 July 2019. Accessed 8 March 2020. https://www.haaretz.com/us-news/.premium-what-a-future-cyberwar-will-look-like-1.7441901.

- Headquarters, Department of Defense. Planners Handbook for Operational Design. Suffolk, VA: Joint Staff, 2011. -. Summary of the 2018 National Defense Strategy of the United States of America, 2018. Accessed 20 March 2020. https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf. Headquarters, Department of the Army. Army Design Methodology. Army Techniques Publication 5-0.1. Washington, DC: Government Printing Office, 2015. -. The Operations Process. Army Doctrinal Publication 5-0. Washington, DC: Government Printing Office, 2019. —. The US Army in Multi-Domain Operations 2028. TRADOC Pamphlet 525-3-1. Washington, DC: Government Printing Office, 2018. -. The US Army Operating Concept: Win in a Complex World 2020-2040. TRADOC Pamphlet 525-3-1. Washington, DC: Government Printing Office, 2014. -. *Unified Land Operations*. Army Doctrinal Publication 3-0. Washington, DC: Government Printing Office, 2019. Jennings, Nathan. "Fighting Forward: Modernizing U.S. Army Reconnaissance and Security for Great Power Conflict." Military Review 99, no. 6 (December 2019): 100-108. Accessed 23 December 2019. https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/November-December-2019/Jennings-Reconnaissance-Security/. Joint Chiefs of Staff. Description of the 2018 National Military Strategy, 2019. Accessed 25 March 2020. https://www.jcs.mil/Media/News/News-Display/Article/1903669/description-of-the-2018-national-military-strategy-released/. Judson, Jen. "Modernization Reborn: Army Pushes for Total Overmatch." Defense News. Last modified 11 October 2017. Accessed 16 March 2020. https://www.defensenews.com/digital-show-dailies/ausa/2017/10/11/modernizationreborn-army-pushes-for-total-overmatch/. —. "What Risks Is the US Army Taking to Prep for Future Warfare?" *Defense News*. Last modified 12 October 2019. Accessed 24 February 2020. https://www.defensenews.com/digital-show-dailies/ausa/2019/10/14/what-risks-is-the-usarmy-taking-to-prep-for-future-warfare/. Kuo, Lily. "All of the Countries Joining China's Alternative to the World Bank." Quartz. Last
- modified 30 March 2015. Accessed 5 April 2020. https://qz.com/372326/all-the-countries-that-are-joining-chinas-alternative-to-the-world-bank/.
- Lacdan, Joe. "Revised Doctrine Prepares Soldiers for Changing Global Threats." *Army.Mil.* Last modified 6 October 2017. Accessed 24 February 2020. https://www.army.mil/article/195034/revised_doctrine_prepares_soldiers_for_changing_global_threats.

- Lundy, Michael D. "Field Manual 3-0, Operations, Foreword." In *Field Manual 3-0, Operations*. Washington, DC: Government Printing Office, 2017.
- Lynch, Justin. "The Myth of American Military Dominance." *War on the Rocks*. Last modified 15 August 2019. Accessed 17 March 2020. https://warontherocks.com/2019/08/the-myth-of-american-military-dominance/.
- McBride, Courtney. "Wesley: Russia Offers 'pacing Threat' for Army Modernization Efforts." *InsideDefense.Com.* Last modified 1 November 2016. Accessed 25 February 2020. https://insidedefense.com/daily-news/wesley-russia-offers-pacing-threat-army-modernization-efforts.
- Miller, Andrew. "Can America Afford Its Military?" *The Trumpet*. Last modified February 2019. Accessed 8 March 2020. https://www.thetrumpet.com/18319-can-america-afford-its-military.
- Missile Defense Project. "Missiles of North Korea." Center for Strategic and International Studies. *Missile Threat*. Last modified 14 June 2018. Accessed 5 April 2020. https://missilethreat.csis.org/country/dprk/.
- Morgan, Harrison "Brandon." "How Small Units Can Prepare for Large-Scale Combat Operations." *Army Times*. Last modified 13 February 2020. Accessed 24 February 2020. https://www.armytimes.com/2020/02/13/how-small-units-can-prepare-for-large-scale-combat-operations/.
- Mueller, David A. "Civil Order and Governance as a Military Responsibility." US Air Force Air War College, 2016.
- Myers, Meghann. "Chief: The Army Has to Start Preparing for 'the Big War." *Army Times*. Last modified 23 January 2018. Accessed 16 March 2020. https://www.armytimes.com/news/your-army/2018/01/17/chief-the-army-has-to-start-preparing-for-the-big-war/.
- ——. "The Army Missed Its End Strength Goal This Year. Can It Make up the Setback?" *Army Times*. Last modified 8 October 2018. Accessed 8 February 2020. https://www.armytimes.com/news/your-army/2018/10/08/the-army-missed-its-end-strength-goal-this-year-can-it-make-up-the-setback/.
- Nye, Joseph S. "Is Military Power Becoming Obsolete?" *The Korea Times* (13 January 2010). Accessed 5 April 2020. https://www.belfercenter.org/publication/military-power-becoming-obsolete.
- Office of the Director of the Army Staff. 2020 Army Posture Statement. Office of the Director of the Army Staff, 13 March 2020. Accessed 17 March 2020. https://www.army.mil/standto/archive_2020-03-13/.
- Office of the President of the United States of America. *National Security Strategy of the United States of America*. Washington, DC, 2017. Accessed 1 October 2019. https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf.

- Office of the Secretary of the Army. *The Army Strategy 2018*. Washington, DC, 10 October 2018. Accessed 17 March 2020. https://www.army.mil/e2/downloads/rv7/the_army_strategy_2018.pdf.
- Perry, Walter L., Edward O'Connell, Miranda Priebe, Alexander C. Hou, and Lowell H. Schwartz. *Operation Iraqi Freedom: Decisive War, Elusive Peace*. Edited by Walter L. Perry, Richard E. Darilek, Laurinda L. Rohn, and Jerry M. Sollinger. Santa Monica, CA: RAND Arroyo Center, 2015.
- Pincus, Walter. "Hearings Show Our Dependence on Military Space Technology." *Washington Post*, 30 March 2012, sec. National Security. Accessed 16 March 2020. https://www.washingtonpost.com/world/national-security/hearings-show-our-dependence-on-military-space-technology/2012/03/24/gIQANVV8cS_story.html.
- Pomerleau, Mark. "The Army Wants to Ensure Its Command Posts Aren't an Easy Target." *C4ISRNET*. Last modified 22 January 2018. Accessed 16 March 2020. https://www.c4isrnet.com/c2-comms/2018/01/19/the-army-wants-to-ensure-its-command-posts-arent-an-easy-target/.
- Reilly, Jeffrey M. *Operational Design: Distilling Clarity from Complexity for Decisive Action*. Maxwell Air Force Base, AL: Air University Press, 2012.
- Robinson, Linda, Sean Mann, Jeffrey Martini, and Stephanie Pezard. "Finding the Right Balance: Department of Defense Roles in Stabilization." Product Page. RAND Corporation, 2018. Last modified 2018. Accessed 5 April 2020. https://www.rand.org/pubs/research_reports/RR2441.html.
- Schlapak, David A., and Michael Johnson. *Reinforcing Deterrence on NATO's Eastern Flank:* Wargaming the Defense of the Baltics. RAND Corporation, 2016. Accessed 1 March 2020. https://doi.org/10.7249/RR1253.
- Schmitt, Eric. "Iraq-Bound Troops Confront Rumsfeld Over Lack of Armor." *The New York Times*, 8 December 2004, sec. World. Accessed 24 February 2020. https://www.nytimes.com/2004/12/08/international/middleeast/iraqbound-troops-confront-rumsfeld-over-lack-of.html.
- School of Advanced Military Studies. *Art of Design: Student Text Version 2.0.* School of Advanced Military Studies, 2010.
- Senge, Peter M. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Rev. and Updated. New York: Doubleday/Currency, 2006.
- Singer, Peter Warren, and August Cole. *Ghost Fleet: A Novel of the Next World War*. New York, NY: Houghton Mifflin Harcourt, 2015.
- Spoehr, Thomas, and Bridget Handy. *The Looming National Security Crisis: Young Americans Unable to Serve in the Military*. Washington, DC: The Heritage Foundation, 13 February 2018. Accessed 5 April 2020. https://www.heritage.org/defense/report/the-looming-national-security-crisis-young-americans-unable-serve-the-military.
- Stahel, David. Operation Barbarossa and Germany's Defeat in the East. New York: Cambridge

- University Press, 2009.
- Steele, Jeanette. "Marine Commandant Speaks to Students About Future Strategy." *Navy.Mil.*Last modified 21 October 2019. Accessed 25 February 2020.
 https://www.navy.mil/submit/display.asp?story_id=111186.
- Swart-Entwistle, Tisha. "Lundy Retires, Becoming Senior Mentor." Fort Leavenworth Lamp, 16 January 2020. Accessed 24 February 2020. https://www.ftleavenworthlamp.com/community/2020/01/16/lundy-retires-becoming-senior-mentor/.
- T. E. Lawrence. *Seven Pillars of Wisdom*. English. New York: Open Road Media, 2015. Accessed 3 January 2020. https://ebookcentral.proquest.com/lib/carlebooks/detail.action?docID=4084116.
- Weitz, Richard. "Pentagon Report Details China's Unrelenting Military Buildup." *World Politics Review* (10 June 2014). Accessed 14 March 2020. http://lumen.cgsccarl.com/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=poh&AN=96430667&site=ehost-live&scope=site.
- 2007 Army Modernization Plan. English. Headquarters, Department of the Army, Office of the Deputy Chief of Staff, G-8, 2007. Accessed 16 March 2020. https://apps.dtic.mil/dtic/tr/fulltext/u2/a468000.pdf.
- 2010 Army Modernization Strategy. Headquarters, Department of the Army, Office of the Deputy Chief of Staff, G-8, 23 April 2010. Accessed 24 February 2020. https://www.g8.army.mil/pdf/AMS2010_lq.pdf.
- 2019 Army Modernization Strategy. Headquarters, Department of the Army, Office of the Chief of Staff, 2019.
- An Assessment of U.S. Military Power. The 2020 Index of U.S. Military Strength. Washington, DC: The Heritage Foundation, 30 October 2019. Accessed 17 March 2020. https://www.heritage.org/military-strength.
- An Assessment of U.S. Military Power: U.S. Army. The 2020 Index of U.S. Military Strength. Washington, DC: The Heritage Foundation, 30 October 2019. Accessed 29 February 2020. https://www.heritage.org/military-strength/assessment-us-military-power/us-army.
- Cavalry Force Structure Considerations for Total Army Analysis, 30 April 2019.
- "Interview with TRADOC FDD Planners.," October 2019.
- "Iran's Nuclear Program Timeline and History." *Nuclear Threat Initiative*. Last modified January 2020. Accessed 5 April 2020. https://www.nti.org/learn/countries/iran/nuclear/.
- RAND Arroyo Center Annual Report 2018-2019. RAND Corporation, 2019. Accessed 2 March 2020. https://www.rand.org/pubs/corporate_pubs/CP708-2018-2019.html.
- "The Army Team Is Versatile, Adaptable and Ready for Anything." *Goarmy.Com.* Accessed 24 February 2020. https://www.goarmy.com/army-team.html.