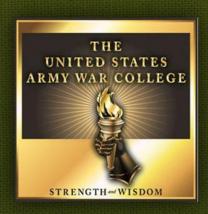
KEY STRATEGIC ISSUES LIST (KSIL)



2018-2020



U.S. ARMY WAR COLLEGE

KEY STRATEGIC ISSUES LIST

2018-2020

U.S. Army War College Press

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Comments pertaining to this publication are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5010.

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For over a decade, the USAWC has published the Key Strategic Issues List (KSIL) to inform students, faculty, and external research associates of strategic topics requiring research and analysis. A subset of these topics, designated as Chief of Staff of the Army special interest topics, consists of those which demand special attention. The USAWC will address these as Integrated Research Projects and other research efforts. The USAWC in coordination with Headquarters Department of the Army (HQDA), major commands throughout the Army, and the joint and interagency community have developed the remaining Army Priorities for Strategic Analysis. The KSIL will help prioritize strategic research and analysis that USAWC students and faculty, USAWC Fellows, and external researchers conduct to link their research efforts and results more effectively to the Army's highest priority topics.

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FOREWORD

As our National Security Strategy and National Defense Strategy acknowledge, Russia, China, North Korea, Iran, and radical violent extremist organizations pose extant and potential challenges to U.S. national security. Those challenges exist within an extraordinarily complex global security environment characterized by dynamic changes in technology and its application, profound demographic shifts, economic redistribution and distortion, and geostrategic power realignments of historic proportions. These everintensifying conditions produce increasing uncertainty concerning the prospects for world peace, stability, and prosperity. Some strategists opine that the potential for great power interstate conflict is higher now than at any time since the end of the Cold War.

Our military forces, especially the U.S. Army, must be prepared to counter a myriad of threats, across the globe, and with little warning. We prefer to do so through effective deterrence, but should deterrence fail, we must be prepared to fight and win whenever called upon. It is not enough for us to address the threats visible today; we must build a future Army that will over-match future threats. This is a daunting challenge, given the advances made by potential peer adversaries, over recent decades. Nonetheless, the strength of America's military derives from a resource that only we can access, our extraordinary men and women in uniform, and the families and communities that support them.

As we think our way into the future, we will rely on our professional military education system and institutions to conduct the research and analysis and develop the strategic thought that will guide our efforts to ensure America's future security. In pursuit of that goal, the Army's educational institutions will identify and tackle the most perplexing strategic issues posed by the ever-changing international security environment. The Key Strategic Issues List (KSIL), developed by the U.S. Army War College, in collaboration with many other organizations and institutions, helps the Army bring to bear our considerable research and analysis capabilities on the most important challenges to the defense of our nation. The KSIL presents over 200 key and strategic issues to guide our research and analysis efforts. I strongly encourage those conducting research through our Senior Service Colleges and Fellows experiences, as well as other researchers, to take-on the difficult issues listed in the KSIL.

As we build a future force to defend our Nation from difficult to predict and discern future threats, we must apply our considerable intellectual power to develop concepts and approaches that will change mindsets in ways that yield extraordinary results. We can do so only through rigorous research and analysis that produces ideas invaluable to the Army and to our Nation.

John S. Kem Major General

Commandant, U.S. Army War College

INTRODUCTION

The United States Army War College (USAWC) prepares the Key Strategic Issues List (KSIL) on a biennial basis to help focus the research community on topics important to the U.S. Army, as determined by three criteria:

- Relevance. Research on KSIL topics must have the potential to shape Army actions or policies rather than being background information or for "situational awareness."
- Priority. Selection of KSIL topics is informed by Department of Defense, Joint, and Army strategic guidance, and through the collaboration of defense scholars and military experts.
- Suitability. The KSIL is tailored to the research capabilities of the USAWC and the greater research community that focuses on these strategic themes. Highly technical issues requiring extensive data collection and specialized or perishable expertise may be more appropriate for other research and analysis organizations.

The KSIL is organized into eight enduring strategic themes. The third theme, regional in focus, is subdivided into six sub-themes. Listed under each theme and sub-theme are key strategic issues that focus potential research. The issues are not in priority order.

Each update of the KSIL considers the previous year's strategic themes and issues. While the strategic themes tend to remain constant from year to year, the strategic issues change often in response to the security environment, defense policy, and ongoing research.

While the KSIL is published biennially, the revision process is continuous. Send feedback and suggestions for future KSIL themes and issues to COL Lynn Devin, at lynn.a.devin.mil@mail.mil, (717) 245 – 3433 or LTC Charlie Carlton at charles.a.carlton2.mil@mail.mil, (717) 961 – 2022.

STRATEGIC LINKAGES

This year's KSIL contains extracts from the *Summary of the 2018 National Defense Strategy*. Portions of it are included to provide a context for the KSIL's themes and to guide researchers as they scope and design their specific research endeavors. At the beginning of each theme, the relevant linkages to the *National Defense Strategy* (NDS) are stated to relate how the theme's issues are nested into the overall strategy of our Nation's leaders. We recommend that users of the KSIL refer to the NDS in its entirety, as well as other national level guidance to include the 2017 *National Security Strategy of the United States of America*.

Extracted from the Summary of the 2018 National Defense Strategy: 1

INTRODUCTION

The Department of Defense's enduring mission is to provide combatcredible military forces needed to deter war and protect the security of our nation. Should deterrence fail, the Joint Force is prepared to win. Reinforcing America's traditional tools of diplomacy, the Department provides military options to ensure the President and our diplomats negotiate from a position of strength.

Today, we are emerging from a period of strategic atrophy, aware that our competitive military advantage has been eroding. We are facing increased global disorder, characterized by decline in the long-standing rules-based international order—creating a security environment more complex and volatile than any we have experienced in recent memory. Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security. (Mattis, Summary of the 2018 NDS, 1)

This increasingly complex security environment is defined by rapid technological change, challenges from adversaries in every operating domain, and the impact on current readiness from the longest continuous stretch of armed conflict in our Nation's history. In this environment, there can be no complacency—we must make difficult choices and prioritize what is most important to field a lethal, resilient, and rapidly adapting Joint Force. America's military has no preordained right to victory on the battlefield.

This unclassified synopsis of the classified *2018 National Defense Strategy* articulates our strategy to compete, deter, and win in this environment. The reemergence of long-term strategic competition, rapid dispersion of technologies, and new concepts of warfare and competition

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¹ James Mattis, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018), accessed January 19, 2018, https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

that span the entire spectrum of conflict require a Joint Force structured to match this reality. (Mattis, *Summary of the 2018 NDS*, 1)

STRATEGIC ENVIRONMENT

The *National Defense Strategy* acknowledges an increasingly complex global security environment, characterized by overt challenges to the free and open international order and the re-emergence of long-term, strategic competition between nations. These changes require a clear-eyed appraisal of the threats we face, acknowledgement of the changing character of warfare, and a transformation of how the Department conducts business. (Mattis, *Summary of the 2018 NDS*, 2)

DEPARTMENT OF DEFENSE OBJECTIVES

In support of the *National Security Strategy*, the Department of Defense will be prepared to defend the homeland, remain the preeminent military power in the world, ensure the balances of power remain in our favor, and advance an international order that is most conducive to our security and prosperity.

Long-term strategic competitions with China and Russia are the principal priorities for the Department, and require both increased and sustained investment, because of the magnitude of the threats they pose to U.S. security and prosperity today, and the potential for those threats to increase in the future. Concurrently, the Department will sustain its efforts to deter and counter rogue regimes such as North Korea and Iran, defeat terrorist threats to the United States, and consolidate our gains in Iraq and Afghanistan while moving to a more resource-sustainable approach.

Defense objectives include:

- Defending the homeland from attack;
- Sustaining Joint Force military advantages, both globally and in key regions;
- Deterring adversaries from aggression against our vital interests:
- Enabling U.S. interagency counterparts to advance U.S. influence and interests;
- Maintaining favorable regional balances of power in the Indo-Pacific, Europe, the Middle East, and the Western Hemisphere;

- Defending allies from military aggression and bolstering partners against coercion, and fairly sharing responsibilities for common defense;
- Dissuading, preventing, or deterring state adversaries and non-state actors from acquiring, proliferating, or using weapons of mass destruction;
- Preventing terrorists from directing or supporting external operations against the United States homeland and our citizens, allies, and partners overseas;
- Ensuring common domains remain open and free;
- Continuously delivering performance with affordability and speed as we change Departmental mindset, culture, and management systems; and
- Establishing an unmatched twenty-first century
 National Security Innovation Base that effectively
 supports Department operations and sustains security
 and solvency. (Mattis, Summary of the 2018 NDS, 4)

CONCLUSION

This strategy establishes my intent to pursue urgent change at significant scale.

We must use creative approaches, make sustained investment, and be disciplined in execution to field a Joint Force fit for our time, one that can compete, deter, and win in this increasingly complex security environment. A dominant Joint Force will protect the security of our nation, increase U.S. influence, preserve access to markets that will improve our standard of living, and strengthen cohesion among allies and partners.

While any strategy must be adaptive in execution, this summary outlines what we must do to pass intact to the younger generation the freedoms we currently enjoy. But there is nothing new under the sun: while this strategy will require sustained investment by the American people, we recall past generations who made harsher sacrifices so that we might enjoy our way of life today.

As it has for generations, free men and women in America's military will fight with skill and valor to protect us. To carry out any strategy, history teaches us that wisdom and resources must be sufficient. I am confident this defense strategy is appropriate and worthy of the support of the American people. (Mattis, *Summary of the 2018 NDS*, 11)

ARMY PRIORITIES FOR STRATEGIC ANALYSIS 2018-2020

Chief of Staff of the Army (CSA) Special Interest Topics are highlighted in bold italics

Theme 1: How can the U.S. Army better integrate into the Joint Force to prepare for and conduct Multi-Domain Operations?

NDS Linkages:

Build a More Lethal Force (Mattis, Summary of the 2018 NDS, 6-10)

The surest way to prevent war is to be prepared to win one. Doing so requires a competitive approach to force development and a consistent, multiyear investment to restore warfighting readiness and field a lethal force. The size of our force matters. The Nation must field sufficient, capable forces to defeat enemies and achieve sustainable outcomes that protect the American people and our vital interests. Our aim is a Joint Force that possesses decisive advantages for any likely conflict, while remaining proficient across the entire spectrum of conflict.

Prioritize preparedness for war. Achieving peace through strength requires the Joint Force to deter conflict through preparedness for war. During normal day-to-day operations, the Joint Force will sustainably compete to: deter aggression in three key regions—the Indo-Pacific, Europe, and Middle East; degrade terrorist and WMD threats; and defend U.S. interests from challenges below the level of armed conflict. In wartime, the fully mobilized Joint Force will be capable of: defeating aggression by a major power; deterring opportunistic aggression elsewhere; and disrupting imminent terrorist and WMD threats. During peace or in war, the Joint Force will deter nuclear and non-nuclear strategic attacks and defend the homeland. To support these missions, the Joint Force must gain and maintain information superiority; and develop, strengthen, and sustain U.S. security relationships.

Modernize key capabilities. We cannot expect success fighting tomorrow's conflicts with yesterday's weapons or equipment. To address the scope and pace of our competitors' and adversaries' ambitions and capabilities, we must invest in modernization of key capabilities through sustained, predictable budgets. Our backlog of deferred readiness, procurement, and modernization requirements has grown in the last decade and a half and can no longer be ignored. We will make targeted, disciplined increases in personnel and platforms to meet key capability

and capacity needs. The 2018 National Defense Strategy underpins our planned fiscal year 2019-2023 budgets, accelerating our modernization programs and devoting additional resources in a sustained effort to solidify our competitive advantage. (Mattis, Summary of the 2018 NDS, 5-6)

Resilient and agile logistics. Investments will prioritize prepositioned forward stocks and munitions, strategic mobility assets, partner and allied support, as well as non-commercially dependent distributed logistics and maintenance to ensure logistics sustainment while under persistent multidomain attack.

Evolve innovative operational concepts. Modernization is not defined solely by hardware; it requires change in the ways we organize and employ forces. We must anticipate the implications of new technologies on the battlefield, rigorously define the military problems anticipated in future conflict, and foster a culture of experimentation and calculated risk-taking. We must anticipate how competitors and adversaries will employ new operational concepts and technologies to attempt to defeat us, while developing operational concepts to sharpen our competitive advantages and enhance our lethality.

Develop a lethal, agile, and resilient force posture and employment. Force posture and employment must be adaptable to account for the uncertainty that exists in the changing global strategic environment. Much of our force employment models and posture date to the immediate post-Cold War era, when our military advantage was unchallenged and the primary threats were rogue regimes.

 Dynamic Force Employment. Dynamic Force Employment will prioritize maintaining the capacity and capabilities for major combat, while providing options for proactive and scalable employment of the Joint Force. A modernized Global Operating Model of combat-credible, flexible theater postures will enhance our ability to compete and provide freedom of maneuver during conflict, providing national decision-makers with better military options.

The global strategic environment demands increased strategic flexibility and freedom of action. The Dynamic Force Employment concept will change the way the Department uses the Joint Force to provide proactive and scalable options for priority missions. Dynamic Force Employment will more flexibly use ready forces to shape proactively the strategic environment while maintaining readiness to respond to contingencies and ensure long-term warfighting readiness. (Mattis, *Summary of the 2018 NDS*, 7)

Theme 1 Issues:

- 1.1 Describe a new or modified operational framework to enable successful visualization and mission command of Army and joint forces across all domains in MDO operations (battles and campaigns) against peer competitors.
- 1.2 Considering that peer competitors put a premium in operating and winning in the information environment both short of armed conflict and during conflict, identify and describe capabilities, authorities, and methods required in the information environment for maneuver and effect. How would these capabilities be employed in an Multi-Domain Operations (MDO) campaign both in the Competition Period and the Conflict Period?
- 1.3 How does the Joint Force mitigate enemy attempts to contest the operational and tactical support areas?
- 1.4 How does the Joint Force destroy, degrade, disrupt, or suppress key enemy capabilities in the deep areas?
- 1.5 What strategic components are essential for durable U.S. military advantage across and within the land, air, sea, space, cyber, information, and electromagnetic spectrum (EMS) domains in the Indo-Asia-Pacific (IAP) region by 2028? Considering the multi-domain threats the United States will face in the next decade, what strategy and policy initiatives are critical to ensure the Joint Force can continue to meet enduring defense objectives against all purposeful IAP threats?
- 1.6 Evaluate how the evolving character of war will impact the strategic environment across all domains, and how the Army and the Joint Force should adapt in key doctrine, organization, training, materiel, leadership, personnel, facilities, and policy (DOTMLPF-P) areas. Assess key inhibitors to needed change and possible ways of dealing with them.
- 1.7 Compare the operational impact and cost of manned versus remotely-piloted or autonomous aircraft in similar roles. Describe the operational impact of Future Vertical Lift technologies in 2030-2050, taking into account the future operating environments.
- 1.8 Analyze and assess capability gaps and future requirements for Army forces to operate in cross-domain operations short of war—the Competition Period.
- 1.9 Describe how Army forces, as part of a joint, interagency, and multi-national team, could operate and compete with peer competitors to defeat their subversive activities, unconventional warfare, and information warfare short of armed conflict.

- 1.10 Explain how theater and/or operational level commanders might open windows of advantage and exploit the initiative in MDO. Account for the operating environment, peer competitors' capabilities, and emerging U.S. and allied capabilities to assess our abilities and challenges to "see" on a future battlefield.
- 1.11 Considering that peer competitors are developing ways to fracture the joint force and challenge us in all domains, describe how theater and operational commanders could engage targets across all domains and the electro-magnetic spectrum in MDO against peer competitors.
- 1.12 Evaluate how operational commanders can operate in and exploit contested and congested cyberspace, space domains, and the electro-magnetic spectrum. Analyze and describe the organization, capabilities, and authorities required for these operational commanders and their staffs to operate against peer competitors who wield similar capabilities with different and often less-limited authorities.
- 1.13 Analyze and assess the institutional limitations, and corresponding solutions, that need to be overcome to achieve unity of command in MDO in the Competition Period and/or the Conflict Period.
- 1.14 Explain how theater and operational level commanders sustain dispersed formations, of varying unit sizes, across wide areas when domain superiority is not achieved. Consider actions in the Competition Period and the Conflict Period.
- 1.15 Analyze and assess current Army and Joint acquisition process challenges, and corresponding solutions, that need to be overcome to achieve converged DOTMLPF-P integration across the domains in sufficient time to meet emerging capabilities being presented by peer competitors.
- 1.16 Analyze Echelon Above Brigade (EAB) roles and functions to support MDO across an expanded battlespace. Describe how EAB forces shape operations in support of MDO. Describe how EAB forces enable, direct, and support tactical Brigade Combat Team (BCT) and below) operations. Are EAB elements simply headquarters or are they fighting formations? Why?
- 1.17 Define, describe, and explain how cross-domain maneuver and cross-domain fires will be executed in the multi-domain environment. What changes to DOTMLPF-P are required to successfully execute such an operation?
- 1.18 Describe how MDO should (or should not) change leader development, readiness and training for the U.S. Army? What, if any, training will become obsolete? Describe the process by which a brigade-level unit (not just BCT level) would train and become ready to operate in support of MDO?
- 1.19 Assess the U.S. Army Warfighting Functions and the impact MDO will have on them. Examine the DOTMLPF-P impacts and capabilities required to

- operationalize MDO. How should the U.S. Army adapt? What are the risks in these adaptations?
- 1.20 Analyze how the U.S. Navy's Distributed Maritime Operations and MDO can integrate and support each other. Examine whether or not a combined concept is possible between the two ideas. How can the Army and Navy best create a cross-domain fires linkage, similar to the Army's Battlefield Coordination Detachment concept with the Air Force and beyond?
- 1.21 Evaluate the U.S. Air Force's multi-domain command and control concept and how it will integrate into the U.S. Army's mission command network. Identify opportunities, challenges, and risks in merging these approaches together, under MDO.
- 1.22 One working premise of MDO is that all formations of BCT and above must have access to all domains. Assess this assertion, accounting for the future operating environment, emerging threats, and possible ways of fighting and defeating a peer competitor. Describe the echelonment of future multi-domain capabilities from tactical to strategic; platoon to combatant command?
- 1.23 Analyze and assess the Army's role and use of watercraft in a multi-domain conflict.
- 1.24 Define Installation Resiliency in the Strategic Support Area of the multi-domain framework and promulgate forward thinking policies or capabilities that optimize efficiency and effectiveness of these installations. What should installations of the future look like? How should stewardship during the fight look? What are the innovative partnering strategies to manage institutional resources in the strategic and operational support areas better?
- 1.25 Given that the Army will face a variety of challenges ranging from competition short of armed conflict to high intensity conflict with a near peer; what capabilities should the Army's aerial and ground intelligence, surveillance and reconnaissance (ISR) assets possess to meet these challenges, as a part of the joint ISR force to provide the necessary situational understanding?
- 1.26 Assess the impact on the joint force and Army on implementing the Joint Concept for Integrated Campaigning.
- 1.27 How do supported and supporting relationships change when the convergence of joint capabilities across echelons requires very rapid changes in such relationships?
- 1.28 What is the impact on the joint force and Army with the addition of Information as a new joint function? Should Information be a new Army warfighting function? How should the Army establish and conduct information environment operations? Is the Marine Corps' model appropriate for adoption? Is Information Warfare a more useful approach than Information Operations?

- 1.29 Analyze how the Army would conduct deception at the national strategic, theater strategic, and operational levels in competition and armed conflict.
- 1.30 Senior leaders believe that a major change in the character of war will occur. When and why will this happen, and what will be the change(s)? What are the implications for the design and operations of the future Army?
- 1.31 Analyze how the Army should study alternative futures. Should they be grounded projections from today's environment or developed in the 'deep future'?

Theme 2: How can the U.S. Army be more effective in complex operational environments

NDS Linkage:

Build a More Lethal Force (Mattis, Summary of the 2018 NDS, 5-7)

Prioritize preparedness for war (Mattis, Summary of the 2018 NDS, 9).

Modernize key capabilities (Mattis, Summary of the 2018 NDS, 9).

- Space and cyberspace as warfighting domains. The Department will prioritize investments in resilience, reconstitution, and operations to assure our space capabilities. We will also invest in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operations.
- Command, control, communications, computers and intelligence, surveillance, and reconnaissance (C4ISR). Investments will prioritize developing resilient, survivable, federated networks and information ecosystems from the tactical level up to strategic planning. Investments will also prioritize capabilities to gain and exploit information, deny competitors those same advantages, and enable us to provide attribution while defending against and holding accountable state or non-state actors during cyberattacks.
- Missile defense. Investments will focus on layered missile defenses and disruptive capabilities for both theater missile threats and North Korean ballistic missile threats.
- Joint lethality in contested environments. The Joint Force must be able to strike diverse targets inside adversary air and missile defense networks to destroy mobile power-projection platforms. This will include capabilities to enhance close combat lethality in complex terrain.
- Forward force maneuver and posture resilience. Investments will
 prioritize ground, air, sea, and space forces that can deploy, survive,
 operate, maneuver, and regenerate in all domains while under
 attack. Transitioning from large, centralized, unhardened
 infrastructure to smaller, dispersed, resilient, adaptive basing that
 include active and passive defenses will also be prioritized.
- Advanced autonomous systems. The Department will invest broadly in military application of autonomy, artificial intelligence, and machine learning, including rapid application of commercial breakthroughs, to gain competitive military advantages.

 Resilient and agile logistics. Investments will prioritize prepositioned forward stocks and munitions, strategic mobility assets, partner and allied support, as well as non-commercially dependent distributed logistics and maintenance to ensure logistics sustainment while under persistent multi-domain attack.

Evolve innovative operational concepts (Supra).

Develop a lethal, agile, and resilient force posture and employment. (Supra).

 Global Operating Model. The Global Operating Model describes how the Joint Force will be postured and employed to achieve its competition and wartime missions. Foundational capabilities include: nuclear; cyber; space; C4ISR; strategic mobility, and counter WMD proliferation. It comprises four layers: contact, blunt, surge, and homeland. These are, respectively, designed to help us compete more effectively below the level of armed conflict; delay, degrade, or deny adversary aggression; surge war-winning forces and manage conflict escalation; and defend the U.S. homeland.

Theme 2 Issues:

- 2.1 Are the Army's current deployment and distribution processes and systems adequate to support an expeditionary force in future operating environments? What lessons have previous studies revealed that should inform future deployment and distribution capability choices for the Army?
- 2.2 Assess the Army's ability to conduct joint operations in a contested cyber and space environment.
- 2.3 Analyze how U.S. land forces can reverse or counter Russia's anti-access and area-denial (A2AD) capabilities in northeastern Europe.
- 2.4 How does the Army achieve military objectives throughout the competition continuum, while simultaneously preserving or increasing the options to employ other elements of national power that will be required for a sustainable political outcome?
- 2.5 Assess whether the changing strategic environment and character of war requires a corresponding change in the way Army leaders think about war.
- 2.6 Assess the Army's readiness and force structure to respond to a humanitarian assistance/disaster relief and stabilization operation, resulting from the use of a weapon of mass destruction (e.g., highly contagious biological weapon or dirty bomb). Assess the effectiveness of U.S. Army relationships with partners to confront regional hegemons and secure vital U.S. interests.

- 2.7 Given the past decade of contracted service support to forces in the field, assess the Army's force structure and capacity to support the Joint Force logistically (Common User Logistics / Executive Agency) during major combat operations.
- 2.8 Evaluate whether contracting with a Private Security Company (PSC) that is American National Standards Institute/American Society for Industrial Security (ANSI/ASIS) compliant represents a net cost savings over contracting with a non compliant PSC.
- 2.9 Assess the Army's ability to execute mission command and control on a multidomain battlefield that includes: friendly and adversary unmanned systems, semi-autonomous (human in the loop) robotic systems, and autonomous (no human in the loop) robotic systems.
- 2.10 Identify how the Joint Force can better leverage capabilities transregionally through innovative authorities to address transregional threats.
- 2.11 Assess Army multi-function Intelligence capabilities to support multi-domain operations.
- 2.12 Assess the degree to which hybrid warfare and constant competition in the information domain to achieve political objectives short of war have changed the Joint Phasing Construct; how should an expeditionary Army adapt?
- 2.13 Evaluate the Army's requirement to be forward positioned, considering the changing security environment (and increasing usage of proxy wars.)
- 2.14 What impact have reductions to the size and numbers of echelons above corps headquarters had on the Army's ability to command and control deployed forces on the highly mobile, complex, and dispersed battlefields of the future?
- 2.15 Assess how well stability actions during armed conflict affect the options for the application of all instruments of national power and protect the legitimacy of the USG integrated campaign.
- 2.16 What are the strategic medical sustainment assets, locations, and capabilities required to support medical operations in a variety of operational environments?
- 2.17 What Investments must the Army make to ensure resilient, survivable information ecosystems and command and control nodes?
- 2.18 What are the implications of transitioning from large, centralized, unhardened infrastructure to smaller, dispersed, resilient, adaptive basing? Which technologies should be adopted to achieve this?
- 2.19 Should the Army consider more allied, partner, and interagency basing concepts, especially overseas?

Theme 3: What is the best use of the Army to promote U.S. interests Globally?

NDS Linkage:

Strengthen Alliances and Attract New Partners

Mutually beneficial alliances and partnerships are crucial to our strategy, providing a durable, asymmetric strategic advantage that no competitor or rival can match. This approach has served the United States well, in peace and war, for the past 75 years. Our allies and partners came to our aid after the terrorist attacks on 9/11, and have contributed to every major U.S.-led military engagement since. Every day, our allies and partners join us in defending freedom, deterring war, and maintaining the rules which underwrite a free and open international order.

By working together with allies and partners we amass the greatest possible strength for the long-term advancement of our interests, maintaining favorable balances of power that deter aggression and support the stability that generates economic growth. When we pool resources and share responsibility for our common defense, our security burden becomes lighter. Our allies and partners provide complementary capabilities and forces along with unique perspectives, regional relationships, and information that improve our understanding of the environment and expand our options. Allies and partners also provide access to critical regions, supporting a widespread basing and logistics system that underpins the Department's global reach.

We will strengthen and evolve our alliances and partnerships into an extended network capable of deterring or decisively acting to meet the shared challenges of our time. We will focus on three elements for achieving a capable alliance and partnership network:

- Uphold a foundation of mutual respect, responsibility, priorities, and accountability. Our alliances and coalitions are built on free will and shared responsibilities. While we will unapologetically represent America's values and belief in democracy, we will not seek to impose our way of life by force. We will uphold our commitments and we expect allies and partners to contribute an equitable share to our mutually beneficial collective security, including effective investment in modernizing their defense capabilities. We have shared responsibilities for resisting authoritarian trends, contesting radical ideologies, and serving as bulwarks against instability.
- Expand regional consultative mechanisms and collaborative planning. We will develop new partnerships around shared interests to reinforce regional coalitions and security cooperation.

We will provide allies and partners with a clear and consistent message to encourage alliance and coalition commitment, greater defense cooperation, and military investment.

• Deepen interoperability. Each ally and partner is unique. Combined forces able to act together coherently and effectively to achieve military objectives requires interoperability. Interoperability is a priority for operational concepts, modular force elements, communications, information sharing, and equipment. In consultation with Congress and the Department of State, the Department of Defense will prioritize requests for U.S. military training, equipment sales, accelerating foreign partner modernization and ability to integrate with U.S. forces. We will train to high-end combat missions in our alliance, bilateral, and multinational exercises. (Mattis, Summary of the 2018 NDS, 8-9)

Theme 3a: What is the best use of the Army to promote U.S. interests in the Asia Pacific region?

NDS Linkage: "Expand Indo-Pacific alliances and partnerships. A free and open Indo-Pacific region provides prosperity and security for all. We will strengthen our alliances and partnerships in the Indo-Pacific to a networked security architecture capable of deterring aggression, maintaining stability, and ensuring free access to common domains. With key countries in the region, we will bring together bilateral and multilateral security relationships to preserve the free and open international system." (Mattis, Summary of the 2018 NDS, 9)

Theme 3a Issues:

- 3.a.1 Projecting forward to beyond 2030 in the USPACOM AOR, perform a zero-based analysis of how the Army should 1) build its headquarters structure; 2) balance rotational forces with forward-stationed forces; 3) choose locations for basing; 4) prioritize capability types; 5) invest in allies and partners; and 6) assess challenges and opportunities specific to the region?
- 3.a.2 Evaluate China's military strategy and tactics in the Western Pacific and assess the effectiveness of U.S. Army responses to counter those actions.
- 3.a.3 Assess U.S. land forces' role in Air-Sea Battle and 3rd Offset concepts.
- 3.a.4 Does the U.S. possess the capabilities and capacity to ensure long-term stability on the Korean Peninsula after combat operations? If not, what functions must the U.S. Army be prepared to perform to ensure success during post-conflict operations?
- 3.a.5 Identify and assess the roles the Army may play in a large-scale pre-conflict Non-combatant Evacuation Order (NEO) and in supporting the South Korean government at the outbreak of a conflict that resulted in large-scale destruction and mass casualties on the Korean Peninsula.
- 3.a.6 Analyze the evolution of Chinese "gray zone" approaches and the U.S./allied role in countering them effectively.
- 3.a.7 Evaluate the effectiveness of the U.S. military strategy and the use of U.S. land forces toward North Korea and Northeast Asia. Suggest an alternative strategy.
- 3.a.8 Evaluate the value of forward Army basing/presence in the Asia-Pacific in achieving U.S. national interests.
- 3.a.9 Assess the Army's effectiveness in accomplishing or supporting Asia-Pacific theater security cooperation plan objectives.

- 3.a.10 Evaluate the effectiveness of United States Army Pacific (USARPAC) or a Joint Force Land Component Commander's (JFLCC) employment of U.S. land forces in the Asia Pacific region in furthering U.S. national interests.
- 3.a.11 What role does the Army have in support of Special Operations Forces (SOF) activities within the pre-crisis space to counter Chinese "gray zone" actions?
- 3.a.12 Assess the impact of Chinese economic dominance (and modernizing ground forces) in Central Asia for U.S. land forces.
- 3.a.13 What land power capabilities resident in the physical and information domains are most useful to a whole-of-government effort to promote stability, access, and inter-state confidence in East and South East Asia over the coming decade?
- 3.a.14 How can U.S. Army Pacific best support the Department of State, DoD, the Joint Staff, and USPACOM engagement strategies with China? How can the Army develop a comprehensive military partnership with the People's Liberation Army (PLA) and incentivize greater participation in USARPAC activities and exercises that are within National Defense Authorization Act guidance?
- 3.a.15 What countries or allies and partners are best postured to contribute to deterrence of Chinese aggression or to mitigate escalation if aggression occurs and how can we strengthen their posture?
- 3.a.16 To what extent does India represent a counter-balance in the Indo-Asia Pacific to help ensure China remains a status quo power; and how can the U.S. reinforce that counter-balance generally, and from a military standpoint?
- 3.a.17 Korea coercion activities and long-term posture change: does pressure work and how can you change posture to truly affect pressure?
- 3.a.18 How can the Army and the rest of DOD (in coordination with other government agencies and host nations) optimize funding, composition, location, and utilization of pre-positioned equipment activity sets for use in operations short of major combat operations (HA/DR, PKO, Training, and Capacity Building)?
- 3.a.19 Conduct a comparative analyses of the roles of Army Service Component Commands (ASCCs) across multiple geographic combatant commands. Identify similarities, differences, best practices, opportunities, and challenges. Include a comparison of ASCC policies, plans, and doctrines for command and control of component forces; and a comparison of ASCC security cooperation strategies, policies, and plans.
- 3.a.20 If the DPRK implodes and becomes an ungoverned space, what are the most plausible scenarios in consideration of U.S., Russian, and Chinese interests? What are the most appropriate courses of action for U.S. policy and strategy in the context of each scenario?

- 3.a.21 How should U.S. Army Pacific support the Japan Ground Self Defense Force transformation efforts, in light of recent changes in the interpretation of Japan's security law; and how can USARPAC assist in allaying the concerns of other Pacific nations regarding Japanese militarism.
- 3.a.22 What levers are available to the U.S. to further its interests in the Indo-Pacific region? How can the U.S. use these levers and elements of national power to embrace change in the status quo that has benefitted the U.S. since the end of World War II?
- 3.a.23 Assess the capabilities of land forces to contribute to maritime domain awareness and sea control in the Pacific region through innovative use of current U.S. Army capabilities; and through building the capacity of foreign Army partners. Develop concepts of operation for specific Army systems or combinations of systems.
- 3.a.24 Assess options to counter Chinese anti-access/area denial (A2AD) cyber capabilities to ensure access in the Pacific region?
- 3.a.25 How should the U.S. use cyberspace operations and social media to counter China?
- 3.a.26 How does the Army (as part of the Joint Force) in PACOM enable the USG to more effectively converge diplomatic, informational, and economic forms of power during cooperation, competition, and armed conflict?
- 3.a.27 Assess options for force stationing and installation management OCONUS

Theme 3b: What is the best use of the Army to promote U.S. interests in the Middle East?

NDS Linkage: "Form enduring coalitions in the Middle East We will foster a stable and secure Middle East that denies safe havens for terrorists, is not dominated by any power hostile to the United States, and that contributes to stable global energy markets and secure trade routes. We will develop enduring coalitions to consolidate gains we have made in Afghanistan, Iraq, Syria, and elsewhere, to support the lasting defeat of terrorists as we sever their sources of strength and counterbalance Iran." (Mattis, Summary of the 2018 NDS, 9)

Theme 3b Issues:

- 3.b.1 Evaluate the strategic implications of heightened Sunni-Shia sectarianism in the Middle East. Consider this rise of sectarianism in the context of the regional multi-dimensional challenges posed by Iran. Analyze land force options for limiting Iranian influence in the region.
- 3.b.2 Are U.S. security cooperation and partner building programs and activities in the Middle East adequate to assure U.S. interests in the region and promote long-term stability?
- 3.b.3 Analyze Army implications of growing Russian activism in the Middle East.
- 3.b.4 Assess the Army's effectiveness in accomplishing Middle East U.S. theater security cooperation plan objectives with special emphasis on Egypt and in maintaining regional peace.
- 3.b.5 Assess Army options to balance direct action, advisory roles, and capacity development when partnering with Middle Eastern and Central Asian militaries combating transnational violent extremist organizations.
- 3.b.6 Assess options for preventing extremists from leaving one battlefield in one part of the world to join another in a different part of the world. (Extremist migration).
- 3.b.7 Assess the US efforts to counter terrorist organizations' use of the internet.

Theme 3c: What is the best use of the Army to promote U.S. interests in South and Central Asia?

NDS Linkage: "Expand Indo-Pacific alliances and partnerships A free and open Indo-Pacific region provides prosperity and security for all. We will strengthen our alliances and partnerships in the Indo-Pacific to a networked security architecture capable of deterring aggression, maintaining stability, and ensuring free access to common domains. With key countries in the region, we will bring together bilateral and multilateral security relationships to preserve the free and open international system." (Mattis, Summary of the 2018 NDS, 9)

Theme 3c Issues:

- 3.c.1 Analyze successful paths to conflict resolution in Afghanistan and the role of military forces.
- 3.c.2 Assess the appropriate role of military forces in reconciliation and reintegration in Afghanistan.
- 3.c.3 Analyze models of Security Assistance Offices and assess options for a post-conflict Afghanistan.
- 3.c.4 Assess the impact of national caveats and mandates on coalition land operations.
- 3.c.5 Assess the Army's effectiveness in accomplishing U.S. theater security cooperation plan objectives in South and Central Asia.
- 3.c.6 Assess the role and impact of deploying U.S. land forces' between Pakistan and India during a Kashmir crisis.
- 3.c.7 Analyze and evaluate U.S. land force options to address the resurgent Taliban in Afghanistan.
- 3.c.8 Analyze and evaluate U.S. land force options to mitigate the impact of ISIS in Afghanistan.
- 3.c.9 Analyze and evaluate U.S. land force options for limiting Iranian influence in the region.
- 3.c.10 Analyze and evaluate the impact and options of U.S. land forces faced with increasing Russian activism in Afghanistan.
- 3.c.11 Analyze and evaluate U.S. land force options for improving U.S. relations with Pakistan.
- 3.c.12 Assess the appropriate role of U.S. Army assistance for India.

- 3.c.13 Assess the impact of Chinese economic dominance in Central Asia for U.S. land forces.
- 3.c.14 Analyze and assess U.S. land force options for partnering with Eurasian forces to combat terrorism while addressing Russian assertiveness.
- 3.c.15 Analyze and assess U.S. land forces potential roles and requirements in sustaining and supporting a long term SOF operational presence in Afghanistan.

Theme 3d: What is the best use of the Army to promote U.S. interests in Latin America and the Caribbean?

NDS Linkage: "Sustain advantages in the Western Hemisphere The U.S. derives immense benefit from a stable, peaceful hemisphere that reduces security threats to the homeland. Supporting the U.S. interagency lead, the Department will deepen its relations with regional countries that contribute military capabilities to shared regional and global security challenges." (Mattis, Summary of the 2018 NDS, 9-10)

Theme 3d Issues:

- 3.d.1 Assess Chinese and/or Russian activities in the Americas and the appropriate U.S. Army contribution to the U.S. government response.
- 3.d.2 Assess the appropriate role of, and requirements for U.S. Army forces, as part of U.S. government support to militaries and law enforcement authorities in the region combatting criminal and terrorist challenges and illicit networks in the region.
- 3.d.3 Assess opportunities and challenges presented by the evolution of the political landscape in Latin America and the Caribbean, particularly with the ongoing crisis in Venezuela. What are opportunities for U.S. bilateral and multilateral engagement in the region? What is the appropriate role of the U.S. Army in support of that engagement?
- 3.d.4 Evaluate how the U.S. Army can most effectively leverage the National Guard and State Partnership Programs in its engagements in Latin America and the Caribbean.
- 3.d.5 Evaluate the U.S. Army's opportunities and challenges with Cuba's reintegration into the international community.
- 3.d.6 Assess the challenge posed by transnational and transregional threat networks in Mexico, Central America, and the Caribbean and the appropriate U.S. Army response.
- 3.d.7 Assess the challenges posed by the potential collapse of Venezuela for its neighbors, the region, and the U.S., and the appropriate U.S. military response.
- 3.d.8 Evaluate how the U.S. Army can mitigate the potential for mass migration from Latin America and the Caribbean, better anticipate potential migration events, and improve preparedness for a migration-related crisis response.
- 3.d.9 Assess the Army's capability and capacity to conduct HA/DR operations in the Caribbean.

Theme 3e: What is the best use of the Army to promote U.S. interests in Eurasia?

NDS Linkage: "Fortify the Trans-Atlantic NATO Alliance A strong and free Europe, bound by shared principles of democracy, national sovereignty, and commitment to Article 5 of the North Atlantic Treaty is vital to our security. The alliance will deter Russian adventurism, defeat terrorists who seek to murder innocents, and address the arc of instability building on NATO's periphery. At the same time, NATO must adapt to remain relevant and fit for our time—in purpose, capability, and responsive decision-making. We expect European allies to fulfill their commitments to increase defense and modernization spending to bolster the alliance in the face of our shared security concerns." (Mattis, Summary of the 2018 NDS, 9)

Theme 3e Issues:

- 3.e.1 Projecting forward to beyond 2030 in the USEUCOM AOR, perform a zero-based analysis of how the Army should 1) build its headquarters structure; 2) balance rotational forces with forward-stationed forces; 3) choose locations for basing; 4) prioritize capability types; 5) invest in allies and partners; and 6) assess challenges and opportunities specific to the region?
- 3.e.2 Assess the evolution of Russian "gray zone" approaches and the U.S. Army and allied role in effectively countering them.
- 3.e.3 Assess the effect on the trans-Atlantic relationship of changing demographics and potential shifts in cultural norms of our NATO allies as a result of the large influx of non-European refugees, asylum-seekers, and economic immigrants due to instability in the Middle East, North Africa, and in other regions of the developing world.
- 3.e.4 How do decisions and actions of intergovernmental organizations, such as NATO and the EU, impact U.S. land force missions and associated organizations, functions, capabilities, and capacity? How can the Army ensure adequate regional access and capabilities are available when required in Europe?
- 3.e.5 Assess the Army's effectiveness in accomplishing U.S. theater security cooperation plan objectives in Eurasia.
- 3.e.6 Assess how the Army can best influence force planning and force structure among key allies in Europe.
- 3.e.7 Analyze how U.S. land forces can reverse or counter Russia's A2AD capabilities in northeastern Europe.
- 3.e.8 Assess the role of U.S. Army and allied military forces in responding to statesponsored disinformation.

- 3.e.9 Analyze the role NATO member states' forces might play in helping U.S. land forces fulfill operational requirements in Europe.
- 3.e.10 Evaluate the security challenges for U.S. land forces should oil prices in Europe and Eurasia remain low.
- 3.e.11 Assess the Army's ability to conduct large scale land operations [multi-corps] in Europe, given current Army headquarters reductions.
- 3.e.12 Analyze Russia's "Reflexive Control" theory and evaluate U.S. policies, strategies, and processes that can be used to counter it.
- 3.e.13 Assess Russia's use of proxy or patriotic hackers and evaluate international laws and norms that can be used to limit their use.

Theme 3f: What is the best use of the Army to promote U.S. interests in Africa?

NDS Linkage: "Support relationships to address significant terrorist threats in Africa We will bolster existing bilateral and multilateral partnerships and develop new relationships to address significant terrorist threats that threaten U.S. interests and contribute to challenges in Europe and the Middle East. We will focus on working by, with, and through local partners and the European Union to degrade terrorists; build the capability required to counter violent extremism, human trafficking, trans-nationalty, and illegal arms trade with limited outside assistance; and limit the malign influence of non-African powers." (Mattis, Summary of the 2018 NDS, 10)

Theme 3f Issues:

- 3.f.1 Evaluate the ramifications of China's and/or Russia's interests in Africa for U.S. land forces and suggest options, both to compete and to cooperate, to further U.S. interests.
- 3.f.2 Assess U.S. land forces' contributions and effectiveness in reducing transnational Violent Extremist Organizations (VEOs) in Africa.
- 3.f.3 Assess U.S. Army methods for approaching and developing military professionalism within African militaries despite potential violations to the Leahy amendment.
- 3.f.4 Analyze how the U.S. Army can help African militaries be more effective at increasing stability on the continent, countering the illicit trafficking of WMD materials, and providing assistance to other African partners.
- 3.f.5 Assess U.S. Army Africa's effectiveness in accomplishing AFRICOM's Theater Campaign Plan objectives.
- 3.f.6 Assess the effectiveness of U.S. Army Africa's mission command capability to respond to small-scale contingencies, Humanitarian Assistance/Disaster Relief, or to respond to U.S.Government requests to contain outbreaks of pandemic influenza and other infectious diseases.
- 3.f.7 Analyze and evaluate the effectiveness of a land-centric, forward component in East Africa and Horn of Africa supporting operations, conducting security cooperation activities, and reducing violence in the region without assigned forces.
- 3.f.8 Identify how the U.S. Army can help develop the institutional and force generation capacities of Libyan and Somali security forces to support both political reconciliation as well as counter-violent extremist organization (VEO) operations.

3.f.9 Are U.S. counterterrorism efforts in Africa sufficient to assist in mitigating the terrorist threat to our partners in Europe? Does the Army need to relook its counterterrorism assistance programs in light of rising threats to Europe?

Theme 4: What is the best use of the Army to help defend the U.S. homeland and North America?

NDS Linkages:

<u>Build a More Lethal Force</u> and <u>Strengthen Alliances and Attract</u> <u>New Partners</u>

Prioritize Preparedness for War (Mattis, Summary of the 2018 NDS, 6)

"Global Operating Model: The Global Operating Model describes how the Joint Force will be postured and employed to achieve its competition and wartime missions. Foundational capabilities include: nuclear; cyber; space; C4ISR; strategic mobility, and counter WMD proliferation. It comprises four layers: contact, blunt, surge, and homeland. These are, respectively, designed to help us compete more effectively below the level of armed conflict; delay, degrade, or deny adversary aggression; surge war-winning forces and manage conflict escalation; and defend the U.S. homeland..." (Mattis, Summary of the 2018 NDS, 7)

"Sustain advantages in the Western Hemisphere. The U.S. derives immense benefit from a stable, peaceful hemisphere that reduces security threats to the homeland. Supporting the U.S. interagency lead, the Department will deepen its relations with regional partners who contribute military capabilities to shared regional and global security challenges." (Mattis, Summary of the 2018 NDS, 9-10)

Theme 4 Issues:

- 4.1 Assess the U.S. Army role in preparing for and responding to a cyberattack on the nation's critical infrastructure and the impact on the military's ability to support civil authorities while deploying forces in response to an overseas crisis.
- 4.2 Should DOD defend more than its own networks? What should the role of DOD be in defending the nation in cyberspace? What do key stakeholders (e.g., Congress, governors, the public, et al.) expect from DOD in defending cyberspace?
- 4.3 How prepared is the Army to make ready, deploy, employ, and sustain a totally mobilized Army? What actions can the Army take to prepare the mobilization enterprise, the national industrial base, and strategic transportation to support a Full Mobilization?
- 4.4 Assess the Joint Force's current capability and capacity to protect the United States and its' territories from the emerging Russian, Chinese, North Korean, and Iranian ballistic and cruise missile threats.

- 4.5 Examine the right force mix and missions for Army active and reserve components and whether the Army can maintain this force mix with multi-component and/or cadre units.
- 4.6 Assess appropriate and inappropriate roles the U.S. Army could play in addressing homeland security and support to civil authorities.
- 4.7 Assess the appropriateness of transferring Army equipment to U.S. civilian police organizations and under what conditions should what equipment be considered for transfer.
- 4.8 Assess the role of U.S. Army forces, in conjunction with other Services including the U.S. Coast Guard, and the Department of State in promoting U.S. interests in the Arctic.
- 4.9 Assess current Army response capabilities against the requirements of a major disaster scenario such as the New Madrid Earthquake or Cascadia Subduction Zone and offer risk mitigation options.
- 4.10 Analyze, compare, and assess authorities and procedures for the U.S. Army's role in disaster relief and Humanitarian Assistance inside vs. outside U.S. territory and suggest policy changes to improve response efforts.
- 4.11 Assess the capability and capacity of the U.S. Army to conduct large scale Humanitarian Assistance / Disaster Relief (HA/DR) while doing simultaneous major combat operations in Europe.
- 4.12 What industrial base capacity would be needed to rebuild the Army after two near simultaneous wars and do we repair forward or return to the depots?
- 4.13 Assess the vulnerability of installations to attack and disruption in multi-domain battle need for resiliency, and a new approach to installation preparedness, protection and doctrine, given new technologies, such as cyber threats, UAVs, robotics, etc.
- 4.14 How do we position our force and capabilities to defend against cyber attacks before they hit the homeland? What laws impact DoD's involvement in Cyber Protection and Cyber offensive operations? Are laws such as the *Posse Comitatus Act* relevant in the cyber domain?
- 4.15 What legal authorities would the Joint Force need to pursue adversaries across cyberspace?

Theme 5: How will major trends in the strategic environment, defense strategy and priorities, society, political authority, demographics, and technology affect the employment of Army forces?

NDS Linkages:

"Prioritize preparedness for war" and Modernize key capabilities (Mattis, Summary of the 2018 NDS, 6-7)

Evolve innovative operational concepts (Mattis, Summary of the 2018 NDS, 7)

Theme 5 Issues:

- 5.1 Assess the ways in which the U.S. and its military can best avoid turning Great Power Competition into Great Power Conflict.
- 5.2 Evaluate the prospect for near to mid-term "strategic shock", its potential origin, and character, and its impact on defense strategy, concepts and capabilities.
- 5.3 Evaluate how technologies like Soldier enhancement programs, robotics, nanotechnology, new materials, new fuels, artificial intelligence, and virtual reality and micro air vehicles capable of delivering biological weapons will affect the employment of the Army and military strategy.
- 5.4 Prioritize where the Army should invest in Science and Technology over the next 10, 20 and 30 years to increase combat power over emerging peer-threats.
- What are the potential impacts of climate change on: a) the character of war; b) vital U.S. national interests; c) emerging security challenges for the United States; and d) threats to Soldier readiness? How could these impacts affect landpower and the organization, training, and equipping of the U.S. Army?
- 5.6 Assess the Army's ability to sustain increased end strength, in light of future social, cultural, political, demographic, and economic changes.
- 5.7 Assess assumption based planning as a means for informing Army leaders, priorities, and resource allocation.
- 5.8 Assess the impact of "lawfare" on the U.S. Army.
- 5.9 Assess how operational energy will affect the employment of the Army.
- 5.10 Assess the feasibility, suitability and acceptability of establishing a cybersecurity function for the National Guard in support of state and local infrastructure.
- 5.11 Evaluate the advantages and risks of mission command and its relevance and practicality on the multi-domain battlefield of the 21st Century.

- 5.12 Assess the Army's DOTMLPF-P impediments to leading and building a JTF-capable HQs capable of fighting hybrid, cyber and gray-area conflicts.
- 5.13 Evaluate how the Army's Deployable Forensic Exploitation Capabilities should evolve to support the Joint Force Commander in an environment characterized by complexity, chaos, and competition.
- 5.14 Assess the impact of economic inequality in western societies on defense strategies, addressing mass migration, dislocated populations, and the rise in the number of failed states.
- 5.15 Assess the impact of the removal of fossil fuel as a major supplier of energy and the replacement of the internal combustion engine in war operations.
- 5.16 Assess the concept of supply-less logistics.
- 5.17 Using innovative ideas, propose what logistics could look like in 2030-2050, taking into account support to distributed operations in future operating environments.
- 5.18 Assess how energy and water security will be integrated into Army operations.
- 5.19 Assess how political trends such as districting (gerrymandering), fundraising, and political action committees and polarization might impact the Army.
- 5.20 How do we integrate breakthroughs in fields like autonomy, artificial intelligence, and machine learning to gain competitive advantages in cyberspace operations?
- 5.21 Analyze and assess the scope and impact of autonomous rules and actions across the defense enterprise.
- 5.22 Assess the potential use and effectiveness of using Identity Activities and Identity Intelligence in a near peer competitor environment.
- 5.23 Assess current policies and gaps related to protection of Army CONUS installations from attacks below the level of armed conflict.
- 5.24 Assess the implications of the commercialization of space, to include leveraging for friendly force use.
- 5.25 Using innovative ideas, assess how the Army can leverage organic forces/capabilities, to employ space based effects on tactically responsive timelines, to enable land based forces, conduct cross domain fire and maneuver in multi-domain battle.
- 5.26 Assess the opportunity to establish a Space Command as a Unified Combatant Command and the range of roles for the Army.

Theme 6: How will social, cultural, political, demographic, and economic changes affect the U.S. Army?

NDS Linkage:

Cultivate Workforce Talent

Recruiting, developing, and retaining a high-quality military and civilian workforce is essential for warfighting success. Cultivating a lethal, agile force requires more than just new technologies and posture changes; it depends on the ability of our warfighters and the Department's workforce to integrate new capabilities, adapt warfighting approaches, and change business practices to achieve mission success. The creativity and talent of the American warfighter is our greatest enduring strength, and one we do not take for granted.

- Professional Military Education (PME). PME has stagnated, focused more on the accomplishment of mandatory credit at the expense of lethality and ingenuity. We will emphasize intellectual leadership and military professionalism in the art and science of warfighting, deepening our knowledge of history while embracing new technology and techniques to counter competitors. PME will emphasize independence of action in warfighting concepts to lessen the impact of degraded/lost communications in combat. PME is to be used as a strategic asset to build trust and interoperability across the Joint Forces and with allied and partner forces.
- Talent management. Developing leaders who are competent in national-level decision-making requires broad revision of talent management among the Armed Services, including fellowships, civilian education, and assignments that increase understanding of interagency decision-making processes, as well as alliances and coalitions.
- Civilian workforce expertise. A modern, agile, information-advantaged Department requires a motivated, diverse, and highly skilled civilian workforce. We will emphasize new skills and complement our current workforce with information experts, data scientists, computer programmers, and basic science researchers and engineers—to use information, not simply manage it. The Department will also continue to explore streamlined, non-traditional pathways to bring critical skills into service, expanding access to outside expertise, and devising new public-private partnerships to work with small companies, start-ups, and universities. (Mattis, Summary of the 2018 NDS, 7-8)

Theme 6 Issues:

- 6.1 Assess how the rise of regional hegemons will impact U.S. Army decisions to forward deploy U.S. land forces or engage in proxy relationships.
- 6.2 Assess the impact of social, cultural, political, demographic, and economic changes on the demands and challenges facing Soldiers and military families.
- 6.3 Assess public attitudes and perceptions of the all-volunteer force and evaluate alternative strategies for countering any negative trends.
- 6.4 What legislative changes should the Army propose to improve readiness, quality of life, and mission effectiveness.
- Analyze how changes in U.S. trade policy might affect U.S. security policy, alliance structures, and Army requirements and the Acquisition Program Baseline (APB) of Army Major Defense Acquisition Programs (MDAP) or Major Acquisition Information Systems (MIAS).
- 6.6 Assess the long-term sustainability of increased Army forces given short-term budget increases.
- 6.7 Assess the ethical integration of Soldier enhancement capabilities.
- 6.8 Assess the value of larger, less capable units compared to smaller more capable units given the complex strategic environment.
- 6.9 Assess the impact of extending time-in-grade limits of Soldiers on active duty to "grow" the Army.
- 6.10 Evaluate the Army officer Professional Military Education (PME) and assignment process for determining effectiveness in language and cultural proficiency and interagency skills.
- 6.11 Is current PME preparing Army leaders to operate effectively with threedimensional partners both now and in the future operating environment?
- 6.12 Assess the impact of life extension capabilities (conquering of cancer, increase in life expectancy) in force structure.
- 6.13 What impact will the Blended Retirement System have on retaining hard-to-fill AOCs/MOSs (e.g. medical, cyber, aviation, etc.)?
- 6.14 Assess the impact of childhood/adolescent obesity and physical inactivity on the recruitment and accession of the future force.
- 6.15 Assess the impact of budget constraints and budget unpredictability on U.S. Army readiness, personnel, and operations.

Theme 7: To what extent can the Army improve defense management to facilitate logistics, resource prioritization, decision making, and adaptation?

NDS Linkage:

Reform the Department for Greater Performance and Affordability

The current bureaucratic approach, centered on exacting thoroughness and minimizing risk above all else, is proving to be increasingly unresponsive. We must transition to a culture of performance where results and accountability matter. We will put in place a management system where leadership can harness opportunities and ensure effective stewardship of taxpayer resources. We have a responsibility to gain full value from every taxpayer dollar spent on defense, thereby earning the trust of Congress and the American people.

- Deliver performance at the speed of relevance. Success no longer goes to the country that develops a new technology first, but rather to the one that better integrates it and adapts its way of fighting. Current processes are not responsive to need; the Department is over-optimized for exceptional performance at the expense of providing timely decisions, policies, and capabilities to the warfighter. Our response will be to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades. We must not accept cumbersome approval chains, wasteful applications of resources in uncompetitive space, or overly risk-averse thinking that impedes change. Delivering performance means we will shed outdated management practices and structures while integrating insights from business innovation.
- Organize for innovation. The Department's management structure
 and processes are not written in stone, they are a means to an end—
 empowering the warfighter with the knowledge, equipment and
 support systems to fight and win. Department leaders will adapt
 their organizational structures to best support the Joint Force. If
 current structures hinder substantial increases in lethality or
 performance, it is expected that Service Secretaries and Agency
 heads will consolidate, eliminate, or restructure as needed. The
 Department's leadership is committed to changes in authorities,
 granting of waivers, and securing external support for streamlining
 processes and organizations.
- Drive budget discipline and affordability to achieve solvency. Better management begins with effective financial stewardship. The Department will continue its plan to achieve full auditability of all its

operations, improving its financial processes, systems, and tools to understand, manage, and improve cost. We will continue to leverage the scale of our operations to drive greater efficiency in procurement of materiel and services while pursuing opportunities to consolidate and streamline contracts in areas such as logistics, information technology, and support services. We also will continue efforts to reduce management overhead and the size of headquarters staff. We will reduce or eliminate duplicative organizations and systems for managing human resources, finance, health services, travel, and will also work to reduce excess property and infrastructure, providing Congress with options for a Base Realignment and Closure.

- Streamline rapid, iterative approaches from development to fielding. A rapid, iterative approach to capability development will reduce costs, technological obsolescence, and acquisition risk. The Department will realign incentive and reporting structures to increase speed of delivery, enable design tradeoffs in the requirements process, expand the role of warfighters and intelligence analysis throughout the acquisitions process, and utilize non-traditional suppliers. Prototyping and experimentation should be used prior to defining requirements and commercial-off-the-shelf systems. Platform electronics and software must be designed for routine replacement instead of static configurations that last more than a decade. This approach, a major departure from previous practices and culture, will allow the Department to more quickly respond to changes in the security environment and make it harder for competitors to offset our systems.
- Harness and protect the National Security Innovation Base. The Department's technological advantage depends on a healthy and secure national security innovation base that includes both traditional and non-traditional defense partners. The Department, with the support of Congress, will provide the defense industry with sufficient predictability to inform their long-term investments in critical skills, infrastructure, and research and development. We will continue to streamline processes so that new entrants and small-scale vendors can provide cutting-edge technologies. We will also cultivate international partnerships to leverage and protect partner investments in military capabilities. (Mattis, Summary of the 2018 NDS, 10-11)

Theme 7 Issues:

- 7.1 Assess the adequacy of the defense management structure, roles and decision-support processes necessary to support total mobilization, including three cases for rapid expansion of the United States Army: growth of 500k personnel, 1 million personnel, and 2 million personnel.
- 7.2 Given less access to resources and training time, how can the Army Reserve best maintain levels of training, proficiency, and readiness comparable to the Active Component? Is this expectation realistic? How should the premobilization training for the Reserve Component be managed to support the Total Force most effectively?
- 7.3 Compare Army requirements, programming, acquisition, and budget priorities to assess the effectiveness of system and process interface.
- 7.4 Analyze the appropriate role of intuition, defense management processes, data, wargame results, threat timelines, bargaining, and advisor networks in Army institutional enterprise level management choices.
- 7.5 Assess whether the Army develops the appropriate knowledge, skills, and abilities of its' leaders to effectively work at Department of the Army level.
- 7.6 Evaluate the Army's execution of its executive agency for DoD biometrics and forensics responsibilities and determine if the joint force is being provided the capabilities it needs to effectively conduct identity activities.
- 7.7 Assess and analyze the impact of modern high casuality producing munitions (thermobaric rounds, tactical nuclear) on the Army and how the Army will conduct mass casualty (MASCAL) operations in an A2AD environment.
- 7.8 We are currently used to an expectation of zero preventable deaths. Do we need to adjust the triage process? In a scenario of massive casualties, triage requires the evaluation of injuries treated to support the most good for the most patients. Assess the current triage categories and required assumption of risk, associated with it.
- 7.9 Assess the strategic impact of high casualty rates sustained in a short period against a great power, where contested domains or burgeoning logistical requirements prevent the rapid evacuation of the wounded.
- 7.10 Analyze the use of DA Civilians within the operational force.
- 7.11 Analyze and assess the Army's current strategy for munitions stationing in relation to future operating environments.
- 7.12 Analyze how munitions can be transported to a contested area when an adversary can strike with "carrier killer" missiles.

- 7.13 Analyze how the Army could transform its facility and infrastructure footprint. Develop enterprise wide strategies to optimize and "right-size" all infrastructure necessary to raise, train, equip, deploy, and ensure the readiness of all Army forces.
- 7.14 How should the Army reorganize to provide additional focus on the emerging challenges of the far future (20-30 years)? Could the Army effectively employ actual test units to experiment with future capabilities without being constrained to maintain current readiness?
- 7.15 Assess the impact of continuing resolutions on military operations.
- 7.16 How can the Army Reserve best leverage the civilian skills of its members? How can the Army Reserve best partner with industry to incorpate the best talent and technology?
- 7.17 How can the Army Reserve maximize its contributions to ARCYBER?
- 7.18 What are the implications of growing Air Defense Artillery (ADA) and Ballistic Missile Defense (BMD) assets in the Army Reserve?
- 7.19 How could the Total Force streamline and normalize systems to better identify and source talent between the AC and Reserve Components
- 7.20 What best practices from industry can the Total Force leverage to find the best possible return on investment balanced by acceptable levels of risk?
- 7.21 What echelons, above and below brigade, should best reside in the Active vs Reserve Components?

Theme 8: To what extent does the Army optimize its effectiveness at the individual, organizational, and societal levels of the human dimension?

NDS Linkage:

Cultivate Workforce Talent (Mattis, Summary of the 2018 NDS, 7-8)

Theme 8 Issues:

- 8.1 Evaluate leader development requirements for MDO and future operational environment out to 2040. Include analysis of NCO, company grade, field grade and flag officers.
- 8.2 Assess the Army's effectiveness in identifying the traits, education, training, and experience necessary for leaders of military organizations to be effective in the future environment.
- 8.3 Evaluate whether the Army now has the "culture of trust" essential to behavior as a profession, vice a government bureaucracy. How well is the Army inculcating its own professional ethic into individuals, unit climates, and institutional culture? Recommend adaptations as needed.
- 8.4 Analyze how the U.S. Army can best export military professionalism to its international partners, while accounting for local and regional political, social, and cultural concerns.
- 8.5 What internal and external factors, affect cognition and decision-making in senior leaders across a broad spectrum of decision categories, within operational and strategic contexts, and in what manner do they do so?
- 8.6 Analyze how the Army can achieve consistent officer quality and diversity.
- 8.7 Evaluate if the Army is developing and assessing leaders correctly.
- 8.8 Evaluate whether the Army is retaining and promoting the right people.
- 8.9 Analyze the nature of mission command at the strategic level and evaluate the Army's ability to employ this concept effectively.
- 8.10 Assess the impact of accompanied (3 years) vs unaccompanied (1 year rotational) tours for OCONUS unit stationing.
- 8.11 Analyze leadership, cultural, and organizational changes the Army should make to enhance its technical workforce (cyber, space, science, medical, and technology experts)?

- 8.12 Identify and assess options for enhancing the recruitment, training, and retention of the Army's technical workforce (cyber, space, science, medical, and technology experts.)
- 8.13 Analyze how the Army can best decrease the divide between the Army and the civilian populace to increase the propensity to serve or recommend service.
- 8.14 Evaluate acceptable risk, and the military's potential willingness to deviate from accredited/approved civilian practices/requirements in order to recruit and retain specialties.
- 8.15 Analyze methods for sustained employment of the Army's civilian work force for forward deployed service.
- 8.16 Given logistical and technological support constraints, analyze what medical capabilities could translate to the tactical force to significantly improve return to duty rates?