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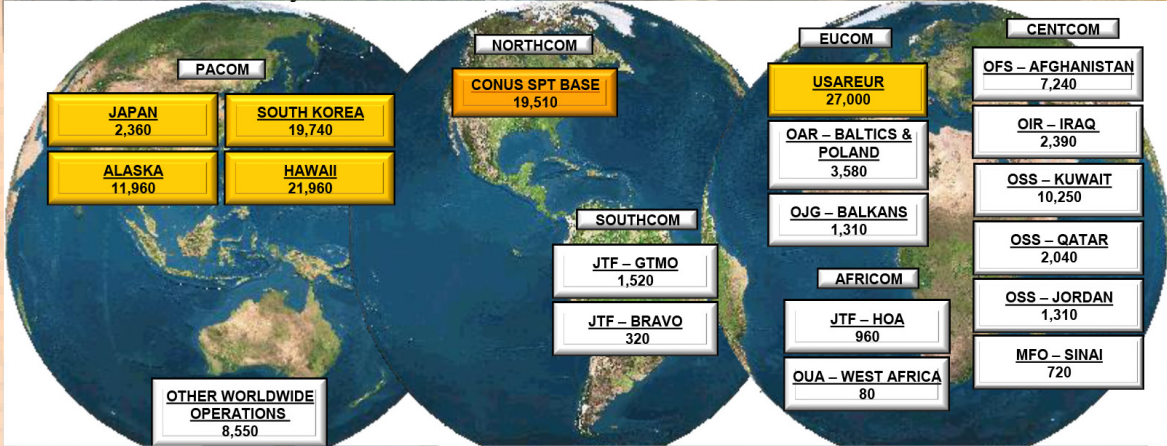
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2015-16 Key Strategic Issues List

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USAWC KEY STRATEGIC ISSUES LIST 2015-2016

U.S. ARMY WAR COLLEGE

KEY STRATEGIC ISSUES LIST

ACADEMIC YEAR 2015-2016

Strategic Studies Institute

and

U.S. Army War College Press

Part I: CHIEF OF STAFF OF THE ARMY SPECIAL INTEREST TOPICS

Part II: ARMY PRIORITIES FOR STRATEGIC ANALYSIS

Part III: ARMY WARFIGHTING CHALLENGES

August 28, 2015

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For over a decade, SSI has published the annual Key Strategic Issues List (KSIL) to inform students, faculty, and external research associates of strategic topics requiring research and analysis. Part I of the Academic Year (AY) 2015-2016 KSIL, referred to as the Chief of Staff of the Army Special Interest Topics, consists of five critical topics that will be addressed by the USAWC as Integrated Research Projects. Part II: Priority Research Areas, has been developed by the U.S. Army War College in coordination with Headquarters Department of the Army (HQDA) and Major Commands throughout the Army. Part III: Army Warfighting Challenges, developed by ARCIC, represents those critical issues associated with the Army Operating Concept, "Win in a Complex World." The KSIL will help prioritize strategic research and analysis conducted by USAWC students and faculty, USAWC Fellows, and external researchers, to link their research efforts and results more effectively to the Army's highest priority topics.

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FOREWORD

The global security environment remains volatile, uncertain and complex and the velocity of instability around the world has increased dramatically. The recently published National Military Strategy highlights the growing global disorder and increasing unpredictability. The complexity of this dynamic security environment is captured in the Army's new operating concept, "Win in a Complex World." The challenge that we face is clearly articulated in the Army Vision:
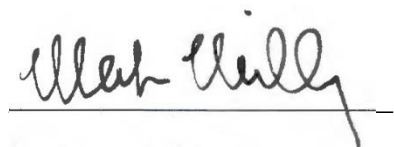
> Our Army also stands at an inflection point. Emerging from fourteen years of war, facing significant budgetary pressures, and confronted with an increasingly complex security environment, we must determine what kind of Army the Nation will need for the future. Our exclusive use of previous paradigms is insufficient for the task ahead…

That task requires in-depth examination of the security environment; thorough analysis of recent military operations and conflicts to determine future trends and responses; understanding emerging technologies and their application to Landpower; and proposing innovative ways to develop future leaders for optimal performance.

Now more than ever, we need to focus the efforts of the Army's educational institutions on addressing these unique challenges. The Key Strategic Issues List (KSIL), developed by the U.S. Army War College, in coordination with Headquarters Department of the Army (HQDA) and Major Commands throughout the Army, includes issues that must be addressed to ensure the Army of 2025 and beyond will continue to meet the needs of the nation. I strongly encourage those conducting research through our Senior Service Colleges and Fellows experiences, and other researchers, to consider the issues listed in the KSIL.

As we build a new future to deal with this growing complexity, the Army will require evolutionary change, and this change begins by changing mindsets. This necessary change must be based on rigorous research and the development of ideas that are invaluable to the Army and to the Nation.

The Army is the strength of the Nation.

Mark A. Milley
General, United States Army Chief of Staff

Part I:

Chief of Staff of the Army Special Interest Topics

1: Strategic Leadership

Determine the desired leader attributes of Army officers selected for promotion to brigadier general, and assess the Army's success in selecting the officers with those attributes. (POC: Dr. Craig Bullis, DCLM, richard.c.bullis.civ@mail.mil, 717-245-3483)

   a. What are the expectations of civilian and military strategic leaders concerning the desired attributes of officers selected for brigadier general?

   b. To what extent have Army brigadier generals exemplified the attributes expected by civilian and military strategic leaders?

   c. What methods of leader education and development are most effective in producing Army general officers?

   d. How should the Army structure its education and development programs, from pre-commissioning to senior-level, to be most effective in producing general officers with the desired leader attributes?

2: Future of the Army

Envision the future of the Army based on an analysis of landpower's role in meeting national security objectives. (POC: Dr. Andrew Hill, DCLM, Andrew.a.hill13.civ@mail.mil, 717-245-4808)

   a. What is the role of land forces in supporting U.S. strategic objectives?

   b. How should the roles and missions of the ground force triad (Army, Marine Corps, and Special Operations Command) be coordinated to offer the best support to U.S. national interests?

   c. What are the key constraints (known and anticipated) on Army force capability, capacity, and employment?

   d. What is the most appropriate Army size, structure, and component mix?

   e. Where should the nation assume risk with Army forces, if necessary? What is the nature and magnitude of the risk, and how can that risk be mitigated?

3: Hybrid Warfare Challenges

Examine the threats to U.S. security posed by asymmetrical strategies and modes of warfare and the role of U.S. land forces in response to these threats. (POC: Prof Nate Freier, SSI, nathan.p.freier.civ@mail.mil, 703-615-6769)

a. What are the primary threats to U.S. security posed by irregular, hybrid, non-linear, proxy, and "gray zone" approaches to war, to include economic, information, diplomatic and cyber in the short and long-term?

b. What is (should be) the Army's role in preparing for and responding to these threats and its role in supporting other actors, organizations or nations engaged in defeating those threats?

c. What combination of force structure, capabilities, organization, training, education, and experience would best enable the Army to defeat current and future asymmetrical threats either kinetically or non-kinetically in every phase of operations from Phase 0 through Phase 5?

d. What strategies and concepts should our nation adopt to deter conflict below the threshold of kinetic major-theater war, and what contribution can the Army make to those concepts?

4: Responding to Regional Crises—Europe

Determine options for landpower as part of a joint and combined strategy for responding to regional crises in Europe. (POC: Prof John Deni, SSI, john.deni@us.army.mil, 717-245-4183, and LTC Michael Adelberg, SSI, michael.a.adelberg.mil@mail.mil, 717-961-2022)

a. To what extent is the Army prepared to execute the full range of military operations in Europe?

b. How can the Army best contribute to security assurance and deterrence in Europe—particularly Eastern Europe and the Baltics?

c. How does the Army overcome the time/distance challenge inherent in the concept of CONUS-based Regionally-Aligned Forces, which a potential major adversary would exploit to our disadvantage, especially in the absence of robust indicators and warnings?

d. How should the Army incorporate theater security cooperation and "building partner capacity" into its strategy based on the challenge of c. above so that partner forces can hold until US forces arrive?

e. What is the Army's role in Foreign Internal Defense (JP3.22) above and beyond that undertaken by Special Operations Force and Civil Affairs?

f. What professional advice should Army leaders give to defense policymakers on posturing force in Europe, anticipating and countering the moves of rival powers, and minimizing risk?

g. What motivates Russia's current foreign policy approach to Eastern Europe? What policies and actions could temper Russia's behavior?

5: Responding to Regional Crises—Indo-Asia-Pacific

Determine options for landpower as part of a joint and combined strategy for responding to regional crises in the Indo-Asia-Pacific region. (POC: Prof David Lai, SSI, david.lai2.civ@mail.mil, 717-245-3914; and Prof Trey Braun, William.g.braun2.civ@mail.mil, 717-961-6718)

a. To what extent is the Army prepared to execute the full range of military operations in the Indo-Asia-Pacific region?

b. How can the Army best contribute to security assurance and deterrence in East and Southeast Asia?

c. How can the Army develop a cooperative and comprehensive partnership with China that encourages Chinese involvement in Army activities and exercises?

d. Which allies and partner nations are best suited to assist in deterring Chinese aggression and coercion, and how can the United States nurture their cooperation in this regard?

e. How can the Army best posture itself in the Indo-Asia-Pacific theater to promote U.S. national security goals?

f. What professional advice should the Army provide defense policymakers on posturing force in those regions, anticipating and countering the moves of rival powers, and minimizing risk?

g. What landpower capabilities are most useful to a whole-of-government effort to promote stability, access, and inter-state confidence in East Asia over the coming decade?

h.   How can the United States change its strategic vision to think in terms of the Western Pacific and Indian Oceans as a single body that defines U.S. security interests?

i. What motivates China's current policy approach toward the Asia-Pacific? What policies and actions could temper Chinese behavior?

Part II:

Priority Research Areas

Adaptive Army Leaders for a Complex World

Strategic Leadership

1. Identify those future thinking and leadership competencies that are needed at the strategic level and identify ways that they can be developed. What kind of leadership development experiences are needed to develop these competencies? (POC: Prof Rich Meinhart, DCLM, richard.meinhart@us.army.mil, 717-245-4797)

2. How has the institutional Army responded to the Chief of Staff of the Army's declaration of leader development as his number one priority? (POC: COL Robert Mundell, DCLM, Robert.m.mundell.mil@mail.mil, 717-245-4805)

    a. What was the CSA's intent for making this declaration (negative assessment of current leader development processes; importance of leader development given the current operational and strategic context; area in need of improvement after a decade of war (+), or area to sustain after a decade (+) of war?

    b. How have institutional PME programs adapted their programs as a result of this declaration, if they have?

    c. Are institutional programs across all levels nested, and designed to create adaptive leaders for a complex security environment?

3. Increasingly in recent years, Army senior leaders have turned to historians to provide research support for projected operations and decision-making. That historical research does not provide a template or model, but does provide important context that senior leaders find useful when addressing modern challenges. How can the Army integrate historical insights and context into the decision making process in order to aid planners and senior leaders? (POC: Michael E. Lynch, Ph.D., AHEC, michael.lynch2@us.army.mil, 717-245-3803)

4. The challenges of an increasingly uncertain and complex future operational environment dictate the need to learn mental flexibility. Soldiers and leaders on tomorrow's battlefield will be faced with decisions that are increasingly far ranging, must be made immediately, and have strategic to tactical consequences down to the lowest level. All of this occurs in an environment and against a target set that may not be familiar and will be rapidly changing. How does the Army best instill and fully develop the characteristics of mental flexibility and critical thinking in its Soldiers, civilians, and leaders? (POC: Kevin McLean, Futures Branch Chief, DCS G2, kevin.m.mclean3.civ@mail.mil, 703 695-2195)

5.   Data, information, and knowledge overload deals with the challenge of making informed decisions in an environment characterized by excessive, non-prioritized information. The inability to cognitively process increasing volumes of information results in delayed and/or poor decision making. How will the Army deal with data, information, and knowledge overload? How will the Army deal with big data? Are there emerging technologies or tools to reduce the magnitude of the data that must be analyzed so that human cognitive abilities are not overloaded? How can the Army improve cognition and decision-making? POC: COL James Saenz, DAIM-ZSI, james.e.saenz.mil@mail.mil, 571-256-1431)

Strategic Mission Command

6.   Leadership and the Art of Mission Command: (POC: COL Robert Mundell, DCLM, Robert.m.mundell.mil@mail.mil, 717-245-4805)

        a. How can the Army more effectively implement the concept of Mission Command?

        b. What are the essential leader KSAs required to fully enact missions command?

        c. What are the cultural impediments to mission command?

7.   What cultural changes are needed in the Army for it to meet future challenges while embracing Mission Command? Identify those cultural embedding and reinforcing mechanisms that Army senior leaders need to put into place to change the culture. (POC: Prof Rich Meinhart, DCLM, richard.meinhart@us.army.mil, 717-245-4797)

8.   How does the Army execute mission command in a satellite communications (SATCOM) denied environment? (POC: Mark Ayers, SMDC G35, mark.h.ayers.civ@mail.mil, 719-554-8891) [Related to issue #104.]

The Human Dimension

9.   The Army Operating Concept (AOC) depicts the Army future force (2025+) as operating in an environment that is unknown, unknowable and constantly changing – anticipative, innovative and enabled by technology. What specific skill sets are required of Soldiers who will be accessed into the Army 10+ years from now; how can the Army assist in developing a sufficient recruiting pool of qualified young people with these skills and attributes? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797)

10. How must the Army personnel management/development system and processes transform to support Army operations as envisioned in the Army Operating Concept (AOC)? What are the greatest impacts to an installation's capability and capacity (mission support, training, security, infrastructure, and family) as it underpins the Army's desire to sustain unit mission readiness for longer periods, shorter prepare/resets, and to generate forces quicker?   (POC: Sam White, CSLD,

samuel.r.white4.civ@mail.mil, 717-245-3797; and LTC Rachel Hill, OACSIM Strategic Plans, Rachel.j.hill.mil@mail.mil, 757-434-3254)

11. Is the U.S. Army producing the types of soldiers and leaders necessary for the future force? (POC: Prof Lenny Wong, SSI, leonard.wong.civ@mail.mil, 717-245-3010)

12. What individual and team performance capabilities will enable the Army to Win in a Complex World? How can the Army become the world leader in Human Performance Optimization? (POC: COL Patrick Mahaney, SSG, patrick.j.mahaney3.mil@mail.mil, 703-545-0516)

Strategy Education

13. How can the Army balance the developmental processes of skill-building, conceptual understanding, feedback, and personal growth to develop strategic thinking competencies for Army leaders? How can the Army better encourage strategic thinking self-development (e.g., reading broadly, exploring a wide range of sources, reflecting on action)? (POC: Steve Kidder, CSLD, Stephen.d.kidder.civ@mail.mil, 717-245-4349)

Globally Responsive and Regionally Engaged Army

14. How can the Army institutionalize the notion of 'globally responsive and regionally engaged'? (POC: Prof John Deni, SSI, john.deni@us.army.mil, 717-245-4183)

15. The Army Operating Concept emphasizes the recognition of human, cultural, and political continuities of armed conflict. It calls for forces possessing cross-cultural capabilities that permit them to operate effectively among populations. Inherent in this vision is a mastery of language, cultural awareness, and an in-depth knowledge of peoples, political systems, religion, demographics, infrastructure, and a host of other factors that can vary significantly by country and region. How can the Army best acquire, maintain, and make that knowledge accessible to support regionally aligned forces? (POC: Kevin McLean, Futures Branch Chief, DCS G2, kevin.m.mclean3.civ@mail.mil, 703 695-2195)

War and Strategy

16. How does the Army support the Joint Force fight a war that extends into the space domain? What is the nexus between the space, cyber, and land domains at the strategic, operational, and tactical levels of war? (POC: Mark Ayers, SMDC G35, mark.h.ayers.civ@mail.mil, 719-554-8891)

Strategic Landpower

17. What are the components of military expertise in the application of strategic landpower now and into the near future (Army 2025)? How should the Army best balance current and future requirements for strategic landpower? How should the Army assess risks in the balance between current capabilities, investments in possible

future capabilities ('big bets') and hedges against other possibilities (so as not to be "too far wrong")? (POC: Dean Richard Lacquement, USAWC, richard.a.lacquement2.civ@mail.mil, 717-245-3273)

18. How can the Army strengthen interoperability with its most capable, and most likely future coalition partners? How can the U.S. Army retain and improve on its ability to operate with multinational forces at all levels? (POC: Prof John Deni, SSI, john.deni@us.army.mil, 717-245-4183; and Dr John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457)

19. How can the U.S. Army modify its institutional processes to encourage innovation? (POC: Prof Trey Braun, William.g.braun2.civ@mail.mil, 717-961-6718)

20. How should the Army's support of air, ballistic, and cruise missile defense evolve in the coming decade? Given the enduring forward commitments and growing demand of Army air and missile defense (AMD) forces, what measures can be implemented across the DOTMLPF-P to mitigate the stress on the Army AMD force? (POC: Prof John Deni, SSI, john.deni@us.army.mil, 717-245-4183; and Mark Ayers, SMDC G35, mark.h.ayers.civ@mail.mil, 719-554-8891)

21. How should the Army provide Security Force Assistance to support Combatant Commanders' Theater Security Cooperation Programs? Should these capabilities be regionally aligned or assigned? (POC: Prof John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457)

22. How can the Army maintain, expand or, as needed, regenerate stability operations capacity? Evaluate requirements for military forces in support of stability objectives across the range of military operations, and make recommendations for flexible force structuring in an era of limited resources. Identify which elements to maintain limited standing capabilities; maintain the nucleus for rapidly expandable capabilities; and develop "blueprints" to regenerate required capabilities from scratch. (POC: COL Mark Haseman, PKSOI, mark.a.hasemen.mil@mail.mil, 717-245-4307)

23. How can the Army best ensure interoperability in a JIIM environment? (Army Warfighting Challenge #14). Examine current and future JIIM challenges. Develop a framework for JIIM shared understanding, purpose, and design/planning. Develop template for a task force/HQ to tie into an embassy in Phase 0-2. (POC: COL Mark Haseman, PKSOI, mark.a.hasemen.mil@mail.mil, 717-245-4307)

24. Shape and set theaters. How much can the Army outsource to contractors in a deployed environment before we risk operational effectiveness? What are the pitfalls for moving entire functions traditionally performed by soldiers to performance contractors? (POC: COL Stephanie Howard, CSLD, stephanie.q.howard.mil@mail.mil, 717-245-4560; BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721; and Robert Phillips, G-3/4 AMC, Robert.j.phillips.civ@mail.mil, 256-450-6919)

a. What are the advantages of utilizing contractors versus maintaining specific capabilities in the reserve components that can be mobilized when needed? Do the advantages outweigh the disadvantages (e.g., SOFA, UCMJ)? What metrics should be used to make these assessments?

b. Which core capabilities are "inherently governmental" and which skill sets and facilities must the Army maintain to support the force? What key capabilities are necessary for expeditionary operations? (POC: Robert Phillips, G-3/4 AMC, Robert.j.phillips.civ@mail.mil, 256-450-6919)

c. How does the use of contractors affect the public's opinion regarding a conflict?

d. How should the Army institutionalize the use of Operational Contract Support? (POC: Mr. Randal Lewis, ODCS, G-4, Randal.e.lewis.civ@mail.mil, 703-692-9019)

25. Strategic mobility: As the Army becomes a CONUS based force, does it have adequate plans, capabilities, and capacities to rapidly deploy adequate sizes and types of forces to meet combatant commander requirements? How can the army mitigate the tyranny of distance and time? (POC: LTC Ned Ritzmann, CSLD, ned.c.ritzmann.mil@mail.mil, 717-961-2029)

a. How do installations continue to stay relevant as power projection platforms? (POC: COL James Saenz, DAIM-ZSI, james.e.saenz.mil@mail.mil, 571-256-1431)

b. What is the appropriate Army Prepositioning Strategy (APS) and Activity Set strategy to remain agile and flexible? (POC: Robert Phillips, G-3/4 AMC, Robert.j.phillips.civ@mail.mil, 256-450-6919)

26. Given constrained funding, what is the right force mix and missions for active and reserve component capabilities? Consider short-term national military objectives and longer term operations. Can the Army maintain the right mix of forces using multi-component and/or cadre units to reduce active component end strength? (POC: Prof John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457; BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721; COL Toney Filostrat, OCAR, Director of Strategy and Integration, toney.e.filostrat.mil@mail.mil, 703-806-7787; and Robert Phillips, G-3/4 AMC, Robert.j.phillips.civ@mail.mil, 256-450-6919)

27. Total Army expeditionary mindset. During the last decade of war in both Iraq and Afghanistan, the Army built numerous elaborate base camps with very good soldier services. Soldiers are now used to deploying to environments with large dining facilities, expansive gyms, movie theaters, education centers, shopping centers, etc. What will cause Soldiers to embrace an expeditionary mindset? What level of quality of life should the Army provide in support of expeditionary operations? What are the appropriate timelines for bringing better QOL to our soldiers? (POC: COL Stephanie Howard, CSLD, stephanie.q.howard.mil@mail.mil, 717-245-4560; and Mr. Jeff Fee, ODCS, G-4, Jeffrey.D.Fee.Civ@mail.mil, 703-805-5023)

28. Theater Security Cooperation and Building Partner Capacity: For the past 25 years the U.S. Government has pursued "Strategies of Engagement" of one form or another. A key contribution of the military instrument of power to these strategies is Theater Security Cooperation or, what has recently been characterized as building partner capacity. Related research topics include the following: (POC: Prof Mike Marra, DMSPO, michael.a.marra2.civ@mail.mil, 717-245-4701)

      a. Title 10 authorities for security cooperation have proliferated since 9/11 to address the conditions underpinning instability and breeding grounds for trans-national terrorism. Are these authorities balanced with Title 22 authorities to create a better whole-of-government approach in addressing complex and ill-structured problems worldwide?

      b. How should Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance authorities be changed, if at all?

      c. What should be the Army's role in institutional capacity building?

      d. Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance are key elements in all Geographic Combatant Commander Theater Strategies. Are we educating and training our leaders and strategists to aptly implement the panoply of tools available to them to shape regions through all phases (0 through V) of planning/execution?

      e. How should we wield elements of Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance as part of our Flexible Deterrent Options in a given scenario when attempting to escalate or de-escalate a crisis?

      f. What are the limits of Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance, and the effects they can realistically garner?

      g. How do we assess, evaluate, document and communicate the effectiveness of Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance programs, given the difficulty of analyzing long-term qualitative outcomes?

      h. What is the most effective framework for prioritizing Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance efforts in a given theater with the understanding the DoD will always have limited resources to apply to these programs? Consider national and DoD policy changes to increase velocity of FMS case exceptions.

      i. How should we address the concern of "potential corruption" while implementing Building Partner Capacity/Security Cooperation/Security Assistance and Security Force Assistance programs?

      j. How can the Army Medical Department (AMEDD) remain relevant and contribute to Theater Campaign Strategies with global health engagements? Design a

strategic approach to global health engagements that engages Combatant Commanders to think of AMEDD as a tool to shape the operational environment. How can MEDCAP-like missions be more productive and less disruptive to local assets, NGOs and other interagency assets in current environment? (POC: Kristina McElroy, DOD VSA, kristina.m.mcelroy2.civ@mail.mil, 703-681-0497,)

29. How can the Army Service Component Commands (ASCC) leverage the Total Force Partnership Program (TFPP), the Army Reserve Private-Public Partnership program, and the National Guard State Partnership Program (SPP) to enhance regional alignment and as a security cooperation force multiplier? (POC: BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721; and COL Toney Filostrat, OCAR, Director of Strategy and Integration, toney.e.filostrat.mil@mail.mil, 703-806-7787)

30. Land forces must be prepared to assume and accomplish critical non-security related stability tasks until the operational environment permits and civilian capacity can be sufficiently expanded to accomplish these tasks. How should Joint and Army concepts and doctrine for operations, intelligence and design/planning change to address these realities?
(POC: Prof Jim Embry, PKSOI, james.h.embrey.civ@mail.mil, 717-245-3524)

31. How can the Army better assist, complement, and leverage UN peace operations to achieve U.S. theater and national objectives? (POC: COL Mark Haseman, PKSOI, mark.a.hasemen.mil@mail.mil, 717-245-4307)

32. In operations that occur to the left of the operational continuum, DoD is the supporting effort and must operate within constraints originating from another agency's paradigm. How does the Army and DoD, as the supporting effort to DoS, better posture to support Chief of Mission-centric operations in Phase 0 Steady State operations? (POC: Mr. Larry Deel, USASOC G-9 Capability Analysis, deell@ahqb.soc.mil, 910-396-0476)

33. Regional dimension of the megacity issue. Existing thinking treats "megacity" as a unitary phenomenon, however, there are important differences across regions. What capabilities are needed for all megacities and which ones are specific to a region, a country, or even one particular megacity? Develop a regional strategic framework for why and how the Army might become involved. (POC: Prof. Steven Metz, SSI, steven.k.metz.civ@mail.mil, 717-245-3822)

34. Unified land operations within complex urban terrain is fast becoming a reality Army formations must contend with. Army doctrine fails to adequately grasp the complexity of large cities, megacities are not currently a unit of analysis within the Department of Defense intelligence community, and megacities and dense urban terrain are not featured in the defense planning scenarios which shape force composition or employment. How should the Army prepare itself for the eventuality of warfare in complex urban terrain? (POC: COL Patrick Mahaney, SSG, patrick.j.mahaney3.mil@mail.mil, 703-545-0516; and Prof Steve Metz, SSI, steven.metz@us.army.mil, 717-245-3822)

35. What are the ethical implications and issues associated with targeted killings and lethal strikes employing semi-autonomous and autonomous robots? (POC: Prof. Trey Braun, SSI, william.g.braun2.civ@mail.mil, 717-961-6718; and LTC Blake Stone, OTJAG International and Operational Law Division, blake.e.stone2.mil@mail.mil, 703-695-1756)

36. The Army has a significant number of aging watercraft in its inventory while the Navy also maintains its own fleet of watercraft. Previous Army-Navy warfighter talks have discussed divesting Army watercraft to the Navy which resulted in a limited divesture of some Army watercraft. In these times of fiscal austerity should the Army divest its remaining watercraft in order to invest more in landpower equities like combat vehicle modernization or should it continue to maintain and invest in watercraft? (POC: LTC Bradley Striegel, FORSCOM, bradley.g.striegel.mil@mail.mil, 910-570-6723)

National Security Policy and Strategy

37. How does strategic Landpower support U.S. National Security Strategy? Given current constraints, in what roles should the Army take risk? (POC: Dr John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457)

38. To what degree and under what circumstances do transnational criminal organizations and irregular groups collaborate with one another or with nation-states in ways that challenge U.S. national security interests? (POC: Prof Paul Kan, DNSS, paul.r.kan.civ@mail.mil, 717-245-3021)

39. How can the U.S. and its partners counter a regional power's use of ethnically-based criminal organizations to create internal instability in neighboring states, which is used as pretext for more aggressive military intervention? (POC: Prof Paul Kan, DNSS, paul.r.kan.civ@mail.mil, 717-245-3021)

40. What are the intelligence challenges for verifying Iranian compliance with any nuclear arms control agreement it might reach with the P-5 plus 1? (POC: Prof Andrew Terrill, SSI, wallace.a.terrill.civ@mail.mil, 717-245-4056)

41. Formalizing Inter-Agency Coordination. Many contemporary national security and foreign policy issues facing the United States argue for a coordinated, whole-of-government approach. However, formal venues for inter-agency coordination and unified effort are lacking, most notably at the theater/regional level. Can formal inter-agency coordination and unified effort be instituted at the regional level, and if so, what might this look like? Alternatively, is it time for Congress to mandate this type of unified effort, in the form of a "Goldwater-Nichols for the Inter-Agency"? (POC: COL Robert Hamilton, DNSS, robert.e.hamilton.mil@mail.mil, 717-245-3278)

42. Are the U.S. Government and the Department of Defense appropriately postured to address climate change in the Arctic? Do we need to relook the Arctic strategy? Should such an effort be aligned to one U.S. Combatant Commander (COCOM)? (POC: Mr. Richard G. Kidd IV, DASA E&S, OASA (IE&E), richard.g.kidd6.civ@mail.mil, 571-256-4710)

Defense and Military Strategies

43. During remarks delivered to the AUSA in October 2014, then SECDEF Hagel proposed that the Army can and should "field a forward-deployed anti-access/area denial (A2/AD) force that would help the Army and the Joint Force deter and prevail in a wider spectrum of conflict." This A2/AD force would be based on a suite of long-range precision-guided missiles, rockets, artillery, and AMD systems. Is there merit in forward-deploying these land-based systems "that can deny adversaries sanctuary and freedom of maneuver"? Is this course of action feasible, acceptable, and suitable? (POC: Mark Ayers, SMDC G35, mark.h.ayers.civ@mail.mil, 719-554-8891)

44. What is the effect of sequestration on the ability of the Army to conduct building partner capacity (BPC) activities at the Tactical, Operational, and Strategic levels? Is the impact universal across the various levels or does it have a greater/more concentrated impact on a single level of BPC activity? (POC: COL Tom Sheperd, DNSS, thomas.e.sheperd.mil@mail.mil, 717-245-3259)

45. In the wake of declining budgets and a growing percentage of the force being stationed in the continental United States, how should the Army develop a low cost, low footprint framework of persistent engagement in order to reassure allies, build capable partners and expand American access? Expand on the concept, introduced in the 2014 Army Operating Concept, of the global landpower network, that will enable better support to Theater Engagement Strategy and integrate multiple partners across multiple domains. (POC: COL Patrick Mahaney, SSG, patrick.j.mahaney3.mil@mail.mil, 703-545-0516)

46. Given current headquarters reductions, how should the Army recreate the capability to conduct large scale land operations [multi-corps]? (POC: Dr John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457)

47. War termination -- in particular, civil-military relations in transition periods from war back to peace (or something approximating "peace"). The winning of wars, which is a central piece of the Army's identity, comes mostly in the latter stages, when the terms for the future are being set. Even as a major combat phase draws down, the Army must be in a position to provide an ongoing threat of coercive leverage so that the postwar situation can be shaped in a way that will be sustainable, and will not allow previous gains to be lost or frittered away. How should Army leaders -- within civil-military norms – make their voice heard in this fraught but hugely significant moment in time? (POC: Prof Tami Biddle, DNSS, tami.d.biddle.civ@mail.mil, 717-245-3282)

48. Military Armistice Negotiations: Defining the Skills and Process for Effective Outcomes.
U.S. military officers and other officers have in the past found themselves negotiating the terms and conditions of an armistice either as a party to the agreement or as a broker (e.g., Korean War, Persian Gulf War, Dayton Agreement). What critical steps are involved in preparing for negotiations? Additionally, what leadership, negotiating and intercultural communication skills are needed to reach an effective agreement? Lastly,

how does the military officer serve as an effective advisor to the diplomat, when called upon to serve in this capacity? (POC: Prof Frank L. Jones, DNSS, frank.l.jones.civ@mail.mil, 717-245-3126; and LTC Blake Stone, OTJAG International and Operational Law Division, blake.e.stone2.mil@mail.mil, 703-695-1756)

49. Legitimacy in governance -- including and especially the problem of corruption. States with weak governance affect all of the global community. The pathologies inside these states produce insurgency, radicalization, civil wars ... and a host of other troubles. How can the Army develop a better understanding of how leaders gain legitimacy in the eyes of their population -- and how they erode/lose that legitimacy – and thus be in a better position to reinforce other interagency actors who are working on this front? The Army needs to be alert to the ways in which a threat of coercive force can aid political efforts being made to clean up corruption and the exploitation of a population by a poor or self-interested leader. (POC: Prof Tami Biddle, DNSS, tami.d.biddle.civ@mail.mil, 717-245-3282)

50. Five years after disestablishment of the U.S. Joint Forces Command, assess to what extent the roles, functions, and missions it pursued are being adequately performed by other organizations? Are there deficiencies in the current performance of the former command's responsibilities that are sufficiently severe to warrant designation of a specified command to correctthem? (POC: Prof Doug Lovelace, SSI, douglas.c.lovelace.civ@mail.mil, 717-245-4212)

51. Adaptive Planning: in 2005, then Secretary Rumsfeld launched the Adaptive Planning initiative within DOD. This initiative grew out of the Secretary's dissatisfaction with both the speed and quality of planning in the run up to the invasion of Iraq. Adaptive Planning envisioned improving both the human aspects of military planning as well as the technical aspects. It also envisioned improving the civil-military dialogue with respect to military planning and a better ability for military planners to provide national decision makers, including the President, more flexible strategic options. Has the Adaptive Planning initiative been successful or in the 10 years since its inception has the state of military strategic and operational planning largely reverted to where it was in 2005? (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561)

52. The impact of the Guidance for Employment of the Force (GEF). In 2010, DOD revised the way it provides strategic planning guidance to combatant commands by creating the Guidance for Employment of the Force. This revision created, among other things, the requirement for geographic combatant commands to develop theater campaign plans and to better integrate military activities with State Department country and regional plans. Theater campaign plans and the GEF are now five years on and while both are generally considered improvements in theater strategic planning, there is little concrete evidence that they have improved either the integration of military activities across the GCC theaters or that they have produced any greater strategic success. Develop appropriate measures of effectiveness and assess the impact of the GEF on theater strategic planning. (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561)

53. The Effectiveness and Value of Operational Design: Over the past eight to 10 years, joint planning doctrine has evolved to incorporate what is currently referred to as Operational Design. Does the operational design methodology as described in Joint Publication 5-0: Joint Operation Planning, represent a significant advance in planning doctrine and has it substantively improved the quality of planning at combatant commands and Army Service Component Commands? Is operational design a fundamentally new concept or simply a repackaging of previous planning concepts and doctrine? (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561)

54. What can the U.S. do to achieve its goals of increasing the effectiveness of United Nations Peacekeeping operations and improving regional peace support operations by building partner capacity? Conduct a strategic and/or operational level analysis of the various U.S. government programs, (RAF, APRRP, GPOI, etc.) and evaluate their effectiveness in attaining these goals. (POC: Dwight Raymond, PKSOI, allen.d.raymond2.civ@mail.mil, 717-245-3409)

55. Review the 16 ongoing United Nations Peacekeeping Operations and the ongoing non-UN Peace Support Operations, and define areas in which the U.S. military can best support these goals and positively affect the success of these missions. What contributions can the U.S. provide in the areas of Intelligence, Surveillance, and Reconnaissance; Command, Control, Communications, and Computers; Logistics; Force Protection; and Protection of Civilians? (POC: Dwight Raymond, PKSOI, allen.d.raymond2.civ@mail.mil, 717-245-3409)

56. Should the Army's reserve component forces continue to serve as an operational reserve, and if so, what is the best approach to maintain unit readiness and the operational experiences obtained through 10+ years of war? (POC: BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721; and Tim Muchmore, HQDA DCS G-8, timothy.s.muchmore.civ@mail.mil, 703-614-5591))

    a. Is tiered readiness viable, or does it just create "have's" and "have not's" among RC units?

    b. If the ARFORGEN cycle is to be utilized, what is the best ratio or training/readiness years to available year: 5:1? 6:1?

    c. If RC units will be mobilized during peace-time, what should be done to rewrite the social compact with families and employers? How long should an RC unit expect to be in a Title X status?

    d. During the Korean conflict, ARNG Divisions were mobilized and sent to USAREUR to   replace AC units sent to Korea. What are the current implications of rotating mobilized Guard BCTs to serve as forward deployed deterrent forces?

    e. As the Army draws down, possibly to 420K, how should it prepare to rapidly increase capacity and capabilities in the event of a major conflict?

Regional Studies

57. Regionally Aligned Forces (RAF). A considerable amount of research and writing has already been done on RAF, however the concept requires further evaluation. Specifically, future research should focus on measuring the impact of RAF as a method for conducting Theater Security Cooperation. Specific questions for research include: (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561)

    a. Is the RAF concept effective in developing regional expertise in participating units, or is turnover in these forces so great that it negates the development of any institutional regional expertise?

    b. Is the RAF concept sustainable over time or are global force management requirements too disruptive to enable sustained regional alignment for particular units?

    c. Is RAF more or less effective than simply assigning Army forces to combatant commands and using them out of area, so to speak, only when global force management dictates?

    d. Examine the implications regarding RAF for Reserve and National Guard formations.

58. How can the Army best leverage the National Guard's State Partnership Program (SPP) to establish enduring regional alignment for ARNG BCTs and Divisions? What economies could be realized by resourcing (e.g., leadership/cultural development, prepositioning equipment, distributed staff training) these RAF alignments for the long term? How can SPP be leveraged to contribute to the Security Cooperation Overseas Unit Training (SCOUT) program? How do the continuing relationships, established between a state's and its partner country's senior leaders, contribute to interoperability? (POC: BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721)

59. What HQs element is responsible for regional engagement? How does the mission of theater-JFLCC enhance the regional engagement of the Army? Are these HQs staffed and organized to execute mission command for regional engagement? (POC: Dr John A. Bonin, CSLD, John.A.Bonin.civ@mail.mil, 717-245-3457; and LTC Ned Ritzmann, CSLD, ned.c.ritzmann.mil@mail.mil, 717-961-2029)

60. How should the Army provide trained and ready JTF-HQ capabilities for Combatant Commanders? What DOTLMPF impediments currently exist to building a JTF-capable HQs within the Army that are customized for hybrid, cyber and gray-area conflicts? (POC: Dr John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457)

    - Under what circumstances is there a decision to be made as to whether a JTF is to be SOF-led or conventional force-led? (POC: Mr. Matt Erlacher, USASOC G-5 Strategy & Policy, matthew.erlacher@ahqb.soc.mil, 910-432-1539)

61. What can the U.S. do now, and over the next 30 years, to prepare for crises that could involve a more influential, and more aggressive Peoples Republic of China (PRC)? (POC: LTC Donald Travis, CSLD, donald.s.travis.mil@mail.mil, 717-245-4527)

62. What are the potential policy shifts we may see in the PRC toward U.S. actions and activities that could result from changes in climate, demographics, and political and economic circumstances? (POC: LTC Donald Travis, CSLD, donald.s.travis.mil@mail.mil, 717-245-4527)

63. Developing a workable, sustainable, and interdependent U.S.-China mil-mil relationship. Currently, whenever the US/China relationship heats up, the first response from China is to cancel mil-to-mil events. There is no perceived cost associated with cancelation, because there is little perceived benefit to China. How can the U.S. be more forthcoming in its mil-to-mil program to help generate a stakeholder attitude on the part of China, so that this aspect of the relationship rises in importance and thus represents a more effective point of leverage? (POC: Prof David Lai, SSI, david.lai2.civ@mail.mil, 717-245-3914)

64. Does India's conventional "Cold Start" doctrine, in the face of Pakistan's nuclear "first use" doctrine and employment of unconventional forces, provide stability in South Asia, or pose an unacceptably high risk of catastrophic regional war? What role should the United States play in the region? (POC: Prof Larry Goodson, DNSS, larry.p.goodson.civ@mail.mil, 717-245-3261)

65. The U.S.-India defense relationship will be the pivotal strategic issue of the first half of the 21st century. India alone is geographically positioned to cooperate with U.S. long-term strategic interests in the Indian Ocean and South East Asia as China grows more imperial and more powerful with each passing day. India is home to 1/5th of the world's population, is the largest democracy in the world, and is our natural ally in everything from containing Pakistan, to anti-piracy efforts, to maintaining freedom of the seas as China's deep-water capacity steadily increases, to security in the Horn of Africa where millions of its citizens live and work. What actions should the United States take to further develop this strategic relationship? (POC: Prof Chris Mason, SSI, matthew.c.mason4.civ@mail.mil, 717-245-4073)

66. How can the U.S. Army most effectively support efforts to prevent, contain, or defeat violent extremist movements in Africa? (POC: Prof Steve Metz, SSI, steven.metz@us.army.mil, 717-245-3822)

67. How can the U.S. Army best support the continued professionalism of African armies and the development of African military capabilities? (POC: Prof Steve Metz, SSI, steven.metz@us.army.mil, 717-245-3822)

68. What actions and capabilities must the U.S. and its partners work to develop in Africa over the next 30 years to prepare for contingencies that include non-combatant evacuation operations, failing states, natural disasters, or anti-access/ area-denial actions? (POC: LTC Donald Travis, CSLD, donald.s.travis.mil@mail.mil, 717-245-4527)

69. How can the United States support regional efforts to stabilize Yemen and support improved governance in that country? To what extent can the military be professionalized without such improvements? (POC: Prof Andrew Terrill, SSI, wallace.a.terrill.civ@mail.mil, 717-245-4056)

70. If the Syrian Civil War sparks a Great Middle Eastern War, what will be the ramifications of that war for the region, United States, and world? (POC: Prof Larry Goodson, DNSS, larry.p.goodson.civ@mail.mil, 717-245-3261)

71. How can the United States best support Egypt in its struggle against terrorist and insurgent forces in Sinai and throughout the country, while continuing to push for democratic reform in that country? (POC: Prof Andrew Terrill, SSI, wallace.a.terrill.civ@mail.mil, 717-245-4056)

72. Is existing U.S. strategy toward the Islamic State of Iraq and the Levant (ISIL) likely to achieve U.S. policy aims? What improvements to U.S. strategy (both Operation Inherent Resolve and the non-military components of that strategy) might be needed? (POC: Prof Larry Goodson, DNSS, larry.p.goodson.civ@mail.mil, 717-245-3261)

73. If the Framework for a Joint Comprehensive Plan of Action on Iran's Nuclear Program should fail, what strategy should the United States employ to achieve its policy objective of preventing Iran from obtaining a nuclear weapon? (POC: Prof Larry Goodson, DNSS, larry.p.goodson.civ@mail.mil, 717-245-3261)

74. Notwithstanding Operation Resolute Support, Western countries seem set to diminish their involvement in Afghanistan over the next five years. If so, and a regional "Great Game" in and around Afghanistan develops, what response would best secure American interests? (POC: Prof Larry Goodson, DNSS, larry.p.goodson.civ@mail.mil, 717-245-3261)

75. What actions and capabilities must the U.S. and its partners work to develop in Latin America over the next 30 years to prepare for contingencies that include non-combatant evacuation operations, failing states, natural disasters, or anti-access/ area-denial actions? (POC: LTC Donald Travis, CSLD, donald.s.travis.mil@mail.mil, 717-245-4527)

76. How might the projected effects of climate change exacerbate conditions in Africa, Latin America, or the Asia-Pacific region, and increase the demand for humanitarian assistance/disaster response? How might collaboration on climate change adaptation measures be used to increase partner or allied resilience? (POC: Mr. Richard G. Kidd IV, DASA E&S, OASA (IE&E), richard.g.kidd6.civ@mail.mil, 571-256-4710)

Ready and Modern Army

77. Given current reductions, how does the Army maintain its posture as the backbone of the Joint Force, providing fundamental capabilities to each Combatant Commander such as command and control, logistics, intelligence and communications support to set the theater? How does the Army leverage the other services capabilities within the

CCDRs and external agencies (such as DLA)? (POC: Dr John A. Bonin, CSLD, john.a.bonin.civ@mail.mil, 717-245-3457)

78. How should theater armies respond and provide mission command to small-scale contingencies? What capabilities do they need for steady state activities and rapid response requirements? (POC: Dr John A. Bonin, CSLD, john.a.bonin.civ@mail.mil, 717-245-3457)

79. How do Army Conventional Forces and Army Special Operations Forces build and maintain modern, scalable C2 structures that ensure robust Mission Command across the operational continuum that can seamlessly transition from a Special Operations led to a Conventional Force-led Campaign? (POC: Mr. Larry Deel, USASOC G-9 Capability Analysis, deell@ahqb.soc.mil, 910-396-0476)

80. How should the Army regenerate stability operations capacity when called upon? Make recommendations for force structure in an era of maintaining limited capacity, and for required capabilities and time/resources required to regenerate capacity. (POC: Prof Jim Embry, PKSOI, james.h.embrey.civ@mail.mil, 717-245-3524)

81. How do we integrate Rule of Law mechanisms/advisors into the stability transition planning process which will facilitate seamless rebalancing from military to police in post conflict? How can we mitigate a security vacuum with no "police" forces? (POC: Ms. Karen Finkenbinder, PKSOI, karen.j.finkenbinder.civ@mail.mil, 717-245-3659; and LTC Blake Stone, OTJAG International and Operational Law Division, blake.e.stone2.mil@mail.mil, 703-695-1756)

82. How should the Army train and task organize across the joint force to improve its ability to respond to foreign humanitarian assistance (FHA) and the accompanying shocks to the host nation system? (POC: COL Mark Haseman, PKSOI, mark.a.haseman.mil@mail.mil, 717-245-4307) How might the projected effects of climate change increase the demand for FHA and exacerbate the accompanying shocks to the host nation system? (POC: Mr. Richard G. Kidd IV, DASA E&S, OASA (IE&E), richard.g.kidd6.civ@mail.mil, 571-256-4710)

83. Information Dominance: What is the nexus between Cyber, Information Operations, Public Affairs, Psychological Operations, and other warfighting function areas and what are the current and future challenges for our Army in becoming dominant in the Information Domain in support of the Army Operating Concept in 2025? What are the DOTLMPF ramifications? Has the legacy approach to Information Operations, which included both the technical and cognitive aspects of information, become separated due to the rise of Cyber? (POC: BG Malcolm B. Frost, OCPA, malcolm.b.frost.mil@mail.mil, 703-695-5135; and Mark Ayers, SMDC G35, mark.h.ayers.civ@mail.mil, 719-554-8891)

84. Innovation and Transformation. The Army has had a focus on innovation and transformation for the past 10 years at least. Evidence of this focus includes the Army Transformation initiatives codified in the 2004-2007 Army Campaign Plans and the

creation of an Army Transformation office within the HQDA G-3/5/7. This focus, however, has arguably created a culture fixated on change for change's sake; changing or innovating at the wrong time, when it is not required or beneficial, is just as bad as not changing or innovating when it is required. The experience of U.S. Southern Command during the Haiti earthquake disaster is a case in point. Is the Army's focus on innovation and transformation appropriate or is it counterproductive and how should we judge? (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561)

85. The Value of Army Headquarters. The Army is currently in the process of cutting the size of its headquarters as well as reducing the grade plate structure within them. This is generally seen as a method of preserving readiness of combat formations, particularly brigade combat teams. Is this approach wise in the current security environment? Complex adaptive problems require well trained, well led, robust staffs, and a national security strategy that relies on contributions by partners and allies increases, rather than decreases, the need for headquarters – providing effective command and control leveraging a mission command philosophy for multinational operations is a very difficult task. Furthermore, in terms of reversibility, combat formations are more easily reconstituted than division, corps, or Army headquarters. Does the Army undervalue headquarters? Might complexity drive the need for larger, more capable headquarters rather than smaller ones and might larger headquarters actually increase the flexibility and adaptability of the force? What is the optimal size for large headquarters? In short, might the need for robust headquarters with senior personnel in key positions be growing, rather than shrinking? (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561; and COL Yong Cassle, XO, ASA (FM&C), yong.s.cassle.mil@mail.mil, 703-614-5548)

86. Outgoing Defense Secretary Hagel introduced the concept of the "3rd offset strategy," and although the concept is still under development, these types of technologies are expected to be affiliated: robotics, autonomous operated guidance and control systems, visualization, biotechnology, miniaturization, advanced computing and big data, advanced energetics, additive manufacturing and 3D printing. What are the implications for the Army's modernization program of the 3rd offset and how does the Army fit into this initiative? (POC: Prof John Troxell, SSI, john.f.troxell.civ@mail.mil, 717-245-3231)

87. Where does investment of limited R&D resources make the greatest strategic impact on the Army future force (2025+)? What new metrics of S&T value should be used to assess impact in an Army future force of 2025+? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797; and Robert Phillips, G-3/4 AMC, Robert.j.phillips.civ@mail.mil, 256-450-6919)

88. What other areas of applied research or emerging technologies would allow the Army and Joint Force to achieve and maintain a competitive advantage on the battlefield and in the operational environment while leveraging research done by industry, academia, and other government agencies? Where do we focus Army RDT&E and which areas should be left to the commercial sector? (POC: Prof Albert Lord, DMSPO, albert.f.lord.civ@mail.mil, 717-245-4858; Mr. Sam Cooper, ODCS, G-4,

Samuel.Cooper7.civ@mail.mil, 703-805-5036; and Robert Phillips, G-3/4 AMC, Robert.j.phillips.civ@mail.mil, 256-450-6919)

89. Which Army future force (2025+) capabilities and formations are most appropriately located in the Reserve Component? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797; and BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721)

90. Is the current (2015) construct of RC training, readiness and access appropriate to meet the Army's requirements in 2025+? How should the 39-day peacetime training model for Reserve and Guard forces be updated/expanded to increase the availability, readiness, and utility of Reserve and Guard forces? What are the opportunities for the Army to better support the peacetime training and development of Reserve and Guard forces to optimize their proficiency and readiness with limited days of training? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797; BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721; and Tim Muchmore, HQDA DCS G-8, timothy.s.muchmore.civ@mail.mil, 703-614-5591)

91. How can joint and service planners embed the concept of energy-informed operations, as a Key Performance Parameter (KPP), in their planning processes? How can the joint force mitigate its dependence on fossil fuels for mobility? (POC: Prof Brett D. Weigle, DMSPO, Brett.D.Weigle.civ@mail.mil, 717-245-3417)

  a. How do we reduce energy consumption costs in an era of increased individual consumption harkened by the advent of personal electronic devices? (POC: COL John Strange, Jr., XO to DASCIM, john.j.strange.mil@mail.mil, 703-693-3233)

  b. How can joint and service planners address the issue of water shortage in their planning processes? (POC: Mr. Richard G. Kidd IV, DASA E&S, OASA (IE&E), richard.g.kidd6.civ@mail.mil, 571-256-4710)

Cyber

92. The application of International Law in Cyberspace is unclear, and presents many potential legal challenges for commanders as they apply Cyber to their operational requirements. What are the issues in current International Law that affect the U.S. application of the Cyber Domain? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil; and LTC Blake Stone, OTJAG International and Operational Law Division, blake.e.stone2.mil@mail.mil, 703-695-1756)

93. United Nations and NATO Charters discuss the concept of "use of force" for purposes of national defense and response to hostilities. What are the definitions and guidelines for establishing the use of force in cyberspace? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil)

94. The cyber domain is a recent construct and military operations in and through cyberspace are rapidly evolving. In recent history, two other domains (air and space)

saw rapid decades-long evolution, including military operations in and through those domains. What do our experiences in the air domain and later in the space domain suggest for the trajectory of military operations in cyber space? (POC: LTC Jonathan A. Campbell, ARCYBER Operations, jonathan.a.campbell2.mil@mail.mil, 703-706-2376)

95. Cyberspace command and control:

      a. What authorities do USCYBERCOM and operational-level commanders require to conduct full spectrum cyberspace operations during conflict? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil)

      b. USCYBERCOM is currently a sub-unified command under USSTRATCOM. What are the advantages, disadvantages, and risks of USCYBERCOM becoming a unified command? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil)

      c. Joint Forces at the Theater level are moving towards the establishment of a Joint Force Cyber Component Command (JFCCC), potentially equivalent to Air, Land and Sea Component Commands (JFACC, JFLCC, JFMCC). Describe a strategy (ends, ways, and means) to establish a Joint Functional Component Command for Cyberspace (i.e., JFCCC). (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil)

      d. The military services are organizing their cyberspace forces to support both joint and service requirements. Each service has established Service Cyberspace Component Commands to support joint missions. The Army, Navy, and Air Force also utilize service retained organizations (Second Army, Tenth Fleet, 24th Air Force). What are the strategic advantages and disadvantages of the way each service has organized its cyberspace forces, and what advantages could the Army achieve by changing the way it has organized its own? (POC: MAJ Christopher Cline, ARCYBER G5, christopher.l.cline.mil@mail.mil, 703-706-1730)

      e. As Army network operations in cyberspace evolve, the lines of responsibility among the CIO/G-6, other Army staff elements, and the Army's cyber component (U.S. Army Cyber Command) often blur in practical application. What are the best roles and responsibilities at Department of the Army Headquarters and operational commands to ensure that the Army operates effectively in cyberspace? (POC: Barry Bazemore, Army CIO/G-6, barry.e.bazemore.civ@mail.mil, 571-256-8998)

96. The new DoD Cyber Strategy states that one of the missions for the Department of Defense Cyberspace capability is the military protection of the 16 sectors of Critical Infrastructure against cyber-attacks of significant consequence. How would DoD participate in the defense of critical Infrastructure? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil)

97. The Army has chosen to put the areas of Cyberspace, Electromagnetic Warfare and Spectrum Operations together in the development of the "CEMA" (Cyber Electromagnetic Activities) concept. Can this concept work in conducting Joint operations? How does the CEMA concept complement Space operations? Should Space Operations become a part of CEMA or stay separate? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil; and Mark Ayers, SMDC G35, mark.h.ayers.civ@mail.mil, 719-554-8891)

98. The Reserve Component is preparing to play a major role in cyberspace operations. What is the primary mission of the Reserve component in cyberspace operations? How should the Reserve component prepare for this increased role in cyberspace? What should be the mix and the roles of cyber units in the AC and the RC? Should the offensive units reside in the AC, and the defensive units in the RC? (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil; and BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721)

99. In April 2015, Secretary of Defense Carter announced the publication of a new DoD Cyber Strategy. Evaluate the DoD Cyber Strategy in the context of securing U.S. interests. (POC: COL James Skelton, CSLD, james.a.skelton.mil@mail.mil)

100. Will the full implementation of the Joint Information Environment (JIE) initiative provide more protection in cyberspace? Why or why not? (POC: Dr. Jeff Groh, SSL, jeffrey.l.groh.civ@mail.mil, 717-245-3587)

101. Can and will future advances in cyberspace technologies fundamentally alter the concepts of landpower and land control? If so, how do you reconcile potential adversaries that cannot absorb cyberspace effects (e.g. North Korea)? How can we best secure our lines of communication and the global supply chain from cyber-attack? What communications infrastructure is key to ensuring continuity of operations and which require preferential investments for security? (POC: Dr. Jeff Groh, SSL, jeffrey.l.groh.civ@mail.mil, 717-245-3587)

102. What characterizes strategic deterrence in cyberspace? Is deterrence a precursor to defense? Is it part of a continuum from deterrence through defense, to include, cyberspace defense operations beyond the DoD Information Networks (DODIN)? Can deterrence be applied through a whole-of-nation approach? Should there be a Department of Cyber at the national level to facilitate a whole-of-nation approach? (POC: Dr. Jeff Groh, SSL, jeffrey.l.groh.civ@mail.mil, 717-245-3587)

103. Cyberspace capabilities underpin an immense U.S. military/Army superiority and consequently represent an equally immense and proportional vulnerability. With defense cyberspace measures predicated on knowing the pathogen (e.g. a virus) and offensive measures based on previously unknown exploits (e.g. zero-day defects), defensive measures inherently lag offensive ones. How can we influence the arms race

between offensive capabilities against our vulnerabilities and defensive capabilities to protect our superiority? (POC: LTC Jonathan A. Campbell, ARCYBER Operations, jonathan.a.campbell2.mil@mail.mil, 703-706-2376) Are current cyber policies, related Army and DoD directives and instructions, and Army and Joint military doctrine sufficient to underpin defensive and offense effects operations to achieve desired strategic outcomes? (POC: Dr. Jeff Groh, SSL, jeffrey.l.groh.civ@mail.mil, 717-245-3587)

104. How might the DoD, Joint Force, and specifically the Army recruit, train, and retain a ready cyber workforce? Do reserve component units provide opportunities for cyber warriors, by allowing them to hone their skills in civilian organizations? Discuss ways in which the military can effectively capitalize on education and professional cyber skill sets obtained in the civilian workforce for its military members. (POC: Dr. Jeff Groh, SSL, jeffrey.l.groh.civ@mail.mil, 717-245-3587; and LTC Jennifer Roberts, ARCYBER G1, Jennifer.a.roberts1.mil@mail.mil, 301-833-2012)

Futures

105. The US Army is the largest consumer of space-based capability and its warfighting mission success is directly tied to space and space enabled capabilities. An overwhelming culture within the Army incorrectly assumes space is exclusively an Air Force mission. The Army operates SATCOM, Space Superiority and deploys Army Space Support Teams in every GCC. How should the Army better posture itself and invest in space-based capabilities and effects that directly contribute to the Army Operating Concept and Warfighting Challenges? What solider supporting capabilities should the Army pursue that have the greatest benefit to the solider on the battlefield? (POC: Willie Nelson, SMDC/ARSTRAT, william.b.nelson.civ@mail/mil, 256-955-1226)

106. What future critical Army capabilities and functions are reliant on near-unconstrained access to technology? What Army future force (2025+) missions are at risk if the Army does not have either cyberspace supremacy or cyberspace superiority? (POC: Sam White, CSLD,samuel.r.white4.civ@mail.mil, 717-245-3797) [Related to issue # 7.]

107. The Army Operating Concept (AOC) states that the Army future force (2025+) needs to prevent enemy overmatch in capabilities or tactics. Given that the future environment will likely highlight pressured U.S. defense budgets complicated by our adversary's easier access to a range of technologies, it is useful for the Army to revisit the concept of overmatch when developing the future force. (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797)

a. In which area(s) must the Army invest fully to maintain overmatch and which areas can the Army accept prudent and mitigated risk?

b. How can the Army derive scalable overmatch – e.g., the Army future force (2025+) has global overmatch in some capabilities, regional overmatch in others, and peer-to-peer overmatch in yet others?

c. To what extent can U.S. overmatch in Soldier training, leadership, or other human dimension factors negate or equalize adversary technical overmatch?

d. What low-cost, low-technology solutions would allow the Army to mitigate the vulnerabilities of overmatch?

108. Are the Army Warfighting Challenges (AWFCs) as outlined in the Army Operating Concept (AOC) sufficient to describe the enduring characteristics of the Army future force (2025+)? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797)

109. How should the generating force transform to support Army operations as envisioned in the Army Operating Concept (AOC)? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797)

110. How should the Army's force generation and readiness processes transform to support Army operations as envisioned in the Army Operating Concept (AOC)? (POC: Sam White, CSLD, samuel.r.white4.civ@mail.mil, 717-245-3797)

– What is the impact of health readiness on the force generation process? Consider the concept of "lifespace" as a concept to improve force generation and readiness. (POC: COL Deydre Teyhen, OTSG Director, System for Health, Deydre.s.teyhen.mil@mail.mil, 703-681-9078)

111. Defense Health Agency: On Oct. 1, 2013, the Defense Health Agency was established by the Secretary of Defense. The DHA is responsible for driving greater integration of clinical and business processes across the Military Health System (MHS), implementing shared services with common measurement of outcomes, enabling rapid adoption of proven practices, helping reduce unwanted variation, and improving the coordination of care across time and treatment venues. (POC: COL Steven Owens, OTSG Reserve Affairs, steven.j.owens.mil@mail.mil, 703-681-1062)

a. Analyze what the AMEDD's core mission/s and strategic vision for the future should be as the Military Health System transitions the Defense Health Agency (DHA) to FOC. How should Army Medicine differentiate itself from its sister services and the DHA? What key capabilities should Army Medicine retain for the foreseeable future?

b. Analyze the pros and cons of merging all service specific Surgeon Generals into a Joint Surgeon General at the DHA.

112. At an Army of 490K, our excess infrastructure sits at 18 percent. How will the Army's Facility Investment Strategy (FIS) smartly eliminate excess infrastructure without compromising readiness and ability to accommodate potential future growth? (POC: IMCOM, G5 Strategic Planning Branch, usarmy.jbsa.imcom-hq.mbx.stratplans@mail.mil, (210) 466-0272)

113. What new strategic concepts are needed as the Joint force relies more heavily on robotics and other autonomous systems? (POC: Prof Steve Metz, SSI, steven.metz@us.army.mil, 717-245-3822)

114. How can the Army prepare to operate in highly contaminated environments such as after a nuclear exchange or pandemic? (POC: Prof Steve Metz, SSI, steven.metz@us.army.mil, 717-245-3822)

Homeland Defense/Security

115. Should the Reserve Component provide dedicated structure to perform Homeland Response Force missions? Given the constraints of posse comitatus, what are the advantages of aligning Army National Guard formations to the homeland security/defense mission? (POC: Prof John A. Bonin, CSLD, john.A.Bonin.civ@mail.mil, 717-245-3457; and COL Toney Filostrat, OCAR, Director of Strategy and Integration, toney.e.filostrat.mil@mail.mil, 703-806-7787; and BG George Schwartz, DCG, USAWC, george.schwartz@us.army.mil, 610-906-6721)

116. How might an increase in climate/weather driven ARNG domestic response missions affect future force structure planning assumptions and Reserve Component capabilities? (POC: Mr. Richard G. Kidd IV, DASA E&S, OASA (IE&E), richard.g.kidd6.civ@mail.mil, (571) 256-4710)

117. The Department of Defense's "Strategy for Homeland Defense and Defense Support of Civil Authorities acknowledges a requirement for air and maritime elements of the nation's armed forces to counter air and maritime threats, however, there is not a similar call for capabilities of the land component. While the likelihood of a conventional attack taking place within the U.S. is low, the consequence of being unprepared for such an attack could be devastating. How should the Department of Defense in general, and the Army in particular, prepare to be the "lead federal agency" in charge of defending our people within our borders? What "triggers" would signal the assumption of such a mission beyond the purview, capabilities and capacities of law enforcement? What "triggers" would signal the passing of principle authority from a defense mission to a law enforcement requirement? (POC: Prof Bert Tussing, CSLD, bert.b.tussing.civ@mail.mil, 717-245-4516)

118. In spite of improvements acknowledged by both the Guard and the Active Component through the Dual Status Commander concept, questions remain on the most effective, efficient command and control structure for major disasters, or catastrophic incidents that spread across multiple state borders. There is no clear indication of how the active component would optimize its support to multiple Dual Status Commanders; there is no clean delineation that lends itself to prioritizing the effort. Added to this uncertainty is the question of how to best integrate the Service Reserves into planning for and responding to major disasters or catastrophic events; the 2012 NDAA lifted legislative obstacles to the Reserves employment, but the implementation of the legislative intent remains to be developed. How, then, can the Total Force be best

configured and commanded in preparing for and responding to these kinds of events? (POC: Prof Bert Tussing, CSLD, bert.b.tussing.civ@mail.mil, 717-245-4516)

119. The Department of Homeland Security's "Southern Border and Approaches Campaign Plan" is an important initiative incorporating multiple components of the Department to address complex issues associated with the Caribbean basin and the Southwest border. However, the plan stops short of an interagency approach whose requirements are easily imaginable along a variable threat that begins with simple enforcement issues, continues through concerns over criminal threats of varying intensity, and could culminate in issues of security and potentially defense against the combined specter of transnational organized crime and transnational terrorism. What role should the Department of Defense take as an extension of the DHS Campaign Plan? What role should the Army take as the major land component of DoD's interaction? (POC: Prof Bert Tussing, CSLD, bert.b.tussing.civ@mail.mil, 717-245-4516)

120. Border defense strategies: Do we need to further investigate our border defense strategies, to include developing triggers for when a threat evolves from a public safety problem to one that is a national security threat? What measures should the Army take to support defense of our borders, to include countering transnational organized crime or possibly responding to an internally initiated asymmetric type attack? (POC: Prof Bert Tussing, CSLD, bert.b.tussing.civ@mail.mil, 717-245-4516)

Soldiers Committed to the Army Profession

Military Profession

121. After four years of intense effort to better identify itself as a military profession and change its behavior accordingly, how is the Army doing? Focus areas for additional research appear below: (Prof Don Snider, SSI, don.m.snider.civ@mail.mil, 717-245-3142; and CH(LTC) Jack Stumme, XO, Chief of Chaplains, jack.j.stumme.milAmail.mil, 703-695-1133)

      a. Institutional Behavior - "Adapting the Army" which is AOC Warfighting Challenge #4, requires an examination stratified among the five large cultures within the institution: officers, senior enlisted, enlisted, senior civilian, and civilian. Is the institution creating better policies and motivations for each of these cohorts to, in essence, "Adapt the Army" away from its bureaucratic tendencies?

      b. Individual perceptions of identities and how they are being implemented - new moral identities are being promulgated along with the new Army Ethic, "Trusted Army Professional" with the sub roles of Honorable Servant, Army Expert, and Steward of the Army Profession. Research is needed on how these are being operationalized in the various leader development programs throughout the Army schoolhouses and commands. Are these identities "taking"; do they make a difference in dispositions, motivations, and attitudes, which might then lead to different actions?

      c. Individual Moral Character of Army Professionals - Known now to be the weak link in professionalizing the Army; what major policy/doctrine changes are

needed? Should the Army start accessing based on non-cognitive tests of perseverance/character (need congressional approval?)? What is the Army's single, approved model of character development? How widely understood is it, how widely used, adequately resourced? How many mid-level officers is the Army now training in the behavioral sciences to lead the transformation of our antiquated personnel systems to talent management, character development, and professional expertise?

122.   What new capabilities and employment practices (tactical, operational, and strategic) have had the greatest impact on ethical military decision-making? How can senior army leaders prepare soldiers to make those decisions? (POC: Prof. Trey Braun, SSI, william.g.braun2.civ@mail.mil, 717-961-6718)

123.   How should military senior leaders reconcile the civil-military tensions created by their multi-role identities: executive branch agent, congressional advisor, and military commander/leader? (POC: Prof. Trey Braun, SSI, william.g.braun2.civ@mail.mil, 717-961-6718)

124.   Soldier diversity and institutional conformity both affect unit effectiveness. How can Army senior leaders develop an appreciation for an effective blending of these two dimensions of organizational effectiveness (or dysfunction) within the Army's Professional culture? (POC: Prof. Trey Braun, SSI, william.g.braun2.civ@mail.mil, 717-961-6718)

125. Just war and moral decision-making: Strategic-level advisors help senior leaders make hard decisions regarding policy and strategy, but related moral analysis is often bypassed in the hunt for solutions. What case studies demonstrate incomplete or missing moral analysis, and what were the associated costs? How do moral costs impact the human dimension? What moral decision-making frameworks can be integrated into policy and strategy formulation to strengthen justice in war and ethical outcomes in complex decision-making? (POC: Chaplain (Colonel) Jonathan E. Shaw, DCLM, jonathan.e.shaw.mil@mail.mil, 717-245-4471; and LTC Blake Stone, OTJAG International and Operational Law Division, blake.e.stone2.mil@mail.mil, 703-695-1756; and CH(LTC) Jack Stumme, XO, Chief of Chaplains, jack.j.stumme.mil@mail.mil, 703-695-1133)

126. The Department of Defense (DoD) has not leveraged the information instrument of national power to communicate effectively and credibly with a range of domestic and foreign audiences. DoD communication efforts suffer from a lack of policy and doctrine, and a failure to integrate and synchronize all efforts to inform, influence and persuade. Additionally, the DoD has shown an inability to assess the effects of communication campaigns. The result is that the DoD has spent much resources over the years on communication efforts that have not supported the achievement of mission objectives because of the lack of evaluation. What is a clear definition of strategic communication, and what is the overall strategy? Who should lead DoD strategic communication efforts? What is the right communication theory to underpin effective communication strategy? What steps should DoD take to provide effective communication policy and doctrine to the field? What are the core philosophies that should underpin DoD communication efforts? How should DoD instill a culture of research and assessment to the practice of strategic communication? How can DoD master a network and relational approach to

command communication power? How do these policies affect JIIM efforts to provide a coherent communication campaign? How can Army leaders improve efforts to integrate and synchronize the use of communication to inform, influence and persuade key audiences to achieve mission objectives? (POC: COL Cheryl Phillips, DDE, cheryl.d.phillips3.mil@mail.mil, 717-245-3181

127. Social Media: How can the Army leverage social media to get its strategic messages to external audiences? How has the impact of social media changed the information operations landscape both at home with the American public and during operations? Do we have the correct force structure, training, equipment, and technology to leverage social media and propagate our narrative and counter incorrect narratives? How can we train our leaders on social media and to what level? (POC: BG Malcolm B. Frost, OCPA, malcolm.b.frost.mil@mail.mil, 703-695-5135)

128. How must Army leaders change leader development, education, training, operational planning, and execution to adjust to a strategic environment where all military operations are broadcast in real time to a global audience? (POC: Prof Steve Metz, SSI, steven.metz@us.army.mil, 717-245-3822)

The Premier All Volunteer Army

129. Talent Management. With the opening of all MOSs to women, the percentage of women entering the Army may shift upwards. Women could soon hold many more key positions in the operational force. Should the Army develop programs aimed at increasing the number of women staying beyond their initial tour? (POC: COL Stephanie Howard, CSLD, stephanie.q.howard.mil@mail.mil, 717-245-4560; and COL Yong Cassle, XO, ASA (FM&C), yong.s.cassle.mil@mail.mil, 703-614-5548)

130. "Bridging the Civil-Military Gap": There is a gap between the U. S. society and its professional military, at least partially due to the end of conscription in 1973 and the subsequent success of the All-Volunteer Force. The civil-military gap may affect the political decision to engage in military conflict, accomplish military and political objectives, and ultimately win our nation's wars. What changes to the relationship between United States citizens and their professional military are necessary to bridge the civil-military gap? (COL Richard Killian, DDE, richard.d.killan.mil@mail.mil, 717-201-0444)

131. What are the societal and economic implications of maintaining an all-volunteer military force? (POC: COL Chris Bado, DMSPO, christopher.m.bado.mil@mail.mil, 717-245-3561)

132. Examine the implications of lifting the ban on women serving in combat units at large. How can the Army implement this change, looking beyond the in-depth study of standards, focusing on career path implications for women; recruiting, retention, mentorship; cultural implications; diversity education related requirements (i.e. the social psychological factors that influence the Army's ability to execute the change effort)? (POC: COL Robert Mundell, DCLM, Robert.m.mundell.mil@mail.mil, 717-245-4805)

Part III:

Army Warfighting Challenges

Army Warfighting Challenges (AWFCs) – enduring first-order problems, the solutions to which improve the combat effectiveness of the current and future force.

1   **Develop Situational Understanding – ** Lead: ICoE, Primary Support: MCoE/USASOC
How to develop and sustain a high degree of situational understanding while operating in complex
environments against determined, adaptive enemy organizations.

2   **Shape the Security Environment – ** Lead: MCCoE, Primary Support: USASOC
How to shape and influence security environments, engage key actors, and consolidate gains to achieve sustainable security outcomes in support of Geographic and Functional Combatant Commands and Joint requirements.

3   **Provide Security Force Assistance – ** Lead: USASOC, Primary Support: CAC
How to provide security force assistance to support policy goals and increase local, regional, and host nation security force capability, capacity, and effectiveness.

4   **Adapt the Institutional Army – ** Lead: MCCoE, Primary Support: AMC, ARCIC
How to maintain an agile institutional Army that ensures combat effectiveness of the total force, supports other services, fulfills DoD and other agencies' requirements, ensures quality of life for Soldiers and families, and possesses the capability to surge (mobilize) or expand (strategic reserve) the active Army.

5   **Counter Weapons of Mass Destruction – ** Lead: MSCoE
How to prevent, reduce, eliminate, and mitigate the use and effects of weapons of mass destruction (WMD) and chemical, biological, radiological, nuclear, and high yield explosives (CBRNE) threats and hazards on friendly forces and civilian populations.

6   **Conduct Homeland Operations – ** Lead: MSCoE
How to conduct homeland operations to defend the Nation against emerging threats.

7   **Conduct Space and Cyber Electromagnetic Operations and Maintain Communications –**
Lead: CyberCoE, Primary Support: SMDC
How to assure uninterrupted access to critical communications and information links (satellite communications [SATCOM], positioning, navigation, and timing [PNT], and intelligence, surveillance, and reconnaissance [ISR]) across a multi-domain architecture when operating in a contested, congested, and competitive operating environment.

8   **Enhance Training – ** Lead: MCCoE, Primary Support: CAC-T
How to train Soldiers and leaders to ensure they are prepared to accomplish the mission across the range of military operations while operating in complex environments against determined, adaptive enemy organizations.

9   **Improve Soldier, Leader, and Team Performance** – Lead: MCCoE
How to develop resilient Soldiers, adaptive leaders, and cohesive teams committed to the Army professional ethic that are capable of accomplishing the mission in environments of uncertainty and persistent danger.

10 **Develop Agile and Adaptive Leaders** – Lead: MCCoE
How to develop agile, adaptive, and innovative leaders who thrive in conditions of uncertainty and chaos and are capable of visualizing, describing, directing, and leading and assessing operations in complex environments and against adaptive enemies.

11 **Conduct Air-Ground Reconnaissance** – Lead: MCoE, Primary Support: AVCoE
How to conduct effective air-ground combined arms reconnaissance to develop the situation rapidly in close contact with the enemy and civilian populations.

12 **Conduct Joint Expeditionary Maneuver and Entry Operations** – Lead: MCoE   CHANGE
How to project forces, conduct forcible and early entry, and transition rapidly to offensive operations to ensure access and seize the initiative.

13 **Conduct Wide Area Security** – Lead: MCoE, Primary Support: AVCoE
How to establish and maintain security across wide areas (wide area security) to protect forces, populations, infrastructure, and activities necessary to shape security environments, consolidate gains, and set conditions for achieving policy goals.

14 **Ensure Interoperability and Operate in a Joint, Interorganizational, and Multinational Environment** – Lead: MCCoE, Primary Support: USASOC
How to integrate joint, interorganizational, and multinational partner capabilities and campaigns to ensure unity of effort and accomplish missions across the range of military operations.

15 **Conduct Joint Combined Arms Maneuver** – Lead: MCoE, Primary Support: AVCoE   CHANGE
How to conduct combined arms air-ground maneuver to defeat enemy organizations and accomplish missions in complex operational environments.

16 **Set the Theater, Sustain Operations, and Maintain Freedom of Movement** –
Lead: SCoE, Primary Support: AMC
How to set the theater, provide strategic agility to the joint force, and maintain freedom of movement and action during sustained and high tempo operations at the end of extended lines of communication in austere environments.

17 **Integrate Fires** – Lead: FCoE, Primary Support: SMDC
How to coordinate and integrate Army and JIM fires in combined arms, air-ground operations to defeat the enemy and preserve freedom of action across the range of military operations.

18 **Deliver Fires** – Lead: FCoE, Primary Support: SMDC
How to deliver fires to defeat the enemy and preserve freedom of action across the range of military operations.

19 **Exercise Mission Command** – Lead: MCCoE
How to understand, visualize, describe, and direct operations consistent with the philosophy of mission command to seize the initiative over the enemy and accomplish the mission across the range of military operations.

20 **Develop Capable Formations** – Lead: ARCIC CDD
How to design Army formations capable of rapidly deploying and conducting operations for ample duration and in sufficient scale to accomplish the mission.

AVCoE = Aviation Center of Excellence   *AMC = US Army Materiel Command*
FCoE = Fires Center of Excellence   *ARCIC = Army Capabilities Integration Center*
ICoE = Intelligence Center of Excellence   *CAC = US Army Combined Arms Center*

MCoE = Maneuver Center of Excellence
MCCoE = Mission Command Center of Excellence
MSCoE = Maneuver Support Center of Excellence Command
SCoE = Sustainment Center of Excellence
CCoE = Cyber Center of Excellence

CAC-T = CAC-Training
CDD = Capabilities Developments Directorate
SMDC = US Army Space and Missile Defense
USASOC = US Army Special Operations Command

Army Warfighting Challenges Online:

❖ Contribute at milBook Collaboration Site:
https://www.milsuite.mil/book/groups/army-warfighting-challenge-awfc-group
❖ Public site (not requiring a CAC or password):
http://www.arcic.army.mil/Initiatives/army-warfighting-challenges.aspx
❖ milWiki NIPRNet: *https://www.milsuite.mil/wiki/AWFC*
❖ SIPRNet collaboration site:
https://intellipedia.intelink.sgov.gov/wiki/Army_Warfighting_Challenges