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**JOINT STAFF J-7 FUTURE JOINT FORCE DEVELOPMENT  
OBSERVATIONS AND INSIGHTS REPORT**

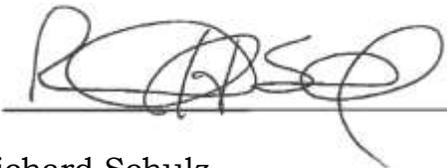
**2 May 2014**



**U.S. Army War College 25<sup>th</sup> Annual Strategy Conference  
“Balancing the Joint Force to Meet Future Security Challenges”  
8-10 April 2014**

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This report has been reviewed and approved by:

 on 14 May 2014

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## About the U.S. Army Strategy Conference

The Joint Staff J-7 co-sponsored the 25th Annual Strategy Conference, which is the U.S. Army War College's flagship event for the thoughtful examination of key strategic issues confronting a target audience of senior uniformed and civilian leaders from the Department of Defense. The theme of the conference was "Balancing the Joint Force to Meet Future Security Challenges." It was designed to examine two key questions. First, what are the most important military demands for U.S. and allied and joint forces through the current decade and second, how should they prepare to meet them?

This report provides observations and insights from the panel and keynote discussions and is focused on three themes especially relevant for Future Joint Force Development efforts; understanding the key conditions within the international environment that future joint forces will face; refining the attributes of future roles and missions for the Joint Force, and; developing corresponding implications for the structure and function of the future Joint Force. The report concludes with a selection of key observations about impact of the ideas expressed during the conference for the portfolio of current Joint Concepts and those currently under development across the joint community.

## Introduction

On April 8-10, 2014, the U.S. Army War College and the Joint Staff J-7 collected an array of national security policymakers, strategic thinkers and defense intellectuals, both uniformed and retired military officers and civilians. The purpose of bringing these practitioners and thinkers together over three days of panel sessions and keynote speeches was to examine two key questions facing the U.S. military today and into the future. First, what are the most important military demands for U.S. and allied and joint forces through the current decade and second, how should they prepare to meet them?

This partnership allowed the Joint Concepts Division (JCD) to take advantage of the experience and thoughtful insight of a range of experts that may otherwise be inaccessible. By shaping the conference to answer key questions and issues important for future joint force development, JCD could be an active participant in this high-level conversation focused on national strategy relevant to joint force operations. The Joint Staff partnered with the Army War College with the goal of addressing three key objectives relative to future joint force development activities. These objectives drove overall conference design, including panel topics and participants and keynote speakers, and a full list of the subsidiary objectives within objectives 1-3 can be found at *Appendix B* of this report.

- Objective 1: Refine our understanding of the emerging operational environment and define a pressing set of potential future joint force challenges.
- Objective 2: Develop recommendations on the key priorities for joint force development over the next decade that; 1) support Globally Integrated Operations, and; 2) are feasible within the context of the Strategic Choices

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Management Review (SCMR), Quadrennial Defense Review (QDR), and other emerging strategic constraints or guidance.

- Objective 3: Encourage discussions that contribute to the prioritization of military challenges with potential solutions for future joint force development.

As a whole the conference met the objectives set out prior to the event and contributed to a better understanding of the emerging operational environment, potential future joint force challenges, recommendations on key Joint Force development priorities and potential solutions to assist in the development of joint concept solutions.

### **Summary of Observations and Insights from the Conference**

This report does not recapitulate individual speeches and panel discussions or otherwise summarize particular discussions that occurred over the course of the conference. To view the panels, please refer to the videos of each event, which can be found at the AWC Strategy Conference Website here:

<http://www.strategicstudiesinstitute.army.mil/conf/2014video.cfm>

Instead, this report provides the reader a summary of the major themes and issues relevant to future joint force development activities in two sections – the *Future Operating Environment*, and *Implications for Ongoing Joint Concept Development Activities*. A summary of the findings of the conference within these two areas follows.

#### *The Future Operating Environment*

In many different ways, the conference highlighted the emerging operating environment as one that is “bifurcated” in nature. At the high-end, a number of states are attempting to revise regional and global order in their favor, while at the low end, growing disorder in many parts of the world threatens the U.S. and its allies with disruptive challenges that may be difficult to anticipate or counter. The challenge for future joint force development will be in reconciling the military requirements of high-end threats to favorable regional and global strategic balances with the need to confront potentially disruptive threats that emerge from a disordered world.

It is unclear whether the force can be proficient in both within today’s fiscal constraints. Balancing the force to address low end threats may risk a world in which other great powers decisively shift the international order in ways highly unfavorable to the U.S. and its allies. Placing too much emphasis on capabilities to contain or disrupt an expansionist state power may discount potentially disruptive threats or human catastrophe resulting from disorder and insufficient governance which have demonstrated a troubling tendency to fester and emerge as surprise or strategic shock for U.S. national security.

The conference refined a number of key implications of technological change for the joint force, particularly in the proliferation of small, cheap, and precise weapons which may increase the importance of the operational defensive. Anticipating and accommodating new roles and missions while protecting and expanding core advantages was seen as an important area of focus for future joint force development

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activities. Furthermore, the conference highlighted the need to focus on both technologies and on novel operational approaches to ensure the mobility and strategic deployability of the Joint Force in the future.

### *Implications for Ongoing Joint Concept Development Activities*

The conference provided several observations that support and refine many of the ideas within each of the current concept development efforts. It suggested several important areas for joint concepts to fully account for, including in directed energy, electromagnetic spectrum operations, and cyber warfare. The conference frequently highlighted the need for future joint force development activities to fully understand and the implications of the wide proliferation of robotics and unmanned systems for future warfare. The conference also highlighted the importance of addressing weapons of mass destruction (WMD), noting that importance of the assumption of the non-use of WMD underpins most aspects of the U.S. way of warfare.

### **The Future Operating Environment**

The *Future Operating Environment* section of this report presents observations and insights in terms of the three steps in the Joint Staff J-7 Joint Concept Development futures process. These include:

- Frame the environment; this part of the report – titled *Key Conditions* – provides a view of the future international environment relevant to the future Joint Force. It begins with a synthesis of those critical environmental factors across human geography, science, technology, and engineering, and world order that the Joint Force will most likely encounter.
- Frame the problem; this part of the report – titled, *Roles and Missions for the Future Joint Force* – develops themes related to how the joint force can balance capabilities based on the environmental conditions described within the key conditions described above.
- Develop implications for the future Joint Force; this part of the report –titled *Future Joint Force Implications* – describes how environmental conditions may impact joint warfighting and lays out several structural and functional implications for the future Joint Force.

### *Frame the Environment: Key Conditions*

The ongoing transition from a post-Cold War world characterized by U.S. hegemony to something different is accelerating. That “something else” has a number of features that were common over the course of the conference. Four or five states are testing the limits of U.S. power with varying degrees of initiative or aggression.<sup>1</sup> Meanwhile, there remain powerful forces within the economic, social, ideological and natural resource areas in particular which are overwhelming the ability of a large number of fragile states to maintain domestic order, resulting in significant security-related problems for both their citizens and for security across regional and global ranges.

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<sup>1</sup> These included: China, Russia, Iran, North Korea, Venezuela.

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### A Bifurcated World

This theme of a “bifurcated” international environment featuring aggressive geopolitical maneuvers by a small but collectively powerful group of revisionist states on one hand, and of growing disorder and social fracture in a broad array of weak states, particularly in Africa, the Middle East, and Central Asia on the other. At the high end, the U.S. is and will be increasingly challenged by a small group of revisionist states seeking to change various regional balances of power in a manner unfavorable to U.S. interests and the interests of its allies. On the other hand, the U.S. will be confronted by disorder across wide areas of the world as an array of states remain or are increasingly incapable of maintaining domestic order.<sup>2</sup>

### Unfavorable World Order

The world’s economic and military center of mass is shifting east to Asia, reflecting a high degree of economic dynamism and technological prowess. These factors are being translated into expansive new military capabilities, with the fastest growth in military power accounted for in Asia, particularly China, India, and Japan. This theater is largely maritime in nature, and militaries throughout the region are building navies, integrated missile systems, air forces, cyber and space forces, and expeditionary and marine ground forces. At the same time, Asia is itself “rebalancing” toward the Middle East and the Indian Ocean littoral. East Asia is increasingly linked through trade with the Middle East and the rest of the Indian Ocean littoral. The need to protect the energy trade in energy security from the Middle East to Asia will increase the importance of and interest in naval power and maritime surveillance here. China’s entry and presence in this region will mark its transition from a mere regional power to power of global significance. In fact some African states will join this Asia-centric trading regime, with some nations, particularly in East Africa, growing and modernizing quickly in the next two decades. New infrastructure, investment, and trade patterns will result.

Although China’s net national power is growing rapidly, there was a significant measure of agreement that China is and should not be seen as the strategic or even moral equivalent of the former Soviet Union. Several issues will set it apart and thus, from a joint force perspective, China’s aggressive global growth will have to be addressed differently. In particular, China’s commercial and economic success, its integration with the global economy in general and with the U.S. as a trading partner, and its growth as a major maritime trading state mean that the country will have broad global interests, and is perhaps “uncontainable” in the same sense as the Soviet Union was. Although China’s rise has been largely peaceful for over two decades, many commentators noted a sharp discontinuity from an extremely high to “merely” normal rate of growth will disrupt China’s political and economic system, resulting in a more tumultuous and nationalistic China in the immediate future.

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<sup>2</sup> This bifurcated world order was framed many different ways over the course of the conference, including: the capacity of states vs. the character of international relations; wars of necessity vs. wars of choice; state vs. nonstate conflict; disordered world vs. unfavorable global order.

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Meanwhile, Russia has provided a convenient look inside the “playbook” of these revisionist powers. Great power aggression will see information operations and strategic deception feature prominently. It will tightly integrate information operations, subversion, and the inclusion of irregular/SOF augments to shape the battlefield. Regular forces (and in the case of China, maritime patrol and coast guard forces), will “control” the disorder created and encouraged during the unconventional phase of the operational thrust.

**A View on Emerging Environments:  
Opportunities and Advantages**

Although we spend an impressive amount of time thinking about threats and challenges, the next few decades also present some opportunities – some quite favorable for American power and influence in the coming century. Some examples include:

*Human Geography*

- Rise of the global middle class
- Emergence of values/priorities consistent with U.S.
- Tools for individuals to communicate and organize across borders and regions more easily

*Science, Technology, and Engineering*

- The shale gas revolution
- Big Data
- 3D Printing
- Biotechnology
- Robotics and algorithms
- Quantum Computing

*World Order*

- Growing array of substate actors and individuals focused on economic growth and human development.
- Emergence of new economic powers tied to U.S.-made globalized world.

Derived from Mr. Barry Pavel  
*Competition and Chaos: Future Military  
Demands in CENTCOM and PACOM*  
Remarks for the 25<sup>th</sup> Annual  
Army Strategy Conference (11:40)

The dearth of formal multi-partner alliances or security institutions in Asia relative to other parts of the world may exacerbate tension and instability in this region as well. Most U.S. partnerships in the region are bilateral in nature, with little security consultation and cooperation among regional states – even in partnership with the United States. In this world, a formal and coordinated alliance between Russia and China would be the worst possible world, and the U.S. should carefully avoid providing incentives for this to become a reality.

Increasing Disorder

Disorder (particularly within un- or under-governed states) was the second major theme discussed at the conference alongside the challenge posed by state powers. The end of the imperial order in the 1960s, and later the end of the post-colonial strongman has left many states without a legacy of strong institutions – those things such as infrastructure, electricity, communications, and basic governance that allow people to live. Because of this, substate groups and armies have emerged to fill the void left behind by weak governance.

These groups often present difficult military challenges and are dangerous because they believe in and act on popular and sometimes violent doctrines focused on overturning regional or world order. This is different from the weak states these identity-based groups are replacing, which focused internally, developing and extending personal and state power, but generally

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within the current framework of international laws and norms. Additionally, the emergence of wide ranging information and mobile technologies was seen as corrosive to hierarchical state order, able to undermine and outwit governance mechanisms of even capable states, however, no network-based organization has discovered how to govern – only to confront, subvert, or overturn existing mechanisms of state order.

Urbanization in the developing world was seen as proceeding at an explosive pace. Several commentators noted that urban societies are substantially more difficult to govern than rural societies. Furthermore, the most acute urban problems in the future will not take place within established megacities in the developed world, but rather in new and unplanned megacities. These cities are more prone to dysfunction because of the high degree of infrastructure need to properly function and the need for responsive urban governance to manage and mitigate these challenges before they result in social disorder or violence.

### Finding Balance in a Bifurcated World

Given pressures within the U.S. on budgets, there was significant concern that for the foreseeable future the Joint Force must have the capabilities available to protect world order without committing too large a portion of U.S. national and military power to the expensive business of remaking foreign cultures and societies. Because the U.S. is becoming less dependent on imported energy (and at the time of the conference was in fact the largest producer of energy in the world), the U.S. may in some ways see its relative power increase. However, the global system depends on the free flow of energy from the Middle East to Asia and Europe as well. Any disruption could upset international relations at the systemic level.

Thus, a key challenge for the Joint Force in such a world is avoiding orienting force capabilities too heavily on either the challenge of unfavorable order, or of disorder arising in a under or misgoverned state resulting in wider disruption of the global systems. Balance means addressing each side of this equation. This also means an increasing role for the Joint Force in maintaining and developing partnerships around the world, and in prioritizing and addressing friendly security concerns. One of the key dangers is to avoid balancing Joint Force capabilities towards addressing “desirable” threats that can be addressed by our preferred way of war and discounting less “desirable” but more likely threats that arise from global disorder.

A fundamental assumption about the future environment was the fact that all discussions in the conference were predicated on the non-use of nuclear weapons. One commentator noted that most – if not all – of the conditions, roles and missions, and joint force implications discussed over the conference would likely be overturned if nuclear weapons were used anywhere in the world. Use of nuclear weapons in a conflict or terrorist attack would immediately change the basic frame of reference and overturn U.S. force development priorities.

### *Frame the Problem: The Roles and Missions of the Future Joint Force*

A recurring theme over the course of the conference was the idea that discussions of the roles and missions for the Joint Force has evolved, moving substantially beyond

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lines between Service responsibilities. Defining the core competencies of the Services relative to one another was viewed as a debate largely settled. Panel speakers encouraged the Joint and Army force development communities to shift thinking toward developing a better Joint understanding of the different advantages and vulnerabilities of the warfighting domains and how the Joint Force can effectively combine capabilities across domains to develop and employ these advantages relative to potential adversaries. Few saw the need to re-open the roles and missions debate which was seen as mostly settled by Goldwater Nichols.<sup>3</sup> However, growing interdependence of capabilities resident in different domains requires greater thought.

### Effective Future Force Development in National Strategy

The roles and missions discussion at the conference focused on how to develop effective military strategy in a complex and generally uncertain environment. It was frequently noted that a democratic and status quo power like the United States has difficulty developing and implementing effective grand strategy. As a power generally satisfied with the current world order, it is frequently reactive to states or powers that wish to revise the international environment in some way. Furthermore, one speaker reminded conference participants that the U.S. is constitutionally designed to separate and limit power, placing fundamental limits on its exercise of national power in the international system.

In this context, balancing the Joint Force at the highest levels of National strategy should be informed and conditioned by articulating answers to several major assumptions about what we will need in the future including:

- The size and number of contingencies the Joint Force will face
- How much warning time the force will have for each contingency
- How deeply and extensively political leaders will mobilize the Nation in response to each contingency.

These assumptions were proposed as essential to getting at the proper balance of Joint Force capabilities. Exercising these assumptions should explore the match between combatant command demands and the supply of capabilities and forces provided by the Services and the level of risk the force is accepting across each. Moreover, these should be used to assist in examining the overall balance among efficient, cost effective acquisition of those capabilities needed with the need to ensure the required redundancies and replacements the force will need in the face of multiple ongoing contingencies or possible losses in conflict.

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<sup>3</sup> Goldwater Nichols places "...clear responsibility on the commanders of the unified and specified combatant commands for the accomplishment of missions assigned to those commands and ensure that the authority of those commanders is fully commensurate with that responsibility; to increase attention to the formulation of strategy and to contingency planning; to provide for more efficient use of defense resources [and to]..., otherwise enhance the effectiveness of military operations."

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Anticipating and Accommodating New Roles and Missions

Many panelists discussed how the Joint force can accommodate the growing importance of several emerging missions. Several examples discussed in the conference included, for example, how the Joint Force should balance Service roles and combatant command missions in areas such as cyberspace operations, integrated intelligence, surveillance and reconnaissance, and in unmanned precision strike.

Answers to these questions, it was suggested, should determine what kind of Joint Force will we develop with the resources we are entrusted. There is a difficult balance to maintain and sustain the force for ongoing current challenges, but also to husband and protect core skills that will be needed for contingencies that may not be obvious or apparent today. With national ends generally fixed, and means declining rapidly, there will be a premium on more innovative and effective “ways” of addressing national security challenges with the portfolio of Joint Force capabilities.

Several uniformed conference participants cautioned that military advice must articulate and define the heightened risk inherent in attempting to do “more with less.” For the foreseeable future, force development activities should be premised on budgetary assumptions far lower than today’s. The implication of this for the future force developer is that the Nation will may in fact be driven to do “less with less.”

Finally, roles and missions were discussed extensively with regard to the activities of the National Security Council and in planning national strategy as a whole for the Nation. Although this debate may not be as important to the Joint Force, clarifying roles and missions across the whole of government and within the context of homeland security operations remains fertile ground for further discussion and debate constitutional and other political constraints notwithstanding.

**Developing Effective Joint Force Combinations**

It is critical to untangle future force planning itself from strategy. It is also critical to sequence and overlap several scenarios to better understand how enablers may support multiple, near simultaneous contingencies if these are anticipated. How do we construct future forces for an uncertain future and what scenarios might throw light on the necessary force development trades right now? Three illustrative contingencies might serve as a baseline to stress the force.

- Protracted peace enforcement in a fragile, large state (Maintenance of Army, Marine Corps and SOF IW proficiency)
- Conflict in the Taiwan Straits (Integration of Naval and Air Force units, and space and cyber forces)
- Conflict in Korea/Combined force counterattack (Heavy Army/Combined Arms proficiency)

By shifting timelines among these contingencies, the military professional can explore the trades required to succeed among major force types. Once a convincing force construct is developed against these three scenarios, it should be further developed and refined using other combinations of contingencies to uncover gaps and considerations the initial scenario set and/or timelines may have missed or overlooked.

Derived from Admiral Dennis Blair (USN) Ret.  
*Shaping the Joint Force for Future Demands*  
Remarks for the 25<sup>th</sup> Annual  
Army Strategy Conference

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### *Develop Implications: Future Joint Force Implications*

A key objective of Joint Staff J7 participation in this conference was to develop recommendations on the key priorities for joint force development within the context of the SCMR, QDR, and other emerging strategic constraints or guidance. A number of implications for the Joint Force were uncovered or reinforced over the course of the conference. Most of these implications flow from a perception that for many potential adversaries, the U.S. is seen as the pacing threat. As such, many around the world are closely observing and studying the U.S. way of war. They are working across the board to narrow some of our traditional strategic advantages or in some cases developing new and different sources of advantage that may transcend or otherwise obsolesce our way of conducting joint operations altogether.

### Technological Change and Joint Operations

The acceleration of technological change in general, the application of these new technologies to new weapons and capabilities, and the proliferation and integration of these capabilities into foreign militaries and concepts factors increasingly challenges the Joint Force on several key fronts. Adversaries understand that the U.S. requires global deployment capabilities to bring force to bear long distances from U.S. shores and focused on targeting key vulnerabilities in the global U.S. deployment system. The cost to project power in many cases, far outstrips the cost to deny and disrupt strategic, operational, and tactical mobility. Missile systems can target fixed basing at long range. In the future the speedy proliferation of UAVs around the world will continually lower the bar for entry for a range of adversaries to leverage airpower. Consequently, the U.S has a growing power projection problem.

The availability of ubiquitous, pervasive surveillance combined with accuracy at a distance also threatens to force a shift in how the Joint Force operates. One panelist asserted that military advantage is shifting to the force practicing the tactical and operational defensive. Much of this shift can be accounted for by the fact that capabilities once achievable at great expense are now relatively cheap, but still precise weapons.

This means that large, expensive, and few multirole platforms are at risk of being overwhelmed by the many, cheap, and small precision systems. In this environment, a key implication is the need to leverage mass customization in manufacturing with agile and adaptive procurement across the force. Warfare is always a competition, and several panelists articulated the need to innovate, procure and deploy at the speed of warfare. Under these conditions, the force that can rapidly develop, integrate, and install new sensors, emitters, warheads, etc. on existing platforms, and iterate as the threat iterates will have a decisive advantage.

The Joint Force will have to think about how to take advantage of the small and cheap, as well as new technologies and approaches that serve to restore the offense to the battlefield. The current approach to developing and employing precision high-end precision guided weapons may not be able to keep pace with this mode of warfare and may need new capabilities to balance and augment our current approach to

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reconnaissance strike. Although it cuts against the U.S.'s preferred approach to capability development, the Joint Force should encourage that small, cheap, and effective capabilities are considered in addition to the big, sophisticated and expensive.

Among the capabilities highlighted in the conference to address this need include directed energy weapons, specifically high-energy lasers rated at greater than 100 kilowatts maximum output and electromagnetic railguns. Each provides defensive and offensive punch that may assist in offsetting this cost advantage for the defense. Directed energy has the potential to shift the cost balance by offering precision effects, high speed of engagement, and magazine depth to lower the cost per shot and improve the cost of ration in an exchange of salvos.

High-powered microwave systems married to long range precision strike missiles can strike dozens or even hundreds of electronic targets per round, providing a powerful force multiplier to degrade adversary C4ISR systems and eroding their ability to precisely target mobile U.S. forces at long range. Wide use of high-powered microwaves in the offense and digital radio frequency memory to digitally capture and retransmit signals in the defense can together improve the ability to access, manipulate, or deny electromagnetic spectrum. Robotics, new precision strike capabilities, directed energy systems, and proficiency in the electromagnetic spectrum can support the restoration of offense to the battlefield central to the U.S. way of war.

Future Force Development More than Technological Advances Alone

The conference reinforced the importance of ensuring that future force development should not just be about the improvement and integration of technologies. Panel discussions reinforced the idea that the Joint Force must focus on marrying emerging technologies with new future operational concepts. Several focus areas for concepts were identified, including new ways to station capabilities forward with improved operational mobility and survivability; concepts to improve readiness and overall availability of relevant force at the point of crisis; redundancy; the ability to operate in restricted command and control environments; deception in an information-rich environment; ASATs; dominant strategic nuclear deterrent, and strategic depth and resilience in the face of adversary application of potentially precise firepower. Additionally, several panelists noted the need to rethink how the Joint Force deters and confronts expansionist nuclear powers.

Two examples of future operating concepts that do not fit comfortably within the current U.S. way of war, but may have

<p><b>The Advantages of “Tail” Over “Tooth”</b></p> <p>Acquisition particularly of high-profile weapons systems gets a great deal of attention. However, U.S. global reach is predicated on intangibles. These intangibles and the resulting level of global reach are the most telling U.S. military advantage. These intangibles include:</p> <ul style="list-style-type: none"><li>• The U.S. global alliance network</li><li>• The logistics capability to globally move and sustain the force against opposition</li><li>• Maintenance, inventory, personnel, portfolio of capabilities.</li></ul> <p>Derived from Dr. Sam Tangredi <i>“Tail is More Important than “Tooth”</i> Remarks for the 25<sup>th</sup> Annual Army Strategy Conference</p>
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strategic utility included, for example, denial operations or focused punishment campaigns, short of occupation and COIN operations. A second possible concept included how future forces may control key terrain or chokepoints using DEW-enabled “bastions,” or “fortresses” to protect land based counterbattery, and anti-ship weaponry.

Conference participants noted, however, that force development activities should not focus on the identifying and deploying the next disruptive platform. No successors to the tank, aircraft carrier, or multirole combat aircraft are waiting in the wings to replace any current core Service platforms. The emphasis in this environment is, instead on the integration of a wide variety of new technologies below the “platform” level.

### Joint Understanding of Robotics and Unmanned Systems

The one exception to this basic idea discussed was robotics and unmanned systems, which could potential obsolete a number of key platforms. The conference suggested the need to further explore the use of robotics and unmanned systems and how they may be expanded to contribute to joint operations in the future. This discussion focused on better understanding the problems unmanned systems may assist in solving, and the likely vulnerabilities or obstacles to expanded unmanned systems usage. Joint force development activities should identify the likely countermeasures that potential adversaries will employ to prevent the U.S. from bringing robotic and unmanned system advantages to bear in conflict. These may include attacking command and control and data links between human controllers and the unmanned platforms.

Additionally, the future joint concepts should more thoroughly discuss legal and ethical challenges to expanded unmanned systems usage and how the future Joint Force may remedy these potential difficulties to aid in their expanded operational employment. The key limiting factors for this trend however is the difficulty in protection communications links, cyber vulnerabilities, and the inadequacy of algorithms for the autonomy of systems, particularly in more complex, congested, and uncertain environments.

### Protecting and Extending Key Advantages

Given these changes, one presenter outlined several Joint Force and National technical “crown jewels” that are critical to retain and extend in the future. These included global command, control and communications, cyber technical capabilities, proficiency in electronic warfare, unmanned ISR and precision strike, undersea warfare, Special Forces, and secure strategic deterrence capabilities. Many panel discussions reinforced the need to retain and investing in these key U.S. advantages.

### **Implications for Ongoing Joint Concept Development Activities**

The conference proceedings have also been assessed for the impact of these discussions on existing joint concept development efforts. This section of the report is subdivided by the implications for each specific concept, and describes what we

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learned about the concept problem or solution and what (if anything) might need to change based on conference discussions. While the three primary objectives of the conference were well supported by the discussions over the three conference days, no new information was uncovered that significantly alters the course of any of the joint concepts currently under development. The conference did however provide information that supports and refines many of the ideas in the existing concept development efforts.

*Joint Concept for Electromagnetic Spectrum Operations (JCEMSO)*

The conference addressed the JCEMSO primarily in reinforcing terms, most specifically on two sections: emerging trends and resiliency. When considering emerging trends, panelists expressed their concern that the Joint Force is losing its EMS dominance. In future wars, unhindered access to the EMS is not guaranteed. These sentiments resonate with the JCEMSO's section on emerging trends and the contested nature of the EMS. Additionally, these assessments support the JCEMSO's call for a focus on EMS superiority.

Speaking to resiliency, one panelist noted that in past conflicts, we developed our maneuver plan and then our Command and Control (C2) plan to support an optimal maneuver plan. The panelist speculated that, in a contested EMS environment, the maneuver plan may be constrained by what is feasible to C2. Additional observations on resilience were offered by other panelists, who noted that subordinates operating within commander's intent can mitigate the challenge of operating in a degraded, intermittent, low-bandwidth, limited access environment.

*Joint Concept for Rapid Aggregation (JCRA)*

Force Aggregation issues are to some extent tied to specific locations, threat capabilities, and senior-leader decision making. The conference highlighted the need to increase the treatment of geographic factors within aspects of the JCRA concept. The conference also highlighted the growing importance and capabilities of unmanned systems. In addition to the familiar use of unmanned system in ISR and Strike, there are many efforts ongoing in the Services to apply unmanned capabilities to rapidly establishing C2 links, aiding sustainment missions, and providing combat support functions such as Electronic Warfare (EW) and CBRN reconnaissance. Each of these has the potential to enable the joint force to aggregate more quickly for crisis. Drawing from the conference discussion and follow-on engagement with the capabilities development and science & technology communities, JCRA will look to increase its leverage of unmanned systems within its conceptual solution. Additionally, the required capabilities section within the JCRA will need to clearly identify unmanned systems that enable the Joint Force to rapidly bring firepower to bear.

*Joint Concept for Cyberspace (JCC)*

The conference reinforced the need for the JCC. The panelists agreed on the growing importance of cyberspace operations in future warfare and noted that the United States is already persistently challenged within cyberspace. Although the JCC is still

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immature in its development, the conference echoed the JCC's central idea of the need to normalize cyberspace operations. Panelists observed that the Joint Force's approach to cyberspace should mirror the "freedom of action" considerations of the physical domains. Furthermore, panelists advocated for better integration of cyberspace operations with physical operations, which is a desired outcome of implementing the JCC. A panelist mentioned he looked forward to working side-by-side with a cyberspace component commander, implying that additional structure may be necessary to fully employ the capabilities of a well-developed and integrated cyber force.

The conference also provided insight into how the classification of the JCC may discourage distribution and limit readership as has been observed with Joint Publication 3-12, the classified joint doctrine on cyberspace operations. Drawing from that insight, Joint Concepts Division will scrutinize the need for the classified portions of the JCC and make recommendations to USCYBERCOM regarding an unclassified version of the concept, supported by classified annexes as necessary. Other conference comments suggested that cyberspace is more-easily framed when the component layers (physical, logical, and persona) are used to describe the space. This doctrinal categorization helps warfighters to better understand the area of operations and will be used in the JCC to help reduce the complexity of cyberspace.

### *Joint Concept for Countering Weapons of Mass Destruction (JCCWMD)*

The conference highlighted the scope and scale aspects of Biological-Chemical (B-C) WMD in comparison to Radiological-Nuclear (R-N) WMD. This matter needs additional emphasis in the Future Operating Environment section of the Joint Concept for Countering WMD. This is particularly true given that there have been numerous conflicts and incidents associated with actual B-C WMD use or transfer since World War II. Additionally, the conference discussion clearly indicates that the concept needs to thoroughly discuss the differences in deterring, countering, consequence management and elimination that are associated with threat B-C WMD capabilities. In general, B-C weapon stockpiles are far more bulky with numerous dispersal locations and a much larger number of related warheads. This may require significantly more assets and time to properly secure and eliminate threatening or lose B-C WMD, compared to R-N weapons and warheads. On the production and precursor side, there are more similarities in the scale of the problem between B-C and R-N WMD. However, as discussed in the conference, there is a more challenging "dual-use" production technology component associated with B-C WMD and therefore the concept may need to further address this issue.

### **Conclusion**

Based on the bifurcated environment described in the environmental discussions within the report, the challenge for future joint force development will be in reconciling the military requirements of high-end threats to favorable regional and global strategic balances with the need to confront potentially disruptive threats that emerge from a

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disordered world. Key to an optimally balanced joint force in this context will be to understand the relative compatibility between high end and low end warfighting approaches. At the high end, the force must be capable of conducting a comprehensive deterrence/assurance campaign, and fielding credible anti-access, area denial, and decisive force components. At the low end, the force must be capable of interacting with and operating among the people in operations ranging from counterinsurgency campaigns, promotion of effective governance, and in providing or encouraging area security in the face of natural or human catastrophe.

Within today's fiscal constraints, it is unclear whether the force can be proficient in both. Balancing the force to address low end threats may risk a world in which other great powers decisively shift the international order in ways highly unfavorable to the U.S. and its allies. Placing too much emphasis on capabilities to contain or disrupt an expansionist state power may discount potentially disruptive threats or human catastrophe resulting from disorder and insufficient governance which have demonstrated a troubling tendency to fester and emerge as surprise or strategic shock for U.S. national security.

Adversaries are evolving their own style of war that is explicitly focused on the combination of state and nonstate entities to conduct foreign policy and war. Viewing emerging Chinese and Russian styles of war as pacing threats, our own force development activities the Joint Force should explore how to develop comprehensive theater engagement concepts for phase zero operations that include hostile nonstate actors and augments and leveraging public/private partnerships to better shape the operating environment. Concept development in this area can allow the Joint Force to better support partners and encourage the capabilities to better resist the combined Russian and Chinese approaches to overturning regional balances and avoiding the neutralization of near states.

One important conclusion drawn from across the panel discussion was to encourage the Joint community to pay attention to the military intangibles that provide key advantages to the U.S. Partners, training, integration, jointness all provide significant advantages across both potential sets of environmental challenges. Along with this, the Joint Force should not lose sight of the global logistics, movement, and support capabilities that allow the U.S. to place combat power when and where it is needed. This discussion is frequently framed in terms of the "tooth to tail" ratio of combat forces to support forces – usually decrying tail and advocating tooth. In fact it is this tail that makes the U.S. a global superpower and should not be neglected.

Assuming the importance of these support capabilities places the massive growth of Chinese presence abroad – in particular the 'string of pearls' in the Indian ocean, but also a range of commercial concessions around the world – in a new light. Cast in this way, the goal of China to transition from a regional power to a global one becomes clear. This places a premium on perhaps the most decisive, intangible advantage of all – the U.S. global alliance network, which includes a broad array of great, medium and small powers and increasingly focused on tailored security cooperation with partners.

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There was significant disagreement at the conference about the extent to which we can understand where or when the next conflict or war will take place. The initial history panel, however, presented a compelling case that a range of scenarios and sustained strategic and operational planning is critical to effective preparation. The rainbow plans of the interwar period did in fact uncover many of the most significant challenges and test innovative solutions to the wars that would follow less than a decade ahead. A clear finding from the conference proceedings is that like the interwar period, the international environment and specific actors in it are raising the bar for the ability of the U.S. to bring decisive power to bear at global distances – as well as the way we globally integrate joint capabilities in a timely and effective manner.

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**Appendix A: Conference Agenda, Panelists and Keynote Speakers**

The Joint Staff J-7 designed, coordinated and moderated three of the panels: Understanding 21st Century Military Advantage; Global Response, Joint Entry, and U.S. Ground Forces; and Conducting Operations across Domains. These panels provided an opportunity to discuss and promote key joint concepts to include CCJO, JOAC, and JCEO to a wide audience of military and civilian leaders. Select briefings can be found at the conference agenda website here:

<http://www.strategicstudiesinstitute.army.mil/conf/agenda.cfm>

**25<sup>th</sup> Annual Army War College Strategy Conference**

*“Balancing the Joint Force for Future Security Challenges”*

**Day 1: Tuesday April 8, 2014**

**History Panel:** “The Road to Rainbow: Imagining Future Military Demands”

Panelists — Dr. Henry G. Gole, Author of "The Road to Rainbow: Army Planning for Global War, 1934-1940"; Dr. Conrad C. Crane, AHEC; Dr. Robert M. Citino, University of North Texas; and Mr. Raymond A. Millen, U.S. Army Peacekeeping and Stability Operations Institute (PKSOI)

**Joint Staff, J-7 Panel:** “Understanding 21st Century Military Advantage”

Panelists — Mr. Nate Freier, USAWC Strategic Studies Institute (SSI); Dr. Sam J. Tangredi, Strategic Insight, LLC; Dr. T.X. Hammes, National Defense University (NDU); and Mr. Mark Gunzinger, Center for Strategic and Budgetary Assessments

**Day 2: Wednesday April 9, 2014**

**Keynote Address:** “The Future of Military Force and Forces in Post-War National Security Policy”

Speaker — Robert D. Kaplan

**Panel I, in partnership with the National Intelligence Council:** “The Decision Making Environment: Defense and Military Challenges Through 2020”

Panelists — Mr. Daniel J. Flynn, National Intelligence Council; Dr. John R. Deni, USAWC SSI; Brigadier Ian Rigden, Development, Concepts, and Doctrine Centre (UK MoD); LTG Wallace Gregson, USMC, Ret.; and Dr. Richard Betts, Columbia University

**Luncheon Keynote Speech:** “Shaping the Joint Force for Future Demands”

Speaker: ADM Dennis Blair, USN, Ret.

**Panel II, in partnership with the Atlantic Council's Brent Scowcroft Center on International Security:** “Competition and Chaos: Future Military Demands in CENTCOM and PACOM”

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Panelists - Mr. Barry Pavel, Brent Scowcroft Center, Atlantic Council; Dr. Christopher J. Bolan, USAWC School of Strategic Landpower (SSL); Dr. Dafna Rand, Center for a New American Security; Dr. Paula G. Thornhill, RAND Corporation; and Dr. Ely Ratner, Center for a New American Security

**Panel III, in partnership with the Joint Staff J7:** “Global Response, Joint Entry, and U.S. Ground Forces”

Panel Chair: Brigadier General Jon T. Thomas, Joint Staff/J7 Deputy Director for Future Joint Force Development.

Panelists: Lieutenant General William C. Mayville, Joint Staff, Director for Operations (J3); Major General John W. Nicholson, Jr. Commanding General 82nd Airborne Division; Major General Frederick M. Padilla, Director of Operations and Plans, Policies and Operations, HQ MC; and Major General Wayne Schatz Jr. Director of Operations and Plans, U.S. Transportation Command

**Roundtable Discussion and Banquet, in partnership with the University of Pittsburgh's Matthew B. Ridgway Center for International Security Studies:** “Rest of the World Risk”

Panelists - Dr. Phil Williams, Matthew B. Ridgway Center, University of Pittsburgh; Dr. Steven Metz, USAWC SSI; Ms. Lesley Anne Warner, Center for Naval Analyses (CNA); Dr. Robert J. Bunker, AWC SSI; and Dr. Stephen J. Blank, American Foreign Policy Council.

**Day 3: Thursday April 10, 2014**

**Keynote Address:** “Seeing the Future and Organizing to Confront It”

Speaker - Richard N. Haass, President, Council on Foreign Relations

**Panel IV, in partnership with the International Security Program, Center for Strategic and International Studies:** “Global Agility: The Range of Military

Operations and Its Impact on Roles and Missions”

Panelists: Mr. Samuel J. Brannen, Center for Strategic and International Studies (CSIS); Mr. Nate Freier, USAWC SSI; Mr. Frank G. Hoffman, NDU; Henry J. Hendrix, Captain, USN (PhD), Force Structure/Strategic Analyst; LTG Terry A. Wolff, U.S Army, Ret.; and Lt. Gen. Christopher D. Miller, USAF, Ret.

**Joint Staff J-7 Luncheon Roundtable:** “Conducting Operations Across Domains”

Panel Chair: Col Matt Lopez, USMC Ret., Concept Developer, J-7

Panelists: MG Bill Hix, Deputy Director, Army Capabilities Integration Center (ARCIC); Maj. Gen. James J. Jones, Air Staff, A3X; RDML Brian Luther, OpNAV N-31; and Maj. Gen. George J. Franz III, Commander, Cyber National Mission Force

**Panel V, in partnership with the Center for Naval Analyses:** “Globally Integrated Operations and the New Road to Rainbow”

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Panelists: Dr. Eric V. Thompson, CNA; Dr. Richard A. Lacquement, USAWC SSL; Dr. Nora Bensahel, Center for a New American Security; General James Cartwright, USMC, Ret., CSIS.; and Ms. Anne A. Witkowsky, Office of the Secretary of Defense

**Closing Address:** “Confronting the World as It Is.”

Lieutenant General Sir Graeme Lamb KBE CMG DSO British Army, Ret., Former Deputy Commander, Multi-National Force Iraq and Director, Special Forces (UK)

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### **Appendix B: Joint Staff J7 Conference Partnership Objectives**

Objective 1: Develop an understanding of the emerging operational environment and define a pressing set of potential future joint force challenges.

- 1.A: Present a set of long term strategic trends and resulting military implications from a variety of perspectives.
- 1.B: Understand emerging joint force challenges in PACOM and CENTCOM.
- 1.C: Understand emerging joint force challenges in other regional combatant commands.

Objective 2: Develop recommendations on the key priorities for joint force development over the next decade that; 1) support Globally Integrated Operations, and; 2) are feasible within the context of the SCMR, QDR, and other emerging strategic constraints or guidance.

- 2.A: Understand how joint force roles and missions may evolve over the next decade in light of ongoing military challenges and longer-term strategic trends in the operational environment.
- 2.B: Further a joint understanding of the relationship between JCEO and Strategic Landpower.
- 2.C: Develop a joint understanding of operations in air, sea, space, and cyber domains and synergies among these operations required to develop a more effective JF2020.
- 2.D: Explore joint operational approaches and joint capabilities required to support globally integrated operations in light of the future operating environment.

Objective 3: Contribute to the prioritization of military challenges with potential solutions for joint concept prospectus development

- 3.A: Develop reports that inform the JCWG about the range of potential future joint force challenges and solutions.
- 3.B: Engage JCWG in structured dialog about what joint force challenges and solutions (see 3.A) mean for future joint force development.
- 3.C: Assess the level of risk (and opportunity) that future joint force challenges present to the future joint force.
- 3.D: Develop materials that assist the JCWG in developing recommendations priority military challenges and joint concept prospectuses.

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