

Soldiers conduct static line airdrop during Joint Operational Access Exercise 13-02, at Sicily drop zone, Fort Bragg, North Carolina, to train with paratroopers from U.S. Army's 82nd Airborne Division on projecting combat power in denied environments (DOD/Jason Robertson)



Joint Concept for Access and Maneuver in the Global Commons

A New Joint Operational Concept

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In two separate keynote addresses at the annual conventions of the professional associations of the Army and Air Force, General Joseph Dunford, Jr., described how he and the other Service chiefs went through a “process of discovery” to develop the new National Military Strategy.¹ He further explained

that part of that process included their collective thinking on our national centers of gravity.

In particular, General Dunford conveyed that at the operational level, it is our ability to globally project power that is a key military center of gravity. On that point, he went on to state, “In my judgment, [potential competitors’] operational patterns, their capability development, and their behavior are designed to undermine the United States, our ability to project power, and the credibility of our alliances.” He continued, “We’ve also seen them modernizing their existing systems and also some capabilities that are particularly concerning to the United States . . . their long-range conventional strike, modernized nuclear capabilities, and their focus on developing a wide range of robust cyber, space, electronic warfare, and undersea capabilities.”

For a nation that should think and act globally, the United States must be capable and ready to address emerging challenges in a way that has been an advantage for American and allied forces for decades: the ability to project military force into an operational area with sufficient freedom of action to accomplish a designated mission.

Signed and Approved

On October 19, 2016, Vice Chairman of the Joint Chiefs of Staff General Paul Selva, USAF, signed the Joint Concept for Access and Maneuver in the Global Commons (JAM-GC), officially signaling its approval as a joint operational concept to support the Capstone Concept for Joint Operations 2030. Most importantly, JAM-GC will inform joint force operations so that the United States can maintain access to and maneuver through the global commons, project power, and defeat an adversary attempting to deny freedom of action to U.S. and allied forces.

JAM-GC is the evolved replacement of its predecessor, the much-analyzed Air-Sea Battle concept, and continues the natural and deliberate evolution of core U.S. abilities to project power. The concept focuses on gaining and maintaining operational access to preserve freedom of

action in the global commons in an era of increasingly sophisticated and rapidly proliferating military threats.² The concept’s operational-level thought will also inform capability and force development activities to aid in the shaping of the joint force necessary to address those military threats.

The United States will continue to develop and enhance its regional and global power projection capabilities in order to provide a full range of options to succeed in defense of our global interests and those shared by our allies and partners. Actions taken in concert with the transition and application of this concept will inform and refine those capability development efforts.

Rise of Antiaccess/ Area-Denial Threats

The United States is a global power with global interests. This foundational principle continues to place demands on the military’s ability to project and sustain power globally. Since the end of World War II, U.S. forces have generally enjoyed unrestricted and unchallenged access to the global commons, which in turn has facilitated the ability to project power. This unfettered access also contributed to a shift in priorities away from thinking, planning, and operations to ensure continued operational access. Additionally, the Nation’s focus on two wars over the past two decades that required a different kind of warfighting and different capabilities and capacities than those required to counter a near-peer competitor further drew collective attention away from the issues of continued operational access.

Today, efforts by determined potential adversaries to obtain, field, and proliferate formidable advanced technologies and military capabilities to counter U.S. and allied power projection are undermining these traditional U.S. military advantages.³ These capabilities not only include traditional weapons such as aircraft, submarines, mines, and missiles, but also encompass emerging capabilities in all domains, including space and cyberspace.⁴ The range, lethality, and sophistication of these new capabilities

constitute an unprecedented array of antiaccess/area-denial (A2/AD) capabilities that threaten the U.S. and allied model of power projection and maneuver. These challenges seem even more daunting given recent fiscal constraints that have significantly impacted both force structure and military readiness.

Unless countered, these challenges will reduce the credibility of U.S. security guarantees and the confidence of legitimate users that they will continue to enjoy unconstrained access to the global commons. These formidable capabilities can also cause U.S. and allied forces to operate with higher levels of risk and at greater distances from areas of interest.

Initial Response: Air-Sea Battle

Given these operational realities, the Department of Defense recognized the need to explore and develop ideas and capabilities to enhance U.S. power projection capabilities and strategies, as well as to ensure freedom of action. In July 2009, then-Secretary of Defense Robert Gates directed the Services to address this military problem set, and a new operational concept called Air-Sea Battle (ASB) was created.

A multi-Service office was established to not only write the new concept, but also construct, administer, and oversee viable transition and application actions throughout the military Services. ASB would be incorporated into more than two dozen wargames, experiments, studies, and exercises at the Service, combatant command, joint, and allied levels. ASB tenets were codified in three implementation plans that produced force-development recommendations across key warfare areas to be tested, proved, and finally adopted by the “fleets and forces.” All these exploratory activities revealed important insights. Many of the findings from these activities validated ASB’s original central idea of the need for a more fully networked and integrated cross-domain force.

Developing a Whole New Concept

In fall 2014, the Service chiefs met and agreed that ASB should be revised into

an authoritative joint concept in support of, and subordinate to, the Joint Operational Access Concept (JOAC). Their conclusion was that evolving ASB from its original multi-Service arrangement into a fully integrated joint concept, under oversight by the Joint Force Development Process, would be the logical continuation and progressive enhancement of these organized efforts to address the current and future contested environments.

With improved understanding of operational requirements to address A2/AD challenges in the global commons, the Services and Joint Staff achieved consensus and agreed on the name *Joint Concept for Access and Maneuver in the Global Commons*.

In early 2015, in response to the Service chiefs' decision, the Air-Sea Battle Office began work to evolve Air-Sea Battle into JAM-GC. To further underwrite the new initiative, the Director of the Joint Staff issued a memorandum in January 2015 officially directing the name change, and he placed concept development efforts under monitoring from the Joint Staff J7 Directorate for Joint Force Development.

Development and writing of the new concept was done under the auspices of the existing formal joint concept development process.⁵ Adherence to this systematic process ensured JAM-GC received the necessary Joint Staff integration and oversight afforded other joint concepts.

Building on the ASB Foundation

Development of JAM-GC is about improving joint warfighting effectiveness in a contested environment while employing the valuable research and lessons learned from implementing the Air-Sea Battle concept. JAM-GC keeps and enhances ASB's proven best ideas, with its lessons identified and incorporated to result in a joint concept that is more applicable and adaptive to the quickly changing and increasingly difficult operational environment. It is now a joint concept built on the ASB "chassis." While JAM-GC now exists as a joint concept, responsibility for its

maturity, transition, and application remains with the Services, yet with the enhanced clout of formal Joint Staff J7 oversight.

Based on several years of comprehensive wargaming and experimentation, JAM-GC refines and adjusts ASB's ideas, intending to address the contested environment at acceptable levels of risk. Whereas the ASB concept was designed to counter emerging A2/AD challenges and hinged on a "disrupt, destroy, defeat" approach to specific adversary A2/AD capabilities, JAM-GC is focused on defeating an adversary's plan and intent, rather than just concentrating on dismantling adversary A2/AD capabilities.

JAM-GC concentrates on the operational level of war. It is not itself a strategy; rather, it is an operational approach to enable strategy. Likewise, effective tactics are necessary, but JAM-GC is not meant to provide tactical solutions. Similarly, the concept does not advocate for specific emerging capabilities. If such capabilities develop and are fielded, they will make JAM-GC's approach more effective.

There is recognition of the importance of technology to overcome adversary capabilities as well as defend friendly vulnerabilities, but the concept also recognizes the limits of technology and the need to integrate low-tech options where and when appropriate for the joint force. Importantly, JAM-GC lays out an approach for operations in contested environments that does not rely on overcoming a potential adversary's A2/AD military capabilities, whereas ASB's approach focused on changing the environment by systematically defeating A2/AD, so the joint force could operate as it preferred. This subtle but important change represents an acknowledgment that A2/AD capabilities evolved more quickly than anticipated and could only be dismantled at high levels of risk.

JAM-GC is intended to aid commanders, planners, and capability developers to:

- employ existing joint force capabilities in innovative ways to ensure access and freedom of maneuver

- provide the necessary force development activities, particularly education and integrated training, needed to succeed in future contested environments
- recognize, understand, and advocate for new capabilities and approaches required to defeat evolving threats.

Addressing the possibility of having to confront a near-peer, modern competitor, JAM-GC posits operations against determined, capable, and elusive opponents who avoid U.S. strengths, emulate U.S. capabilities, attack vulnerabilities, and expand operations beyond physical battlegrounds.

The new name also reflects several important ideas for joint force success in contested environments. The most obvious change reflects that operating in the face of comprehensive A2/AD threats requires the integration of capabilities from all five warfighting domains (land, sea, air, space, and cyberspace), not just from the air and sea domains of its correspondingly titled predecessor.

The concept also includes the capabilities—and capacities—of allies and partners when and where appropriate, as access to the global commons is a collective interest of the international community. JAM-GC will continue to build on the U.S. commitment to our allies and partners around the world who are essential to successfully overcoming threats to access in the global commons. Improved interoperability with allies and partners is a fundamental tenet of the new concept.

Just as with the original Air-Sea Battle concept, JAM-GC is not predicated on any one potential adversary, theater of operations, or geopolitical scenario. Rather, the concept is driven by the global proliferation and increasing sophistication of A2/AD threat capabilities with global applicability. Its focus is on the challenge of contested access and maneuver in the global commons from 2016 to 2025 and beyond.

Furthermore, "access and maneuver" reflect the overall importance of operational access and freedom of action, while "global commons" delineates those

areas of sea, air, space, and cyberspace that belong to no one state. JAM-GC acknowledges that “access” to the global commons is vital to U.S. national interests, both as an end in itself and as a means to projecting military force into hostile territory.

Solution to an Operational Problem

JAM-GC puts forth an evolutionary approach to joint force operations that centers on enhanced all-domain integration across Service and component lines in order to develop a force that can continue to ensure freedom of action in the global commons despite increasingly sophisticated A2/AD threats. The concept’s operational problem statement is summarized thus:

The joint force must be able to maintain access to and maneuver through portions of the global commons, project power, and defeat an adversary attempting to deny freedom of action via the employment of A2/AD capabilities.

The tactics and military strategies employed in the global commons must adapt to keep pace with potential adversaries’ technological advances, including improvements in positioning and timing, guidance, propulsion, computing power, sensing, accuracy, and signature. In an era of a “leaner” force structure and increased proliferation of advanced threat and weapons technologies, countering an adversary with the potential for numerical superiority and near technical parity is at the heart of JAM-GC’s operational problem.

Building Blocks

To meet the challenges of the operational problem, the future joint force must be distributable, resilient, and tailorable, as well as employed in sufficient scale and for ample duration. The concept further defines and explains this particular set of required characteristics for the joint force and why they are key to the success of joint operations in a future contested environment:



United Launch Alliance Delta IV-Heavy rocket carrying National Reconnaissance Office payload launches from Space Launch Complex-6, August 28, 2013, at Vandenberg Air Force Base (U.S. Air Force/Yvonne Morales)

- Distributable: “the ability to disperse, reposition, and use a variety of bases and operating locations, while retaining the ability to maneuver and concentrate combat power”
- Resilient: “the ability to recover rapidly from adversity and setbacks, which usually come in the form of combat losses”
- Tailorable: Forces available to the joint force commander that “can be readily commanded, controlled, and employed in any necessary temporary or permanent structure to accomplish assigned missions”
- Sufficient scale: Examples of increasing capacity include increasing range, carriage, and loiter times of existing platforms; expanding the number of partners conducting operations together; and increased use and integration of commercial systems.
- Ample duration: U.S. and allied forces must have necessary “staying power.” A key feature must be a logistics system that provides redundancy and timely access to resources to withstand interruption, corruption, and attrition.



E/A-18 Growler assigned to "Gauntlets" of Electronic Attack Squadron 136 lands as USS *Ronald Reagan* and USS *Independence* conduct maneuvers during Rim of the Pacific 2014 (U.S. Navy/Conor Minto)

While JAM-GC emphasizes these key elements of joint force integration, other elements of national power—that is, a whole-of-government and coalition approach—including diplomatic, information, military, economic, financial, intelligence, and law enforcement should also be well integrated with joint force operations.

Relationship to Other Concepts

The January 2012 Defense Strategic Guidance states, “The United States will continue to lead global efforts with capable allies and partners to assure access to and use of the global commons . . . by maintaining relevant and interoperable military capabilities.” One of 10 primary missions it identifies for U.S. forces is to “Project Power Despite Anti-Access/Area Denial

Challenges.” Several joint operational concepts align under this strategic guidance to address the access challenge of projecting U.S. military power from the homeland into contested-entry operations at overseas locations in all five warfighting domains.

The Capstone Concept for Joint Operations sets the tone and the stage for the family of joint operational concepts. This concept describes potential operational concepts through which the joint force of 2030 will defend the Nation against a wide range of security challenges. JAM-GC builds on the established central JOAC idea of cross-domain synergy. But JAM-GC operationally advances JOAC’s ideas with a more specific and detailed conceptual design. JAM-GC further builds on force development and management activities

outlined in the Joint Concept for Rapid Aggregation and thus complements and seeks to set conditions for the operational ideas of follow-on operations in the Joint Concept for Entry Operations. Finally, realizing the value and necessity of being able to sustain operations, JAM-GC complements and relies on the “globally integrated logistics” envisioned in the Joint Concept for Logistics.

Commitment to Implement

Substantial work to develop methods and capabilities to address the A2/AD military problem set continues. Through the further development and transition and application of the JAM-GC concept, the Services—working with allies and partners—remain committed to forging a closer and more resilient, networked, and

integrated force capable of establishing and maintaining freedom of action and operational access whenever and wherever it is needed. These areas will require increased attention and focus for operating and prevailing in the emerging sophisticated, challenging—and lethal—contested environments.

JAM-GC will address a full spectrum of integrated capabilities for A2/AD threats to include both nonmatériel and matériel solutions. JAM-GC seeks to identify capability gaps, provide integrated joint capabilities, and develop doctrine, organization, training, matériel, leadership and education, personnel, and facilities solutions (with an emphasis on jointness.) The concept will not replace the Services' unique programming, requirements, and acquisition processes, nor will it direct any specific funding actions. It will be available to inform the Services' budgeting processes and provide a medium through which all four Services can ideally collaborate to improve budgeting efficiencies.

While JAM-GC addresses current and anticipated A2/AD threats for the next decade and beyond, it does not specifically endorse promising yet undeveloped future capabilities. Reliance on existing systems and capabilities is paramount, but if such advanced capabilities emerge and can be fielded, they will make JAM-GC's approach more effective.

Will JAM-GC Be Realized?

The desired realization of the JAM-GC concept will be a joint force—ready and trained—with interoperable land, naval, air, space, and cyber forces having the necessary capabilities to overcome and defeat the increasingly sophisticated threats that potential competitors are now fielding. Such a realization will in turn sustain the ability of the joint force to project military power wherever and whenever needed to help counter aggression or hostile actions in the global commons against U.S. and allied interests.

The challenges are real; intensifying and proliferating A2/AD threats will require sustained and focused institutional examination and attention. Additionally,

any of the ideas, initiatives, and efforts undertaken under JAM-GC will require realistic testing, evaluation, and validation before transition and application in the field. It will require unprecedented joint cooperation and learning.

Early returns on JAM-GC are promising. Actions taken in concert with the transition and application of this concept are already informing and guiding related nascent capability and force development efforts by the Services. The concept supplies a unifying framework for collaboration among military departments and Services to address the increasingly sophisticated threats. Sustained and integrated efforts by the Services to develop the capabilities envisioned with this concept's ideas can impose costs on potential competitors, deter conflict, and enable continued U.S. and allied access to and maneuver in the global commons while ensuring operational freedom of action. The ability of the joint force to globally project U.S. military power in support of national objectives will remain—as General Dunford affirmed—a “source of strength.” JFQ

Notes

¹ General Joseph Dunford, Jr., USMC, addresses at the annual Air Force Association convention on September 21, 2016, and the Association of the United States Army on October 5, 2016.

² The *Joint Operational Access Concept* (Washington, DC: Department of Defense, January 17, 2012), 1, defines the *global commons* as “areas of air, sea, space, and cyberspace that belong to no one state.” The land domain is *not* part of the global commons, since all inhabitable land is possessed by some nation or entity.

³ Weapons and methods used to counter U.S. power projection, as well as challenge access and maneuver, are collectively referred to as antiaccess/area-denial capabilities.

⁴ The military warfighting domains are now generally considered to be land, air, maritime (to include subsurface), space, and cyberspace.

⁵ The formal process used for the development of all joint concepts is found in the Chairman of the Joint Chiefs of Staff Instruction 3010.02E, *Chairman's Guidance for Development and Implementation of Joint Concepts* (Washington, DC: The Joint Staff, August 17, 2016).

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Strategic Forum 297
*Will Technological Convergence
Reverse Globalization?*
By T.X. Hammes



Numerous trends are slowing, and may even be reversing, globalization over the next decade or two.

Manufacturing and services are trending toward local production. Technological and social developments will accelerate these trends. Voters in the United States and Europe are increasingly angry over international trade. Authoritarian states, particularly China and Russia, are balkanizing the Internet to restrict access to information. Technological advances are raising the cost of overseas intervention while deglobalization is reducing its incentives. This paper argues that deglobalization would have momentous security implications. Accordingly, deglobalization must be monitored closely and if the trend continues, U.S. leaders will need to consider restructuring organizations, alliances, and national security strategy.



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