The Army and the Need for an Amphibious Capability

A Monograph

by

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| Though national strategic guidance does not specify the need for the United States Army to maintain an amphibious capability, joint doctrine does task the Army with providing landing forces as part of larger, joint amphibious operations. This doctrine, when coupled with the Joint Staff's <i>Joint Operational Access Concept</i> , that outlines the means by which U.S. forces project power to defeat aggression in the face of increasingly complex anti-access and area-denial weapons and technologies, | | | | | |
| Army is in need of an amphibious capability. This study assesses this need in light of anticipated amphibious requirements, the Army's historical role in amphibious operations, and an analysis of Army doctrine, organization, training, materiel, leadership/education, personnel, and facilities (DOTMLPF) to identify capability gaps that the Army would need to address in order to fulfill its role in Joint amphibious operations. | | | | | |
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Abstract

The Army and the Need for an Amphibious Capability, by MAJ Joseph E. Malone, 53 pages.

Though national strategic guidance does not specify the need for the United States Army to maintain an amphibious capability, joint doctrine does task the Army with providing landing forces as part of larger, joint amphibious operations. This doctrine, when coupled with the Joint Staff's *Joint Operational Access Concept*, that outlines the means by which U.S. forces project power to defeat aggression in the face of increasingly complex anti-access and area-denial weapons and technologies, the so-called "pivot" to the Pacific, and shortfalls in existing joint amphibious capacity, suggests that the Army is in need of an amphibious capability. This study assesses this need in light of anticipated amphibious requirements, the Army's historical role in amphibious operations, and an analysis of Army doctrine, organization, training, materiel, leadership/education, personnel, and facilities (DOTMLPF) to identify capability gaps that the Army would need to address in order to fulfill its role in Joint amphibious operations.

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Acronyms

| A2/AD | Anti-Access/Area Denial |
|-----------|--|
| AAV | Amphibious Assault Vehicle |
| ACV | Amphibious Combat Vehicle |
| ADP | Army Doctrine Publication |
| ADRP | Army Doctrine Reference Publication |
| ARCIC | Army Capabilities Integration Center |
| ASB | Air-Sea Battle |
| BCT | Brigade Combat Team |
| ССЈО | Capstone Concept for Joint Operations |
| CCMD | Component Command |
| DCR | DOTmLPF-P Change Recommendations |
| DoD | Department of Defense |
| DOTMLPF | Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities |
| DOTmLPF-P | Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, Facilities, and Policy |
| DSG | Defense Strategic Guidance |
| FM | Field Manual |
| FoS | Family of Systems |
| JAM-GC | Joint Concept for Access and Maneuver in the Global Commons |
| JCEO | Joint Concept for Entry Operations |
| JCIDS | Joint Capabilities Integration Development System |
| JOAC | Joint Operational Access Concept |
| JP | Joint Publication |
| LCM | Landing Craft Mechanized |

- LCU Landing Craft Utility
- LSU Landing Ship Utility
- LSV Landing Ship Vessel
- LVT Landing Vehicle Tracked
- MAGTF Marine Air-Ground Task Force
- MEF Marine Expeditionary Force
- MEU Marine Expeditionary Unit
- MOS Military Occupational Specialty
- NSS National Security Strategy
- QDR Quadrennial Defense Review
- TACON Tactical Control
- TPP Trans-Pacific Partnership
- TRADOC Training and Doctrine Command

Introduction

Large-scale amphibious assault provides the nation with the capability of forcible entry from the sea; it includes actions to seize key terrain and build and sustain a beachhead or military lodgment in the face of armed opposition.

—Joint Publication, JP 3-02: Amphibious Operations

Within the Army mission "to seize, occupy and defend land areas" is an inherent requirement for strategic and tactical mobility. As a basic means of deployment of Army Forces in an offensive posture, the amphibious operation is vital to the accomplishment of the Army mission.

—Department of the Army Field Manual, FM 31-12: Army Forces in Amphibious Operations

Throughout the history of the United States, the Army has repeated a cycle of attaining proficiency in a particular type of warfare and then ignoring those capabilities in favor of general forms of warfare, only to have to relearn these special skills during a future conflict—sometimes at a cost of thousands of American casualties. The US Army learned and conducted trench warfare during the American Civil War, but then neglected it from 1865-1917, paying the cost in human life on the battlefields of World War I while trying to reacquire a skill it once possessed. Counterinsurgency operations honed in Vietnam but ignored in the 1980s and 1990s, later rose to prominence in the villages of Afghanistan and the streets of Iraq. Before World War II the Army developed a robust amphibious capability consisting of a two-star Amphibious Training Center, large quantities of equipment capable of supporting amphibious operations, and units with amphibious operational experience. The Army's invaluable amphibious capability has atrophied since World War II to the point that almost zero capability exists today within the Army. This monograph proposes that an amphibious capability gap currently exists within the Army as part of a larger Joint Force and when the Joint Force calls upon the Army to conduct amphibious operations, it will be unable to do so.

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Any need for the Army to possess an amphibious capability would, of course, only exist if such a requirement was anticipated within the future operational environment. The Capstone *Concept for Joint Operations: Joint Force 2020* states that the future environment will include characteristics such as the "proliferation of weapons of mass destruction, the rise of competitor states . . . regional instability . . . and competition for resources."¹ In scenarios where these threats have presented themselves in the recent past, the US has had time to "build up combat power in the area, perform detailed rehearsals and integration activities, and then conduct operations when and where desired."² Anti-access and area denial (A2/AD), the primary emerging threat within the future environment, hinders the US military's ability from operating the way it has in the past. Anti-access and area denial capabilities "challenge and threaten the ability of the U.S. and allied forces to both get to the fight and to fight effectively once there."³ The capabilities of the A2/AD threat consist of the proliferation of a mix of new and modern weaponry designed to create standoff. A potential adversary's A2/AD threat could incorporate a mix of new generations of cruise, ballistic, air-to-air and surface-to-air missiles, modern conventional platforms, sea mines equipped with mobility, discrimination, and autonomy, or cyberspace attacks all aimed at preventing the United States from entering a theater of operations.⁴ The Joint Force's counter to the A2/AD threat is the Joint Concept for Access and Maneuver in the Global Commons (JAM-GC), formally known as Air-Sea Battle (ASB) Concept.⁵ Air-Sea Battle is a "concept that

⁴ Ibid.

¹ US Department of Defense, Joint Publication: *Capstone Concept for Joint Operations: Joint Forces 2020* (Washington DC: Government Printing Office, 2012), 2.

² US Department of Defense, Air-Sea Battle Office, *Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges* (Washington DC: Government Printing Office, 2013), 2.

³ Ibid.

describes what is necessary for the joint force to sufficiently shape A2/AD environment to enable concurrent or follow-on power projection operations."⁶ In late 2012, all four of the Services agreed to "implement the ASB Concept through the development of a joint force capable of shaping and exploiting A2/AD environments in order to maintain freedom of action in the global commons, and secure operational access to enable concurrent or follow-on joint forces."⁷ By May, 2013 Air-Sea Battle became a supporting concept to the Joint Operational Access Concept and the Joint Concept for Entry operations, which describe "how U.S. joint forces will overcome opposed access challenges," and "the joint force's ability to conduct concurrent or follow-on entry operations."⁸ The ability to overcome opposed access challenges and conduct follow-on entry operations leads directly into the Army's need for an amphibious capability.

To determine whether there is an amphibious capability gap within the Army, several questions should first be considered. First, does the Department of Defense (DoD) expect the Army to possess amphibious capabilities? Analysis of strategic documents suggests that though, the documents do not specifically state the Army needs an amphibious capability, it does not prevent the Army from possessing that capability either. In contrast, examination of Joint doctrine specifically highlights the Army's role in amphibious warfare.

⁵ As of January 8, 2015 the Joint Staff redesignated the Air-Sea Battle Concept, created in 2009, as the Joint Concept for Access and Maneuver in the Global Commons. The name change "presents a better opportunity to rename the concept to better represent the full scope" that now incorporates land forces in the wider concept. Because the JAM-CG's creation is a recent development and the only unclassified published change to the Air-Sea Battle Concept is the addition of a larger land focus, the references to ASB are still pertinent and relevant to this study; Sam LaGrone, "Pentagon Drops Air Sea Battle Name, Concept Lives On," *news.usni.org*, January 20, 2015, accessed January 30, 2015, http://news.usni.org/2015/01/20/pentagon-drops-air-sea-battle-name-concept-lives.

⁶ Air-Sea Battle, 4.

⁷ Ibid.

⁸ Ibid., 8.

Once a need for an Army amphibious capability has been established, the next question that will be answered is if DoD expects the Army to possess an amphibious capability, is there truly a need for it to do so? This section of the study analyzes reasons for the United Stated to require the Army to possess an amphibious capability. To support the assertion that the Army needs some amphibious capability, analysis provided by the examination of the nation's strategic "rebalance towards the Asia-Pacific region," consideration of potential future security threats within the Asian-Pacific region, and a discussion of the challenges the US Marine Corps currently faces within the Asian-Pacific region will be presented and discussed.⁹

The third question this monograph will answer is if there is an expectation and a need for the Army to be able to conduct amphibious warfare, what gaps currently exists within the Army, in its current state, that prevent it from conducting amphibious operations? Analysis of the Army's amphibious history reveals that it once had an extensive amphibious capacity and executed those capabilities quite well, especially during World War II. Since that time, the exigencies of peace- and wartime missions caused the Army to shift its priorities to sustained land combat and as a result, the Army let its amphibious capabilities atrophy to the point of nonexistence. Analysis of the current operational environment and the current state of the US military determines that while the Marine Corps will most likely remain the nation's amphibious warfare experts, the Army must resurrect at least a portion its past amphibious warfare capability. An examination of strategic guidance and joint doctrine, an analysis of historical Army ship-to-shore combat operations, and a study of the future operational environment within the Asian-Pacific region all indicate the US Army should not only possess amphibious capabilities, but be prepared to conduct amphibious warfare as part of a larger Joint Force.

⁹ US Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington DC: Government Printing Office, 2012), 2.

The Joint Capabilities Integration Development System (JCIDS) process and the Army's Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) framework will serve as analysis criteria throughout the entirety of the study to determine if indeed there are amphibious capabilities gaps within the Army.¹⁰ The JCIDS process "exists to support Joint Requirements Oversight Council and Chairman of the Joint Chiefs of Staff responsibilities in identifying, assessing, validating, and prioritizing joint military capabilities requirements."¹¹ DOTmLPF-P is a "problem-solving construct for assessing current capabilities and managing change" across the Joint Force.¹² The Army's DOTMLPF framework develops "solutions to resolve or mitigate the gaps identified as having unacceptable risk."¹³According to the Army's Capabilities Integration Center (ARCIC), the Army transforms through "a continuous cycle of adaptive innovation, experimentation, and experience." The continuous cycle of innovation and experimentation across all DOTMLPF elements allow the Army to identify gaps and to improve its dominant land power capabilities that contribute to the

¹⁰ The Army uses a capital "M" when using the acronym DOTMLPF since it is potentially involved in advocating for new materiel acquisitions. For the Joint Force, "the letter "m" in the acronym is usually lower case since Joint DCRs [DOTmLPF-P Change Recommendations] do not advocate new materiel development, but rather advocate increased quantities of existing materiel capability solutions or use in alternate applications." The Army acronym (DOTMLPF) will be the primary framework used throughout this study. When an element from the Joint DOTmLPF-P framework is applicable, such as "Policy," it will be incorporated; US Department of Defense, Joint Publication, *Joint Capabilities Integration and Development System Manual* (Washington DC: Government Printing Office, January, 2012), A-5; Department of the Army, TRADOC Regulation 71-20: *Concept Development, Capabilities Determination, and Capabilities Integration* (Washington DC: Government Printing Office, 2013), 10.

¹¹ US Department of Defense, *Chairman of the Joint Chiefs of Staff Instruction:* 3170.01H (Washington DC: Government Printing Office, 2012), 1.

¹² Department of the Army, "What is DOTMLPF?" *Army Capabilities Integration Center*, last modified November 16, 2014, accessed November 18, 2014, http://www.arcic.army.mil/AboutARCIC/dotmlpf.aspx.

¹³ TRADOC Regulation 71-20, 10.

larger Joint Force.¹⁴ The Army's DOTMLPF framework enables both the Army and the larger Joint Force to identify capability gaps and requirements across the full spectrum of the Army Force.

The Army's Training and Doctrine Command (TRADOC) is the organization responsible for the identification of capability gaps and is the Army's "DOTMLPF capability developer."¹⁵ TRADOC designs and develops the Army's warfighting requirements, develop concepts, and ultimately establishes the Army's core functions.¹⁶ The concept development process is where ARCIC illustrates how future Army forces may operate, describes the capabilities required to carry out potential missions within the future operational environment, and "how a commander, using military art and science, might employ these capabilities to achieve desired effects and objectives."¹⁷ ARCIC, once it identifies the Army's future concepts and requirements through the use of its own DOTMLPF process, ensures it integrates the results into the JCIDS DOTmLPF-P framework for processing through the Joint level.

Amphibious Operations Defined

Joint Publication 3-02 (JP 3-02): *Amphibious Operations* defines amphibious operations simply as "a military operation launched from the sea by an amphibious force to conduct landing force operations within the littorals."¹⁸ JP 3-02 then states that amphibious operations are

¹⁶ Ibid.

¹⁷ Ibid.

¹⁴ "What is DOTMLPF?"

¹⁵ TRADOC Regulation 71-20, 9.

inherently joint operations requiring cooperation from all the Services because no Service alone possesses "the unique ability to operate across air, land, and sea."¹⁹ A military operation launched from the sea is an extremely broad operation that includes multiple elements or components under the umbrella of the simple term amphibious operations. The naval task force, the preposition equipment force, the amphibious advance force consisting of Air Force aircraft and Special Forces elements, the landing or assault force, and the logistics elements are all components of an overall larger amphibious operation as defined in JP 3-02. The Army's involvement in each different component of an amphibious operation is, in its own right, deserving of study or analysis. This study, however, will limit focus to the landing force element of a larger amphibious force, which JP 3-02 describes as a "Marine Corps or Army task organization formed to conduct amphibious operations."²⁰ Even more specifically, the study will focus on the assault echelon element of the landing force, which JP 1-02 defines as "the element of a force comprised of tailored units and aircraft assigned to conduct the initial assault on the operational area."²¹ Shipto-shore logistics, sea basing, amphibious fire support, the naval task force, etc., though are all vital components of an amphibious operations, will not specifically be addressed within the pages of this monograph.

²⁰ Ibid.

¹⁸ Littorals include "those land areas (and their adjacent sea and associated air space) that are predominately susceptible to engagement and influence from the sea;" US Department of Defense, Joint Publication 3-02: *Amphibious Operations* (Washington DC: Government Printing Office, 2014), xi, I-1.

¹⁹ Ibid., I-1.

²¹ US Department of Defense, Joint Publication 1-02: *Department of Defense Dictionary of Military and Associated Terms* (Washington DC: Government Printing Office, 2014), 17.

National Expectations

Strategic Guidance

The JCIDS manual states that before a Sponsor, i.e. the Army, takes any action in identifying capability gaps within a Service, the Service is required to review "the Sponsor's organizational functions, roles, missions, and operations, in the context of a framework of strategic guidance documents, and if applicable, overarching plans."²² According to strategic documents such as the National Security Strategy (NSS), the Defense Strategic Guidance (DSG), and the Quadrennial Defense Review (QDR), the Army is not specifically assigned the mission of conducting amphibious operations, but the documents do not forbid it from conducting amphibious operations either. According to the National Security Strategy, the four enduring national interests for the United States are security, prosperity, values, and international order.²³ Because each of these interests is interrelated to a point where they are practically inseparable, DoD plays a large role in pursuing each of them. However, security and international order are the two interests in which the DoD, and ultimately the Army, plays the biggest role. To secure the United States, its citizens, and US allies and partners, as well as to promote an international order through encouraging peace, security, and opportunity, the United States must retain the capability to "project power globally" and "deter and defeat threats."²⁴ The ability to project power and to deter and defeat aggression are two common threads associated with amphibious warfare that

²² JCIDS Manual, A-1.

²³ White House, *National Security Strategy*, report (Washington DC: U.S. Government Printing Office, 2015), 2.

²⁴ Ibid., 7, 8.

manifest themselves in each document from the strategic documents, down through Joint doctrine, and ultimately work their way into the Army's Capstone Concept.

One level below the overarching security strategy document is the DoD's *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*, referred to as the Defense Strategic Guidance (DSG).²⁵ The DSG defines the Department of Defense's mission of deter and defeat aggression as "credible deterrence results from both the capabilities to deny an aggressor the prospect of achieving his objectives and form the complementary capability to impose unacceptable cost the aggressor."²⁶ The document then describes the mission of power projection as maintaining the "ability to project power in areas that our [the US military] access and freedom to operate are challenged."²⁷ The document continues and extrapolates on the mission of power projection from just being able to deploy American forces all around the globe, to projecting the nation's military force "despite anti-access/area denial (A2/AD) challenges." An A2/AD environment is an environment where adversaries incorporate strategies aimed "to prevent US forces from entry into a theater of operations [anti-access], then . . . aim to prevent their freedom of action in the more narrow confines of the area under an enemy's direct control [area-denial]."²⁸ According to the Defense Strategic Guidance, to successfully execute power projection in an A2/AD environment and seize at least one base of operations, the Joint Force will need to

²⁷ Ibid.

²⁵ The official title for the Defense Strategic Guidance is *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*. However, documents such as the Capstone Concept for Joint Operations refer to the document as the Defense Strategic Guidance. This study takes the same approach and uses the acronym DSG in reference to the *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*; Capstone Concept 2020, 1.

²⁶ Sustaining U.S. Global Leadership, 4.

²⁸ Andrew Krepinevich, Barry Watts, "Meeting the Anti-Access and Area-Denial Challenge," Center for Strategic and Budgetary Assessments (Washington DC: Government Printing Office, 2003), ii.

implement the Joint Operational Access Concept, which incorporates the concept of Air-Sea Battle. The Joint Access Concept, in conjunction with the Joint Concept for Entry Operations, defines "how Joint Forces will achieve operational access in the face of armed opposition."²⁹

The next document, the Quadrennial Defense Review, unlike the National Security Strategy or Defense Strategic Guidance, specifically defines each of the respective Services' missions. Like the Defense Strategic Guidance, the QDR builds on and emphasizes the priorities outlined in the National Security Strategy by underscoring three pillars of its own: protect the homeland, build security globally, and project power and win decisively. The four-year review rolls the concept of deterrence and defeating aggression under two of its three pillars, building security globally and projecting power. In defining the Army's functions, roles, missions, and operations, the QDR states that the Army "will need to be capable of conducting prompt and sustained land combat as part of large-scale, multi-phase joint and multilateral operations."³⁰ Though the QDR does not specifically say the Army needs to stand ready to conduct amphibious operations—a mission that the QDR specifically assigns to the Marine Corps—it does state that the Army must be capable of conducing operations as part of a larger Joint Force.

A review of the Army's "roles, missions, and operations, in the context of strategic guidance documents," shows that the National Security Strategy, Defense Strategic Guidance, and Quadrennial Defense Review all indirectly suggest a need for the Army to have an ability to conduct amphibious operations without specifically stating as such.³¹ The NSS starts by stating the need for the United States to possess the capability to project power and defeat adaptive

²⁹ US Department of Defense, *Joint Publication: Joint Operational Access Concept* (Washington DC: Government Printing Office, 2012), i.

³⁰ US Department of Defense, *Quadrennial Defense Review* (Washington DC: Government Printing Office, 2012), 29.

³¹ JCIDS Manual, A-1.

enemies. The DSG narrows the National Security Strategy's guidance while maintaining the same thread of continuity on projecting power and defeating the nation's advisories. The QDR then describes the specific roles of each of the Services and specifically states that the Army will need to be capable of conducting combat as part of an integrated larger Joint Force. Joint doctrine takes the strategic guidance and distills it down into more specific concepts for employing each of the Services, and it is here that the need for the Army to develop and maintain an amphibious capability is clearly expressed.

Joint Capstone Concept & Joint Doctrine

Continuing to analyze and trace the threads of projecting power and deterring enemy aggression to the next lower next level of guidance leads to the Joint level. The first Joint document analyzed is the *Capstone Concept for Joint Operations: Joint Forces 2020* (CCJO). The CCJO "describes potential operational concepts through which the Joint Force of 2020 will defend the nation against a wide range of security challenges."³² The capstone concept "by definition articulates a high-order vision of how the future force will operate."³³ The Joint Capstone Concept lists ten primary missions for the US Military, while at the same time emphasizing potential threats the Joint Force will most likely face within the future operational

³² Capstone Concept 2020, 1.

³³ Ibid.

environment.³⁴ Two of the ten missions, deter and defeat aggression and project power despite A2/AD, nest directly with the strategic guidance within the National Security Strategy, Defense Strategic Guidance, and Quadrennial Defense Review. The overall concept outlined in the CCJO is a list of globally integrated operations amongst all the Services based off of the refined strategic guidance. This integrated list lays out eight elements the Joint Force will use to achieve "higher levels of military effectiveness against threats we will most likely face" in the future environment.³⁵ One of the eight elements listed states "globally integrated operations must provide the ability to seize, retain, and exploit the initiative in time and across domains," in other words power projection and deterring and defeating aggression.³⁶ To achieve this globally integrated operational Access Concept and the Joint Concept for Entry Operations.

The JOAC outlines a "concept for how Joint Forces will achieve operational access in the face of armed opposition by a variety of potential enemies and under a variety of conditions."³⁷ The JOAC defines the potential future environment the nation's military may face while executing missions that enable access into a theater of operations. As the access concept states, American forces must be "able to project military force into an operational area and sustain it in

³⁴ The ten primary missions "through which the Joint Forces will protect U.S. national interest" are the following: counter terrorism and irregular warfare, deter and defeat aggression, project power despite anti-access/area denial challenges, counter weapons of mass destruction, operate effectively in cyberspace and space, maintain a safe, secure, and effective nuclear deterrent, defend the homeland and provide support to civil authorities, provide a stabilizing presence, conduct stability and counterinsurgency operations, and lastly, conduct humanitarian, disaster relief, and other operations; Ibid., 1-2.

³⁵ The eight elements of the globally integrated operations are the following: mission command, seize, retain, and exploit the initiative, global agility, partnering, flexibility in establishing Joint Forces, cross-domain synergy, use of flexible, low-signature capabilities, and increasingly discriminate to minimize unintended consequences; Ibid., 1.

³⁶ Ibid., 5.

³⁷ JOAC, 1.

the face of armed opposition when three trends apply: anti-access and area-denial weapons and technologies are dramatically improving and proliferating; U.S. overseas defense posture is changing; space and cyberspace are becoming increasing important and contested domains."³⁸ To successfully operate within the future environment of opposed access, the Joint Force will leverage, what the JOAC calls, cross-domain synergy. Cross-domain synergy is the "complementary vice merely additive employment of capabilities in different domains such that each enhances the effectiveness and compensates for the vulnerabilities of the others.³⁹ An example of cross-domain synergy would be an Army Brigade Combat Team complementing a Marine Air-Ground Task Force as part of a larger amphibious assault. Cross-domain synergy envisions a degree of joint operations amongst the Services, across all domains, down to the lowest level, lower than ever before. The operational access concept then details and outlines eleven operational access guidelines that provide a general overview of how the Joint Force will operate in the future to gain access in the face of armed opposition. The use of an amphibious force is the primary means of gaining that access to a theater of operations. The JOAC defines an amphibious force simply as a "task force and a landing force together with other forces that are trained, organized, and equipped for amphibious operations."⁴⁰ It further defines a landing force as a "Marine Corps or Army task organization formed to conduct amphibious operations."⁴¹ The landing force definition marks the first time in the various strategic documents or Joint publications the Army is specifically mentioned as being expected to have the capability to conduct amphibious operations.

- ³⁸ Ibid., 14.
- ³⁹ Ibid., 15.
- ⁴⁰ Ibid., 40.
- ⁴¹ Ibid., 43.

With the JOAC providing the Joint Force with an overall concept of gaining operational access to an area of operations, the JCEO provides the concept of how "Joint Forces will conduct entry operations in an environment of advanced area denial systems possessed by a variety of potential enemies and under a variety of conditions, as part of a unified action."⁴² The entry concept states that the task of conducting entry operations involves four types of Joint Forces: "Support Forces, Initial Entry Forces, Reinforcing Entry Forces, and Follow-on Forces."43 Support Forces shape the environment and support the conduct of joint entry operations. Initial Entry Forces are the first forces onto foreign territory through means of amphibious operations, as well as air assault, airborne operations, or air-land operations. The Reinforcing Entry Forces do just as its title suggests and reinforce Initial Entry Forces shortly after the initial entry into a theater of operations. Reinforcement Entry Forces are typically more heavily equipped then the Initial Entry Forces. The key to both the Initial and Reinforcing Entry Forces is that they are capable of conducting operations immediately upon entry into the foreign territory. The last force, the Follow-on Forces, deploy once the Initial and Reinforcing Forces have established a lodgment. According to the JCEO, the larger Joint Force expects the Army to be able to provide forces for and be a component of each of the four types of forces.

Both joint publications, the JOAC and the JCEO, use the same Joint definition for amphibious forces and landing forces. The landing force definition specifically mentions the Army as a "task organization which is part of the amphibious force, formed to conduct amphibious operations."⁴⁴ The fact that the strategic guidance documents do not specifically assign the role of amphibious operations to the Army does not mean that the Army does not need

⁴² US Department of Defense, *Joint Publication: Joint Concept for Entry Operations* (Washington DC: Government Printing Office, 2014), 1.

⁴³ Ibid., 15.

⁴⁴ JP 1-02, 152.

to possess the ability to conduct amphibious warfare. It is evident when analyzing the strategic documents, in conjunction with the Joint Concept for Access and Entry Operations, which all nest with the strategic guidance, the Joint Force very much expects the Army to possess an amphibious capability for future operations.

Even without the strategic documents specifically identifying the need for the Army to execute amphibious warfare, the Army leadership has recognized the requirement. The Army Strategic Planning Guidance 2014 specifically states "the Army mans, trains, and equips combat forces to conduct airborne (parachute), air assault (helicopter), and amphibious joint forcible entry operations to seize lodgments or other key objectives."⁴⁵ Even with the Joint Force and the Army itself identifying the need for the largest land force to have the capability to maneuver from the sea, there are other factors that contribute to the need for the Army to possess an amphibious capability.

Contributing Factors

National Interest

In addition to the evidence provided by the strategic documents and Joint publications, in accordance with the JCIDS process, other factors contribute to the requirement for the Army to possess amphibious capabilities. These other factors include alignment with national priorities, an emerging China with unknown intentions, the limited capacity of the US Marine Corps, and the US Army's historical ties to amphibious operations. This study will conduct a brief analysis of

⁴⁵ Department of the Army, *Army Strategic Planning Guidance 2014* (Washington DC: Government Printing Office, 2014), 7.

each of the four factors with respect to demonstrating the need for the Army to possess forcible entry operations capabilities.

The first factor as to why the Army should be capable of conducting ship-to-shore combat operations is to align the Army with the nation's current global focus, the Asian-Pacific region. In the fall of 2011 through a variety of speeches given by President Barack Obama and individuals in the president's administration, the United States announced to the world that America was rebalancing and refocusing its attention towards the Asian-Pacific region. President Obama himself stated "the United States has been, and always will be, a Pacific nation."⁴⁶ Former Secretary of State Hillary Clinton described the rebalance as "one of the most important tasks of American statecraft over the next decade will therefore be to lock in a substantially increased investment — diplomatic, economic, strategic, and otherwise — in the Asian-Pacific region."⁴⁷ Economically, the United States realizes that by the year 2040 over half of the world's population will live in the Asian region.⁴⁸ China and India, with their populations of over a billion people in each country, will hold the majority of population with millions more living in the surrounding island nations. American businesses realize that if they want to compete within Asian markets and have access to those billions of consumers residing in Asia, the United States must be involved within the region. Free Trade Agreements with Korea and Singapore already exist and provide a limited market to US products. The Trans-Pacific Partnership (TPP), currently under

⁴⁶ Barack Obama, "Remarks by President Obama to the Australian Parliament," *whitehouse.gov*, last modified November 17, 2011, accessed October 14, 2014, http://www.whitehouse.gov/the-press-office/2011/11/17/remarks-president-obama-australian-parliament.

⁴⁷ Hillary Clinton, "America's Pacific Century," *Foreign Policy*, October 11, 2011, accessed October 1, 2014, http://www.foreignpolicy.com/articles/2011/10/11/americas_pacificcentury#sthash.A9kEx9rp.uavqlJyV.dpbs.

⁴⁸ United Nations, "Half the Global Population Will Live In Cities By End Of This Year, Predicts UN," *un.org*, last modified February 26, 2008, accessed November 4, 2014, http://www.un.org/apps/news/story.asp?NewsID=25762.

negotiation, will "unlock opportunities for American workers, families, businesses, farmers, and ranchers by providing increased access to some of the fastest growing markets in the world" and dramatically increase economic ties between the United States and Pacific nations. The TPP is the cornerstone of President Obama's Administration's economic policy toward the Asian-Pacific region and, if ratified by Congress, will develop strong economic relations between the United States and ten other Pacific nations, excluding China.⁴⁹ America's future economic involvement in the Asian-Pacific region reason falls in line with the strategic guidance outlined above in both the NSS and the DSG. Protecting US national interest, including economic interest, abroad is one of the US Military's primary missions.

To secure America's economic and diplomatic interest in the Asian-Pacific region, the United States is strategically increasing its military efforts in the region. The Department of Defense stressed the military rebalance toward Asia in its publication *Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense*, where it states, "to contribute to security globally, we will of necessity rebalance toward the Asian-Pacific region."⁵⁰ A Marine Air Ground Task-Force consisting of 2,500 Marines stationed at Darwin, Australia on a rotational basis was one of the first indicators of the United States stepping up its security forces within the Asian-Pacific region.⁵¹ Joint bilateral and multi-national military exercise between the militaries of the United States and Asian countries, conventional arms sales to different Asian countries, and naval presence in the region all increased over the past three years since the United States'

⁴⁹ Office of the United States Trade Representative, "Trans-Pacific Partnership," *ustr.gov,* last modified November 10 2014, accessed November 18, 2014, http://www.ustr.gov/tpp/Summary-of-US-objectives.

⁵⁰ Sustaining U.S. Global Leadership, 2.

⁵¹ Timothy J.A. Adamson, Michael E. Brown, Mike M. Mochizuki, Deepa Ollappaly, and Robert G. Sutter, "Balancing Acts: The U.S. Rebalance and the Asia-Pacific Stability" (George Washington University, August 2013), 11, http://www.gwu.edu/~sigur/assets/docs/BalancingActs Compiled1.pdf.

announcement of the rebalance. The Army, that maintained a small presence in the region, realized it needs a larger presences in that area of the world. With the thousands of island and tens of thousands of miles off coastline, amphibious operations are a conduit to increase the Army presence.

Future Operational Environment

The ascendance of China over recent decades contributes to the justification that the Army should poses some type of amphibious capability. The rise of China itself is not a justification, but how China is interacting with its neighbors as a result of its rise and its continued quest for natural resources is a contributing factor pushing the Army towards amphibious warfare. China's advancement in the region however has caused a strategic shift for the current administration and DoD, and this shift helps to justify increasing requirements for amphibious capability— a requirement the Army can help to meet. The operational environment in the Asian-Pacific region is not the same today as it was during the interwar period between World War I and World War II, but there are some similarities that resonate today. Japan in the early twentieth century, sought to expand abroad after a drive for national modernization replaced its self-imposed isolationism.⁵² Japan's rapid industrialization, increased demand for raw material and natural resources, development of a modern military, and a rise nationalism, all were factors that led to Imperial Japan attempting to establish itself as a regional hegemony. With Imperial Japan's rise to regional hegemony, it sought to gain territory and attempted to push the United States out of the region. According to University of Chicago political scientist John Mearsheimer, "states that achieve regional hegemony have a further aim: they seek to prevent great powers in

⁵² Paul Kennedy, *Engineers of Victory: The Problem Solvers Who turned the Tide in the Second World War* (New York: Random House Publishing, 2013), 284.

other geographical regions from duplicating their feat."⁵³ As a result of World War II, the United States military, through an extensive use of amphibious warfare, effectively prevented Japan from gaining lasting regional hegemony status.⁵⁴ Mr. Mearsheimer further wrote that America has invested heavily in the Asian-Pacific region for over a century to establish itself as the regional hegemon, and after achieving that goal, it has and will continue to make sure that no other power attempts to surpass United States dominance in the region.⁵⁵

In today's current environment a popular view with the academic fields of international relations and political science is that China is challenging the current international status within the region.⁵⁶ China imports 6.2 million barrels of oil a day, accounts for almost half of the world's coal consumption, and consumes 5.5 trillion cubic feet of natural gas per year in order to help keep its economy running.⁵⁷ With limited resources within the borders of China, the large economic powerhouse willingly sought, and continues to seek, additional natural resource rich locations in which to extract the resources required to keep its industries running. China decided to cooperate with some of the nations, i.e. Saudi Arabia, Russia, and Iraq, from which it wanted to extract resources and with other nations it chose a heavier handed approach, i.e. Malaysia, Philippines, and Vietnam. China's aggressive approach to its neighbors to the south resulted in ongoing territorial disputes and competing claims of ownership over natural resources within

⁵³ John Mearsheimer, "The Gathering Storm: China's Challenge to US Power in Asia," *Chinese Journal of International Politics* 3, no. 4 (2010): 388, accessed September 29, 2014, http://cjip.oxfordjournals.org/content/3/4/381.extract#.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Alastair Johnston, "Is China a Status Quo Power?" *International Security* 27, no. 4 (Spring 2003) 5, accessed January 6, 2015, http://belfercenter.ksg.harvard.edu/files/johnston_spring_2003.pdf.

⁵⁷ US Energy Information Administration, "China," *eia.gov*, last modified February 4, 2014, accessed November 17, 2014, http://www.eia.gov/countries/cab.cfm?fips=ch.

South China Sea.⁵⁸ The territory within the Nine-Dash Line includes competing claims by China, as well as Brunei, Malaysia, the Philippines, and Vietnam.⁵⁹ The competing interest between China and its neighbors within the Nine-Dash Line territory, including the Paracel Islands (China and Vietnam), the Spratly Islands (China, Vietnam, Malaysia, Brunei, and Philippines), and the Scarborough Shoals (China and Philippines) led to a rise in maritime incidents between the People's Liberation Army Navy and other South-East Asian nations civilian and military vessels.⁶⁰ Incidents so extreme that Chinese military ships have sunk vessels of countries that are contesting the Chinese for territory within the South China Sea.⁶¹

Fortunately for the United States and the region, China has yet to act overtly aggressive toward one of America's treaty nation allies. In the South Pacific region, the United States has Collective Defense Arrangements with four of China's neighbors: Japan, Philippines, Republic of Korea, and Thailand. In addition to Japan, Philippines, Republic of Korea, and Thailand having Collective Defense Arrangements with the United States, each of these countries also have ongoing territorial disputes with China. While continuing its pursuit of natural resources, if China

⁵⁸ Ernest Bower, "China's 'aggressiveness' is drawing ASEAN closer," *dw.de*, last modified May 13, 2014, accessed January 6, 2015, http://www.cnn.com/2014/05/27/world/ asia/vietnam-china-paracels-fishing-boat-collision/.

⁵⁹ The Nine-Dash Line refers to the disputed waters within the South China Sea. China claims sovereignty over 90% of South China Sea waters and the natural resources that lie beneath the water. China's claim to the territory is not recognized internationally and is disputed by the other nations bordering the South China Sea; Council on Foreign Relations, "China's Maritime Disputes," *cfr.org*, last modified December 1, 2013, accessed January 31, 2015, http://www.cfr.org/asia-and-pacific/chinas-maritimedisputes/p31345#!/?cid= otr-marketing_use-china_sea_InfoGuide#contested-waters.

⁶⁰ Daniel R. Russell, Assistant Secretary, Bureau of East Asian and Pacific Affairs, testifying on Maritime Disputes in East Asia, on February 5, 2014, before the House Committee on Foreign Affairs Subcommittee on Asia and the Pacific, *state.gov*, Washington DC, accessed January 31, 2015, http://www.state.gov/p/eap/rls/rm/2014/02/221293.htm.

⁶¹ Paul Armstrong, "Vietnamese boat sinks after collision with Chinese vessel in disputed waters," *cnn.com*, last modified May 27, 2014, accessed October 18, 2014, http://www.cnn.com/2014/05/27/world/asia/vietnam-china-paracels-fishing-boat-collision/.

were to aggressively engage in actions against one of the United States' treaty allies, in accordance with the treaty, the US would "in that event act to meet the common danger in accordance with its [each party nation] constitutional process" potentially drawing America into a conflict with China.⁶² The belief of a potential war between China and the world's only superpower is not just a farfetched idea. A potential Sino-American war is a readily accepted belief by some prominent political scientists. As early as the late 1990s sinologist Arthur Waldron stated "sooner or later, if present trends continue, war is probable in Asia... China today is actively seeking to scare the United States away from East Asia"⁶³ A few years later political scientist Richard Betts and Thomas Christensen commented that "it is hardly inevitable that China will be a threat to American interest, but the United States is much more likely to go to war with China than it is with any other major power."⁶⁴A little less than a decade later John Mearsheimer reiterated the same feelings towards China's rise and stated "to put it bluntly, China cannot rise peacefully."⁶⁵ In the same article Mearsheimer made the comment that in the future China will attempt to become so powerful that no nation in the region will dare challenge it. However he predicts that though it is "unlikely that China will pursue military superiority so that it can go on the warpath and conquer other countries in the region [as Japan did pre-World War

⁶² US Department of State, "U.S. Collective Defense Arrangements," *state.gov*, last modified March 5, 2013, accessed November 5, 2014, http://www.state.gov/s/l/treaty/collectivedefense/.

⁶³ Arthur Waldron, quoted in Joseph S. Nye, "China's Re-emergence and the Future of the Asian-Pacific," *Survival* 39, no. 4, (December 1997): 65, accessed November 5, 2014, http://www.tandfonline.com/doi/abs/10.1080/00396339708442944?journalCode=tsur20#.

⁶⁴ Richard K. Betts and Thomas J. Christensen, "China: Getting the Questions Right," *National Interest* (Winter 2000-2001): 17, accessed November 2, 2014, http://nationalinterest.org/article/china-getting-the-questions-right-408.

⁶⁵ Mearsheimer, 382.

II], although that is always a possibility."⁶⁶ If China, or any other Pacific nation, would reach the point where it would use force to seize and control foreign territories, the United States might find itself in a position similar to that of 1941, where amphibious operations were the primary method of combat operations.

Limited Amphibious Capabilities

If the United States military ever found itself in a position where it did indeed need to conduct amphibious operations, the Army would not be the first Service DoD would turn to. The Marine Corps would be the first to answer the call. Since the days of Lt Col. Peter Ellis and his report *Advance Base Operations in Micronesia* in the early decades of the twentieth century, the Marines have put themselves at the forefront of amphibious operations.⁶⁷ Ellis' report, written in support of War Plan Orange, was one of the first reports in the US military concerning the use of forcible entry operation against a hostile force. Maj Gen John Lejeune adopted Ellis' study and made it the foundation of Marine Corps amphibious warfare doctrine.⁶⁸ Through its intimate relationship with the Navy, the Marines developed the art of amphibious warfare that well exceeds the majority of nation's amphibious capabilities across the world. Ever since the publication of the *Functions of the Armed Forces and the Joint Chiefs of Staff*, more commonly referred to as the Key West Agreement of April, 1948, the Marine Corps has had the responsibility of "amphibious warfare" and for the "amphibious training of all forces as assigned

⁶⁶ Ibid, 389.

⁶⁷ Department of the Navy, Fleet Marine Force Reference Publication 12-46: *Advanced Base Operations in Micronesia* (Washington DC: Government Printing Office, 1921), 3.

⁶⁸ Edward S. Miller, *War Plan Orange* (Annapolis, MD: United States Naval Institute, 1991), 116.

for joint amphibious operations."⁶⁹ The Marine's current capstone concept, *Expeditionary Force* 21: FORWARD and READY: Now and in the Future, lists the roles of Marine Corps, two of these are amphibious in nature. The first function is to "seize and defend advanced naval bases or lodgment to facilitate subsequent joint operations" and the fifth function is "to conduct amphibious operations . . . The Marine Corps has the primary responsibility for the development of amphibious doctrine, tactics, techniques, and equipment."⁷⁰ There is no questioning the Marine Corps dominance in the area of amphibious operations.

The limitations of the Marine Corps lie, not within the Marine's ability to maneuver from the sea, but with the strength of the Marine Corps in the Asian-Pacific region. III Marine Expeditionary Force (III MEF) is the three-star Marine combatant command responsible for the Asian-Pacific region. III MEF consist of approximately 25,000 Marines assigned to the subordinate commands of III MEF, the 3D Marine Division, 1st Marine Air Wing, 3D Marine Logistics Group, 31st Marine Expeditionary Unit (31st MEU) or 3D Marine Expeditionary Brigade.⁷¹ III MEF and its subordinate units are responsible for an area of operations that consist

⁶⁹ Of note, the 1948 Key West Agreement, even though it assigned the primary responsibility of amphibious warfare to the Marine Corps, did not forbid the Army from conducting amphibious operations. In actuality, it assigned the Army the role of conducing Amphibious Operations as well. The Army's fourth primary function listed was to "develop, in coordination with other Services, tactics, techniques, and equipment of interest to the Army for amphibious operations." James Forrestal, Office of the Secretary of Defense, "*Functions of the Armed Forces and the Joint Chiefs of Staff*," April 21, 1948, accessed on November 19, 2014, http://cgsc.cdmhost.com/cdm/ref/collection/p4013coll11/id/729.

⁷⁰ Department of the Navy, Headquarters United States Marine Corps, *Expeditionary Force 21: FORWARD and READY: Now and in the Future* (Washington DC: Government Printing Office, 2014), 5.

⁷¹ III MEF is a scalable organization with a strength that can fluctuate anywhere from 25,000 up to potentially 90,000 Marines. If a situation presented itself where III MEF required 100% manning strength to its full 90,000 capacity, the Marine Corps would have to accept risk in other regions of the world and pull the additional personnel from either I MEF or II MEF. Kenneth Glueck, "III Marine Expeditionary Force: 'Tip of the Spear' Command Brief," (lecture, Marine Command and Staff College, Quantico, VA, May 1, 2013).

of approximately 60% of the world's population, forty-five different countries, nine of the top twenty largest militaries, five of the seven Collective Defense Agreement nations, and an extremely dispersed littoral area including over 24,000 islands.⁷² In addition, the Asian-Pacific region is the "world's most disaster-prone region, registering the largest number of people affected, as well as the largest number of people killed by disasters between 2002 and 2011."73 For example, in 2005 there were approximately five-hundred disasters that affected the region.⁷⁴ Of those five-hundred, the US Government responded to seventy-nine, of which six involved the US Military.⁷⁵ III MEF, with its forward deployed presence provided by the 31st MEU, has the responsibility, if called upon, to respond to provide humanitarian assistance and disaster relief to the affected areas. When you couple the small size of III MEF, in relation to its area of operations, with the fact that military humanitarian assistance and disaster relief responses average from one to six months in duration, it is clear that the Marine Corps has the potential to be stretched extremely thin to the point of possible mission failure.⁷⁶ In addition to the humanitarian assistance missions, include the large number natural disasters, the potential hotspots amongst regional powers, the training exercises III MEF conducts per year with regional partners, and the limitations of the capacity of the Marine's amphibious assault vehicles, which

⁷² Ibid.

75 Ibid.

⁷³ United Nations, Economic and Social Commission for Asia and the Pacific, "*Statistical Yearbook for Asia and the Pacific: 2013*," October 1, 2013, 207, http://www.unescap.org/stat/data/syb2013/escap-syb2013.pdf.

⁷⁴ Jessica Ear, "Education Crucial to Future U.S. HADR Missions," *apcss.org*, last modified March, 13, 2014, accessed February 7, 2015, http://www.apcss.org/education-crucial-to-future-u-s-hadr-missions/.

⁷⁶ Jennifer D. P. Moroney, Stephanie Pezard, Laurel E. Miller, Jeffrey Engstrom, and Abby Doll, "Lessons from Department of Defense Disaster Relief Efforts in the Asian-Pacific Region," *rand.org*, 2013, accessed February 7, 2015, http://www.rand.org/content/dam/rand/pubs /research_reports/RR100/RR146/RAND_RR146.pdf.

will be discussed later in this study, it is only logical to conclude that resources can only be stretched so far before III MEF potentially reaches its culmination point.⁷⁷ With Army units operating within the same Asian-Pacific area of responsibility it is a reasonable presumption to conclude the Army needs to have, at a minimum, a brigade combat team familiar with the conduct of amphibious operations in the event they are needed to supplement the Marines. With the Marine Corps' identified limitations within the Asian-Pacific area of responsibility the question posed to the Joint Force is whether to increase the Marine's amphibious capacity or to focus on revitalizing the Army's amphibious capability. How the Joint Force proceeds to answer that question, and the ultimate solution it comes to, is outside the scope of this work. This study focuses on assessing the Army's current amphibious capability.

History of Army Amphibious Operations

Another factor to bolster the argument that the Army needs to possess some amphibious capability is the Army's history with amphibious operations. Throughout the Army's 238 year history the nation has called upon the Army to conduct amphibious operations multiple times in the past and developed doctrine based on those experiences. In the early years of the Army's history during the Revolutionary War and the War of 1812, amphibious operations were limited river crossings and lake operations.⁷⁸ The amphibious assault at Vera Cruz under the command of Major General Winfield Scott on March 9, 1847 during the Mexican American War was the

⁷⁷ The Army's Unified Land Operations defines the culminating point, while conducting stability operations, as either "units being too dispersed to achieve wide area security or units lacking required resources to achieve the end state." Department of the Army, Army Doctrine Reference Publication 3-0: *Unified Land Operations* (Washington, DC: Government Printing Office, 2012), 4-8.

⁷⁸ Donald W. Boose, *Over the Beach: US Army Amphibious Operations in the Korean War* (Fort Leavenworth: Combat Studies Institute Press, 2008), 12.

Army's largest amphibious operation to date.⁷⁹ Though the landing at Vera Cruz was unopposed, it did demonstrate the Army's ability to conduct ship-to-shore operations outside of its typical land operation mission set. Throughout the American Civil War the Union Army again carried out amphibious operations throughout the course of the war and though it gained extensive experience, the Army failed to capture and codify those experiences into formal doctrine.⁸⁰

With the Spanish American War providing limited amphibious experience and World War I providing virtually no experience, the US Army's intense involvement in amphibious operations did not start until the early 1920s. The rising threat of Japan in the Asian-Pacific region was a concern for all the Services and each Service began to look at how it could contend with and defeat the rising threat. In 1920, a year before Lt Col Ellis submitted his *Advance Base Operations in Micronesia* report to Maj Gen Lejeune, MG Charles G. Morton (USA), Commanding General, Hawaiian Department, published *Landing in Force*, which entailed a detailed description of Japanese amphibious operations on the Korean Peninsula and Manchurian coast. MG Morton stated "a study of this subject [amphibious operations] is of material value to American officers, for our future wars may involve either landing in the face of an enemy or the defense off our own shores against similar actions."⁸¹ Starting with the publishing of MG Morton's study on Japanese amphibious operations and up through World War II, the Army continually developed its own waterborne forcible entry capacity. The Army published its own manual on amphibious operations, the Field Manual (FM) 31-5, *Landing Operations on Hostile Shores*, in November 1944. This document deviated very little from the Marine Corps manual of

⁷⁹ Ibid., 13.

⁸⁰ Ibid., 16.

⁸¹ Charles G. Morton, "Landing in Force," *Infantry Journal* XVI, no. 12 (June 1920). 981, accessed January 3, 2015, https://books.google.com/books?id=edg2AQAAMAAJ.

Tentative Landing Operations.⁸² In addition to the published doctrine, the Army identified units specifically designated to conduct amphibious operations, as well as established its own amphibious training center.

As early as 1939 the 3rd Infantry Division stationed at Fort Lewis, Washington and the Engineer School at Fort Belvoir, Virginia, began preparations and training in anticipation of conducting amphibious operations against the Japanese.⁸³ Less than two years later a second division, the 1st Infantry Division, began amphibious training. After a short period of cooperation with the Marine Corps where 1st Infantry Davison and the 1st Marine Division (1st MARDIV) partnered up to form Amphibious Force, Atlantic Fleet, and 3rd Infantry Division in cooperation with 2nd MARDIV established Amphibious Force, Pacific Fleet for joint amphibious training, the Army chose to break away from the joint training and form its own training command.⁸⁴ The 9th Infantry Division was a third division designed to conduct amphibious training, but the Army never paired it up with a Marine Division. A report submitted in April 1942 by Lt Col Floyd L. Parka, Army Ground Forces Deputy Chief of Staff, on the status and effectiveness of 3rd Infantry Division's joint training with the 2nd MARDIV was the catalyst for the disintegration between the Army and the Marines. MG John P. Lucas, Commanding General of 3rd Infantry Division, provided comments on Lt Col Parka's report and provided three considerations. The first was that "the structure for amphibious training at the time the 3d Division was being trained was 'unwieldy, ineffective, and dangerous."⁸⁵ The second was that "the planning, preparation, and training for amphibious operations up to that time had been so deficient that a real operation

⁸² Boose, 15 & 28.

⁸³ Ibid., 25.

⁸⁴ Ibid., 28-29.

⁸⁵ Marshall Becker, *The Amphibious Training Center*, Study No. 22, Historical Section: The Army Ground Forces (Washington DC: Government Printing Office, 1945), 1.

against a competent enemy could end only in disaster for American forces."86 MG Lucas' third consideration was "the prevailing Army-Marine amphibious set-up was unsound because only the Army had both the means and the grasp of the problem to plan, prepare, and train the necessary ground and air forces for joint amphibious operations on the scale envisaged."⁸⁷ As a result of the failed joint amphibious training effort between the Army and the Marine Corps the Army established the Amphibious Training Center on May 20, 1942.⁸⁸ The War Department directive establishing the Amphibious Training Center outlined the objective for the newly established command, that included development of doctrine and training tactical units in "all phases of the operations of Army units involved in embarking troops and equipment in small boats from the land, the approach to and loading on a hostile beach, the establishment of a beachhead, and the preparation and initiation of an [sic] attaok [on an] island."⁸⁹ The War Department directed the Amphibious Training Center to train a total of twelve division in preparation for expected amphibious operations in both the European and Pacific theaters.⁹⁰ In addition to the training of infantry divisions, the Army also developed individual brigades with special and unique skill directly aimed at clearing beach obstacles in preparation of an amphibious landing. These special brigades, later designated as Engineer Special Brigades, played a significant role in the successful execution of amphibious operations throughout World War II.⁹¹ From the post-World War I years

⁸⁶ Ibid.

⁸⁷ Ibid.

89 Ibid.

⁸⁸ The Army's Amphibious Training Center's headquarters were located at Camp Edwards, Massachusetts, with two additional training facilities located at Carrabelle, Florida and Fort Lewis, Washington; Ibid, 3.

⁹⁰ Ibid., 1.

⁹¹ William Heavey, *Down Ramp: The Story of the Army Amphibian Engineers* (Nashville, TN: The Battery Press, 1988), 70.

to the end of World War II the Army reached the height of amphibious capabilities. Throughout the course of multiple named operations—operations such as TORCH, AVALANCHE, HUSKY, CARTWHEEL, DRAGOON, and OVERLORD—the Army successfully developed doctrine for, trained units on, and executed amphibious operations as part of their primary mission of conducting sustained land combat.⁹² The amphibious operations conducted by the Army during World War II not only aimed to secure the beachhead, but planned to conduct follow on operations further inland after the initial landing. The amphibious operation was just the first phase of the overall operation of the Army.

Post World War II "there was a dichotomy in the Army attitude toward amphibious operations."⁹³ Leaders in the Army who witnessed the European amphibious operations concluded "amphibious operations as inherently dangerous, risky, and unnecessary except when needed to establish an initial lodgment."⁹⁴ While others who served in the Asian-Pacific region were "convinced that amphibious warfare would continue to be an essential military capability."⁹⁵ Whether European Theater or the Pacific Theater, there was an accepted attitude in the Army that "the Marines might have invented the doctrine for landing on hostile shores, but the Army had developed the techniques for large-scale operations and had conducted more amphibious operations during the war.⁹⁶ Following the conclusion of World War II and with the signing of the Key West Agreement, the Army's role in amphibious operations began to decline. The Army experienced a resurgence of amphibious training during Korean War in preparation for the

⁹⁵ Ibid.

96 Ibid.

⁹² Boose, 57-60.

⁹³ Ibid., 69.

⁹⁴ Ibid.

landing at Inchon during Operation CHROMITE. During the Inchon Landings the 7th Marines were the first Service to assault the beach followed by the Army's 7th Infantry Division, which effectively conducted an administrative landing.⁹⁷ Following the Korean War, the Army continued to train on amphibious operations up through the mid-1960s. With increased involvement in major land operations in Vietnam the Army's ship-to-shore capabilities shifted from combat operations aimed at assaulting an enemy held shoreline to conducting over-the-shore logistics.⁹⁸ Airborne and the new airmobile warfare developed throughout the course of the Vietnam War took the place of amphibious operations as the Army's method of entry operations.⁹⁹

Why the Army Needs Amphibious Capabilities

From the National Security Strategy's strategic guidance of pursuing the nation's four national interests, to the Defense Strategic Guidance of possessing the capability to project and sustain large-scale military operations, down to the Chairman of the Joint Chiefs of Staff's *Capstone Concept for Joint Operations – Joint Force 2020*, it is evident that the Department of Defense, as well as the overall national security structure, expects the Army to have the capability to participate in an opposed amphibious landing against an enemy help beachhead as part of a larger Joint Force. The strategic and Joint Force expectations, the nation's rebalance toward the

⁹⁷ Ibid., 166.

⁹⁸ Joint Publication describes over-the-shore-logistics as the process of discharging cargo from vessels anchored off-shore or in the-stream, transporting it to the shore and/or pier, and marshalling it for movement inland; Department of Defense. Joint Publication 4-01.6: Joint Tactics, Techniques, and Procedures for Joint Logistics Over-the-Shore (JLOTS) (Washington DC: Government Printing Office, 1998), ix.

⁹⁹ Boose, 327.

Asia-Pacific region, the uncertainty concerning China, the limited capabilities of the US Marine Corps, and the Army's deep history surrounding amphibious operations all demonstrate the need for the Army to develop the means to participate in the conduct of amphibious warfare. The question now is, if called upon to do so, can the Army successfully maneuver from ship-to-shore to assault a hostile shoreline. The focus of this study is to analyze the Army's current ability to conduct amphibious operations. The question the Joint Force must answer of whether to increase the Marines capacity or the Army's capability is beyond the scope of this work and is not discussed in the following sections.

DOTMLPF Breakdown

Now that the analysis of the strategic guidance and Joint doctrine identifies a need for amphibious capabilities within the Army, the next question asked is what gaps currently exist that prevent the Army from successfully accomplishing its amphibious mission? This study will use the DOTMLPF framework to help answer that question. The Army's DOTMLPF framework develops "solutions to resolve or mitigate the gaps identified as having unacceptable risk" when in relation to the Army accomplishing its assigned missions.¹⁰⁰ This monograph will further analyze each of the elements in the DOTMLPF framework in relations to the Army's current amphibious capabilities.

¹⁰⁰ TRADOC Regulation 71-20, 10.

Doctrine

Joint Publication 1-02 defines doctrine as "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives."¹⁰¹ It is evident from analyzing the strategic guidance and joint doctrine developed by the nation's civilian and military leadership that one of the Army's assigned missions is to conduct amphibious operations. Following the thread from the NSS's enduring interest of security and international order, to the DSG's directive of possessing the ability to project power, to the QDR's ordering of the Army to conduct operations as part of a larger Joint Force, to the Joint Operational Access Concept and the Joint Concept of Entry Operations specifically stating the Army's role in amphibious operations an individual can see how the Army conducts actions in support of national and military objectives.

Because of the Army's lack of focus on amphibious operations a conclusion would therefore be that a significant gap exists within the Army's amphibious doctrine as well. The basis behind that thought process was that the last Army pure doctrinal publication covering amphibious operations was the FM 5-144, *Engineer Amphibious Units*, published in November, 1966. ¹⁰² Since that November, 1966 publication the Army has not produced a field manual dedicated to the conduct of amphibious warfare. The word amphibious has almost vanished from the Army's doctrinal verbiage all together. The most current set of Army Capstone Doctrine, the Army Doctrine Publications (ADP) and Army Doctrine Reference Publication (ADRP), thirty-one publications in all excluding changes, only used the word amphibious a total fourteen times. Of the fourteen times, five of the usages are found in ADRP 1-02, *Terms and Military*

¹⁰¹ JP 1-02, 78.

¹⁰² Department of the Army, Field Manual 5-144: Engineer Amphibious Units (Washington DC: Government Printing Office, 1966).

Symbols, and are used to depict amphibious symbols and graphics.¹⁰³ The lack of recognition of the Army's requirement to conduct amphibious operations, as detailed above, and the lack of the use of the term amphibious in Army doctrine is even more surprising since the Army's primary doctrine publication, ADP 1: *The Army*, specifically annotates that its missions, as directed by Department of Defense Directive 5100.01, is to "conduct airborne, air assault, and amphibious operations."¹⁰⁴

However, the lack of Army pure amphibious doctrine does not put the nation's largest land force at a significant disadvantage. The US Marine Corps is the preeminent amphibious force all across the globe. To remain that preeminent force the Marine Corps continually modifies, changes, and updates its amphibious doctrine to meet the challenges of the current and future operational environment. With the latest push for the Marine Corps to return to its amphibious roots, the Marines amphibious doctrine is set to get revitalized yet again.¹⁰⁵ In 2013, General James Amos, the then-Commandant of the Marine Corps, stated his priorities for the Corps were to regain and advance "in our amphibious core competency."¹⁰⁶ The Marine Corps' *Expeditionary Force 21* capstone concept states how despite the increased A2/AD threat within

¹⁰³ Department of the Army, Army Doctrine Reference Publication 1-02: *Terms and Military Symbols* (Washington DC: Government Printing Office, 2013) 1-23, 4-4, 5-4; The remaining publications that use the term amphibious are the ADP 1, ADP 1-01, ADP 3-09, ADRP 3-05, ADRP 3-09, and ADRP 3-90. Of those, only the ADP 1, ADP 3-09, and the ADRP 3-05 discuss the Army's potential role in amphibious operations.

¹⁰⁴ Department of the Army, Army Doctrine Publication 1: *The Army* (Washington DC: Government Printing Office, 2012), 1-8; US Department of Defense, Directive Number 5100.01, "Functions of the Department of Defense and Its Major Components," December 21, 2010, accessed November 19, 2014, http://www.dtic.mil/whs/directives/corres/pdf/510001p.pdf.

¹⁰⁵ Terri Moon Cronk, "Marine Corps Returns to its Amphibious 'Wheelhouse," *defensenews.com*, June 27, 2014, accessed November 14, 2014, http://www.defense.gov/news/newsarticle.aspx?id=122564.

¹⁰⁶ Department of the Navy, Headquarters United States Marine Corps, *Marine Corps* Service Campaign Plan 2014-2022 (Washington DC: Government Printing Office, 2013), 6 & 7.

the littorals, the Marines "will continue to conduct future amphibious operations at the time and place of our choosing," and to do that the Marines must "scrutinize everything from concept to doctrine."¹⁰⁷

The reprioritization of amphibious operations by the Marine Corps benefits the Army greatly. The Army can, to a lesser extent, replicate the Marine Corps updated amphibious doctrine. Ever since the Army published its first Field Manual on amphibious operations it has borrowed liberally from the Marine's doctrine. Field Manual 31-5, though it was an Army specific manual, was "taken almost verbatim from the Navy/Marine Corps manual" *Tentative Landing Operations* published in 1934.¹⁰⁸ After the publication of a few Army specific field manuals in the early 1950s and 1960s, that still relied heavily on Marine doctrine, the Army ceased publishing its independent amphibious doctrine. The first joint doctrinal publication published in 1962, then modified in 1967, was the Marine Corps' Landing Force Manual 01, *Doctrine for Amphibious Operations*, that also served as the Army's FM 31-11. From the 1960s to the present, as envisioned in the Key West Agreement of 1948, the Army continues to rely on Marine Corps for the development of all amphibious doctrine.

The lack of Army only amphibious doctrine does not necessarily correlate to a significant gap in the Army's amphibious capability. For over the past seventy years the Army has either been using the Marine Corps' amphibious doctrine or has used multi-service doctrine to provide the fundamental principles for amphibious operations. When the nation calls upon the Army to conduct amphibious operations in the future, it will have to turn to the existing Marine or Joint doctrine to lay the foundation for the Army's understanding of conduct amphibious warfare.

¹⁰⁷ Expeditionary Force 21, 22 & 25.

¹⁰⁸ Boose, 15 & 28.

Organization

The JCIDS manual defines the "O" in DOTmLPF-P as "a joint unit or element with varied functions enabled by a structure through which individuals cooperate systematically to accomplish a common mission and directly provide or support joint warfighting capabilities."¹⁰⁹ TRADOC Regulation 71-20 describes the organization requirements of the DOTMLPF framework as being "derived from continuous assessment by the proponents to identify whether a new or modified organization is required for tomorrow's OE [operational environment]."¹¹⁰ The organizational structure of an amphibious operation is naturally a joint operation. No single Service, the Army or the Marine Corps included, has the capability to conduct amphibious operations against an armed opponent without assistance of another Service. However, the organizational structure of the Army and the Marine Corps make both Services extremely varied organizations capable of systematic cooperation aimed at accomplishing a common mission. The versatility of the Marine Corps comes from its ability to organize into a Marine air-ground task force (MAGTF). The MAGTF is a "balanced, air-ground combined arms task organization of Marine Corps forces under a single commander, structured to accomplish a specific mission."¹¹¹ A MAGTF is a formation, comprised of air assets, ground formations, and logistical elements, tailorable to each mission. Its "building-block approach . . . makes reorganization a matter of

¹⁰⁹ JCIDS Manual, A-5.

¹¹⁰ TRADOC Regulation 71-20, 74.

¹¹¹ Department of the Navy, Headquarters United States Marine Corps, Marine Corps Doctrinal Publication 1-0: *Marine Corps Operations* (Washington DC: Government Printing Office, 2001), 3-10 & 3-11.

routine."¹¹² One of a MAGTF's tasks is to conduct a forcible entry, via amphibious operations, and establish a lodgment in the face of armed opposition.¹¹³ However, the MAGTF is not the only versatile force structure within the military.

The Army, in the mid-1990s, had a vested interest to develop formations capable of integrating into the "Joint Forces that deploy rapidly . . . and employ assets representing all six warfighting functions simultaneously."¹¹⁴ The Army began to restructure itself and move away from the division formation structure to a modular, brigade-based force. The Army wanted modularity within its formation and by 2003 it began creating "standardized, self-contained units—combat, support, and headquarters—that could be assembled into, or "plugged into" larger formations as needed."¹¹⁵ The Army's current Brigade Combat Teams (BCT) are a product of the transformation to a more modular force. The modular BCTs provided "a mix of land combat power that can be task-organized for any combination of offensive, defensive, and stability or civil support operation as part of a campaign."¹¹⁶ The 2008 FM 3-0.1 highlights that the "Army's modular design allows other Service headquarters."¹¹⁷ The manual actually provides an example of a situation where an Army unit, an Army Maneuver Enhancement Brigade, is TACON to an

¹¹² Department of the Navy, Headquarters United States Marine Corps. Marine Corps Doctrinal Publication 3-0: *Expeditionary Operations* (Washington DC: Government Printing Office, 1998), 69.

¹¹³ MCDP 1-0, 2-8.

¹¹⁴ Department of the Army, Field Manual Interim 3-0.1: *The Modular Force* (Washington DC: Government Printing Office, 2008), 1-2.

¹¹⁵ William Donnelly, *Transforming an Army at War: Designing the Modular Force, 1991-2005* (Washington DC: Center of Military History, 2007), iii.

¹¹⁶ FMI 3-0.1, 1-2.

¹¹⁷ Ibid., 1-21.

amphibious Marine Expeditionary Force to "cooperate systematically to accomplish a common mission and directly provide or support joint warfighting capabilities."¹¹⁸ The Army's current modular BCT organization not only allows for Army units to cooperate systemically with other Joint Forces to achieve a single mission, it was specifically designed for that purpose. Therefore, there is no need to create specialized amphibious units as the Army has done in the past.

Training

The Army's last amphibious training exercise specifically designed to train on waterborne assaults against an enemy held beachhead occurred in 1964. The Army's 2nd Engineer Amphibious Support Command operating out of Fort Story, Virginia participated in a series of training exercises throughout the month of August, 1964, less than a year prior to the unit's deactivation.¹¹⁹ Approximately the same timeframe, the Army conducted its last major Army only planning exercise, Operation SUNSET. Operation SUNSET was an Engineer School planning exercise incorporated into the 1964 curriculum of the Engineer Officer Career Course. The planning exercise's objective was "to provide a general knowledge of amphibious operations" with a planning scenario called for the seizure of a "division beachhead, a link-up with airborne forces, and subsequent expansion of control over the initial objective area."¹²⁰ The scenario centered on a potential amphibious assault into Cambodia to rid the country of a

¹¹⁸ JCIDS Manual, A-5.

¹¹⁹ Department of the Army, "Lineage and Honors Information," *history.army.mil*, last modified on October 17, 2011, accessed November 25, 2014, http://www.history.army.mil/html/forcestruc/lineages/ branches/eng/0002enbde.htm.

¹²⁰ US Army Engineer School, *Operation SUNSET*, USAR ADT Course S.122-117 (Fort Belvoir, VA: The Department of Engineering and Military Science, US Army Engineer School, June 1, 1964), quoted in Donald W. Boose, *Over the Beach: US Army Amphibious Operations in the Korean War* (Fort Leavenworth: Combat Studies Institute Press, 2008), 337.

hypothetical "aggressor army."¹²¹ Since the mid-1960s, around the same time of the last Army specific amphibious manual, the Army's last major planning exercise, and the Army's last training exercise, the nation's largest land force has participated in very few amphibious exercises. For that matter, the Army has participated in very few joint amphibious training exercises at all. The Joint Forcible Entry Warfighting Experiment 2011 was the last Joint Force training exercise in that the Army participated which incorporated amphibious operations. However, the Army's primary means of forcible entry during the exercise concentrated on airborne operations and not amphibious operations. Army units from Ft. Bragg, Ft. Huachuca, Ft. Lee, and Ft. Sill, as well as various other representatives from the Sister Services, all participated in the February, 2011 exercise.¹²²

For the training element of DOTMLPF the Army defers to the Joint framework. TRADOC Regulation 71-20 states that "the appropriate proponent or TRADOC activity uses the JCIDS process to identify new DOTMLPF solutions that ultimately affect training and training support programs" and it does not have any additional requirements besides what the JCIDS manual highlights.¹²³ The JCIDS manual describes adequate training as "training, including mission rehearsals, of individuals, units, and staffs using joint doctrine or joint tactics, techniques, and procedures to prepare Joint Forces or Joint staffs to respond to strategic, operational, or tactical requirements considered necessary by the CCMDs [Combatant Commands] to execute

¹²¹ Historical Summary, June 1942 through December 1962, Headquarters, 2d Engineer Amphibious Support Command, April 2, 1965, quoted in Donald W. Boose, *Over the Beach: US Army Amphibious Operations in the Korean War* (Fort Leavenworth: Combat Studies Institute Press, 2008), 337.

¹²² Department of the Army, "Mission Command Battle Lab supports joint experiment," *army.mil*, last modified February 17, 2011, accessed on November 25, 2014, http://www.army.mil/article/52098/Mission Command Battle Lab supports joint experiment/.

¹²³ TRADOC Regulation 71-20, 76.

their assigned or anticipated missions."¹²⁴ The Joint Forcible Entry Warfighter Experiment was a step in the right direction for gaining proficiency in Army amphibious planning. A second positive step occurred in early 2013, when the Army started training on ship-to-shore combat operations. In April 2013, the 25th Infantry Division began certifying some of its AH-64D Apache attack helicopters to operate from Navy amphibious ships.¹²⁵ Ship-to-shore movements via air are an integral part of amphibious operations. The increased interest in certifying and training Apache pilots on sea-basing operations as part of a larger amphibious Joint Force is in response to the Nation's and the Army's increased focus on the Asia-Pacific region. However, the Army's participation in only one joint training exercise does not meet the requirement for training as outlined in the JCIDS manual and across the entire DOTMLPF framework the Army's largest capability gap is in training.

Materiel

Even at the pinnacle of the Army's amphibious operations, the nation's premier land force depended on other services to assist with the execution of seizing a beachhead when tasked to do so. Whether it was the Navy's amphibious shipping providing troop and equipment transport or the Air Force providing close air support, the Army's materiel commitment to amphibious operations was limited in scope, with one exception. The one area where the Army played a leading role in providing amphibious materiel for the fight was during the actual

¹²⁴ JCIDS Manual, A-5.

¹²⁵ Marcus Weisgerber and Paul McLeary, "US Army Explores Sea-Basing Helos," *defensenews.com*, last modified April 13, 2014, accessed November 25, 2014, http://www.defensenews.com/article/20140413/DEFREG02/304130010/.

debarkation of troops from the Navy vessels to the beachhead in assault craft. The Army, during World War II, had 88,366 amphibious assault craft while the Navy possessed only 60,974.¹²⁶

The amount of amphibious materiel capability possessed by the Army today pales in comparison to the amount possessed in World War II. Though the Army does maintain an array of military watercraft, consisting of Logistical Support Vessels (LSV), LCU 2000 vessels, and small numbers of LCM-8 MOD I & II watercraft, the Army's vessels operate in support of logistical operations only. None of the Army's current inventory of amphibious materiel is designed to support an initial amphibious assault against an enemy held beach. If the Army were required to maneuver from the sea to seize an objective on shore in a combat scenario it would have to rely on the Gator Navy to get it there.¹²⁷ The Gator Navy is the US Navy's amphibious force responsible for the ship-to-shore movements of Marines during worldwide power projection missions consisting of crisis response, disaster relief, if needed, beach assaults against hostile shores.¹²⁸ On average, the amphibious shipping capability per numbered fleet is approximately twenty ships with a mix of landing ships, amphibious transports, and amphibious assault ships,

¹²⁶ David H. Grover, *U.S. Army Ships and Watercraft of World War II* (Annapolis, MD: Naval Institute Press, 1987), xii; The World War II Army's amphibious assault craft included, but was not limited to, Land Craft Mechanized (LCM), Land Ship/Craft Utility (LSU/LCU), Amphibious 2¹/₂-ton Truck (DUKW), Landing Vehicle Tracked (LVT), and Landing Vehicle Tanks (LVT(A)-1); Boose, 428-433.

¹²⁷ Department of the Army, "Product Director Army Watercraft Systems," *peocscss.army.mil*, last modified July 7, 2014, accessed on November 25, 2014, http://www.peocscss.army.mil/PdDAWS.html; Department of the Army, "Registry of Army Vessel Names," Office of the Chief of Transportation, Fort Lee, Virginia, March 10, 2011, http://www.transchool.lee.army.mil/ocot/Documents/Marine _Qualification/Vessel_ Registry_March_11.pdf.

¹²⁸ Department of the Navy, "Amphibious Force," *navy.mil*, last modified November 15, 2014, accessed November 28, 2014, http://www.navy.com/about/equipment/vessels/ amphibious.html.

not counting the LCUs and LCMs.¹²⁹ In total, with the Navy's five numbered surface fleets and the Fleet Forces Command, the Navy's amphibious capability is approximately three times larger than the Army's current amphibious force.¹³⁰ If the Navy's LCUs and LCMs are included in the comparison, the difference would be much more drastic.

The JCIDS manual defines materiel as "all items . . . necessary to equip, operate, maintain, and support joint military . . . for administrative or combat purposes."¹³¹ The Joint DOTmLPF-P process does not consider the acquisition of new materiel, while the Army does include the acquisition of new materiel in its DOTMLPF process. TRADOC Regulation 71-20 specifically states that teams responsible for capabilities development within the Army "document materiel requirements and support the development and production of systems, family of systems (FoS) and SoS [system of systems] when directed."¹³² With the drastic reduction of amphibious equipment from the mid-twentieth century to the present the Army obviously possesses a gap in its amphibious capabilities. The Army's materiel gap however is not the primary issue. Since amphibious operations have always been inherently joint operations, the Army has routinely relied on Sister Service's equipment and materiel to accomplish its ship-to-shore movements and will remain doing so in the future. The larger issue at hand is the fact that a significant gap in amphibious materiel exist across the Joint Force, specifically with the Marine Corps. The Marine Corps' amphibious assault vehicle (AAV) entered service in 1971 and

¹²⁹ Department of the Navy, "Commander NAVAL Surface Fore, U.S. Pacific Fleet: Ship Count," *publicnavvy.mil*, last modified November 15, 2014, accessed November 28, 2014, http://www.public.navy.mil/surfor/Pages/USNavyPacificFleetShipsbyClass.aspx

¹³⁰ Department of the Navy, "America*s Navy," *navy.mil*, last modified November 15, 2014, accessed on November 26, 2014, http://www.navy.mil/navydata/ships/amphibs/ amphib.asp.

¹³¹ JCIDS Manual, A-5.

¹³² TRADOC Regulation 71-20, 79.

underwent a major service life extension from 1983-1993.¹³³ The Marines have been seeking a replacement for the aging amphibious vehicle for almost twenty-five years and as recently as March 2014 had to put the search for a modern-day AAV on hold due to budget constraints.¹³⁴ The vehicle designated as a potential replacement for the AAV, the Amphibious Combat Vehicle (ACV), is not only is less amphibious as its predecessor but also holds less Marines. The troop transport compartment of the ACV holds just 13 Marines, compared to the 20 the AAV holds.¹³⁵ If the Marines do indeed ever procure the ACV and replace the AAV, their fleet of amphibious vehicles will have to increase by twenty-five to thirty percent. The analysis of the Marine Corps' amphibious materiel contributes to the problem before the Joint Force of whether to increase the capacity of the Marine Corps to conduct amphibious operations, or invest in restoring capability within the Army. The ultimate solution facing the Joint Force is beyond the scope of this study, which instead focuses on means for assessing and potentially increasing Army capabilities.

Leadership & Education

Per the definition of leadership and education annotated in the Joint Capabilities Integration Development System Manual the development of a leader is "the product of a

¹³³ Sydney J. Freedberg Jr, "Marines 2014: Year of Decision for Amphibious Combat Vehicle," *breakingdefense.com*, last modified January 9, 2014, accessed November 30, 2014, http://breakingdefense.com/2014/01/marines-2014-year-of-decision-for-amphibious-combat-vehicle/.

¹³⁴ Sydney J. Freedberg Jr, "Marines Budge Scramble: Commandant Resurrects MPC, ACV, In Limbo," *breakingdefense.com*, last modified February 17, 2014, accessed November 30, 2014, http://breakingdefense.com/2014/02/marines-budget-scramble-commandant-resurrects-mpc-acv-in-limbo/.

¹³⁵ Joe Gould, "Back to the Beach: US Marines Upgrading, Replacing Amphibs Under New Strategy," *defensenews.com*, last modified September 24, 2014, accessed January 10, 2015, http://archive.defensenews.com/article/20140924/DEFREG02/309240027/Back-Beach-US-Marines-Upgrading-Replacing-Amphibs-Under-New-Strategy.

learning continuum that comprises training, experience, education, and self-improvement" and the role of education is to complement the leader's training an experiences to "produce the most professionally competent individuals possible."¹³⁶ The TRADOC Regulation again relies on the JCIDS manual to define the leadership and education element of within the Army's DOTMLPF framework. Per the definition in the JCIDS manual, Army leaders have a significant gap in leadership and education when dealing with amphibious operations. As described above, the Army's gap in amphibious training is quite large. Decades have passed since the Army's last physical ship-to-shore exercise, in which Soldiers transitioned from ships, to landing craft, to assault craft. Since the early 1960s when the Army's last amphibious units, the Army's 2nd Engineer Amphibious Support Command, conducted waterborne operations, only a very small amount of simulation training, such as the Joint Forcible Entry Warfighting Experiment 2011, occurred. Simply put, Army leaders lack training in amphibious warfare.

Practical, hands-on, amphibious experience is virtually nonexistent within the ranks of Army leaders today. Most Army leaders' education surrounding amphibious warfare is limited as well. Case studies provided in Army schools, such as the Captains Career Course, Command General Staff College, and the Army War College may include analysis of waterborne operations such as the Gallipoli Campaign, the landings at Normandy, or the amphibious assault on Iwo Jima. However, the primary focus of the various case studies within the Army's education system is, for example, how leaders and planners incorporated the elements of operation art into the operation, and does not necessarily emphasize the specific planning elements required for the conduct of an amphibious assault.

The void of amphibious training, experience, and education within the leaders of the Army today may not be as significant as a capability gap as it initially appears. The flexibility and

¹³⁶ JCIDS Manual, A-5.

adaptability of today's Army leaders help reduce that gap. As Chief of Staff of the Army, General Raymond Odierno stated, when referring to the conduct of Army leaders engaged in the Global War on Terror, "for the past decade, our military has proven itself in what I consider to be the most difficult conditions this Nation has ever faced. Our leaders at every level have displayed unparalleled ingenuity, flexibility, and adaptability."¹³⁷ The Army Strategic Planning Guidance: 2014, echoes the same sentiment and highlights how "Soldiers and civilian leaders across the Total Army must . . . continue to foster adaptability and innovation in their formation" to succeed in the complex, uncertain, operational environment of the future.¹³⁸ During the early phases of the Global War on Terror, the majority of Army leaders lacked the training, experience, and education surrounding counterinsurgency operations, but yet still found themselves engaged in an unconventional conflict. The result was that young, innovative, and flexible Army leaders adapted and successfully educated themselves on counterinsurgency operations in a dynamic, complex, open battlefield. Over the duration of war, Army leaders' mindset evolved from thinking only in terms of conventional warfare to incorporating aspects required to succeed against a counterinsurgency threat. In the future, when the American nation needs the Army to execute a ship-to-shore operation, the leadership within the Army, as long as it retains it adaptable mindset it has developed over the last decade of war, will not act as a stumbling block and prevent successful execution of the operation. Army leaders have adapted in the past to successfully face a new type of warfare and they can continue to adapt if needed. The lack of training poses a far greater capability gap then the abilities of Army leaders.

¹³⁷ Raymond Odierno, "A Message from the Chief of Staff," Echoes: The Newsletter for Retired Soldiers, Surviving Spouses & Families, (January-April 2012): 1, accessed December 6, 2014, http://soldierforlife.army.mil/sites/default/files/echoes_issues/Army_Echoes_2012_Jan.pdf.

¹³⁸ Army Strategic Planning Guidance, 1.

Personnel

Though Army leaders are able minded individuals capable of adjusting to their new surroundings, the personnel component of the Army is not necessarily as capable of quickly adapting. However, the Army may not need the ability to quickly change its personnel structure. TRADOC Regulation 71-20 only describes the personnel element of DOTMLPF as identifying which organization within the Army is responsible for "developing the best personnel lifecycle policy for Warfighters and the Army."¹³⁹ The Army relies on the Joint Force to actually define the term personnel within the DOTMLPF framework. The JCIDS manual describes personnel within the DOTmLPF-P framework as a component that primarily "ensures that qualified personnel exist to support joint capability requirements."¹⁴⁰ In this case, ensuring qualified personnel exist to support amphibious operations against an enemy held shoreline. The task organization of an amphibious force is naturally one of the most jointly integrated operation. The composition of an amphibious force consists of Navy forces, a Landing Force, and what JP 3-02 calls "other forces."¹⁴¹ The naval force consists of everything from Amphibious Ready Groups, to surface fire support groups, to the naval beach group responsible for providing ship-to-shore traffic control.¹⁴² The landing force, that "may be composed of United States Marine Corps and United States Army forces" consists of "combat personnel and any of its combat support and combat service support units."¹⁴³ JP 3-02 labels the remaining personnel as "other forces"

¹⁴² Ibid.

¹⁴³ Ibid., II-7.

¹³⁹ TRADOC Regulation 71-20, 77.

¹⁴⁰ JCIDS Manual, A-5.

¹⁴¹ JP 3-02, II-6-II-7.

because these personnel support, but are not part of, the amphibious force. These personnel may include an advanced amphibious force, such as Special Operations Forces, assigned to shape the amphibious objective area before the main landing force. Air Force operations fall under "other forces" as well throughout the duration of an amphibious operation when they strike targets in advance of the landing force coming ashore.¹⁴⁴

The question that arises is does the Army even need qualified personnel to conduct joint amphibious operations or can it rely on the other Services? In some regards, the answer to the first question is no. The Navy is more than capable and has the personnel with the requisite training to man its Gator Navy components within the larger amphibious force. The same applies to the Air Force as well. The Air Force has the correct trained and qualified to fly aircraft and strike pre-designated targets within the amphibious operations area. The specific role Army personnel would play within the amphibious force would be to ensure that qualified personnel exist within the landing force component. However, because the Army does not possess any amphibious assault vehicles, there is no need for the development of a military occupational specialty (MOS) similar to the Marines 1833 MOS, AAV Crewman.¹⁴⁵ Only if the Army made the decision to revitalized its fleet of amphibious assault vehicles, it would then also have to create a MOS to "ensures that qualified personnel exist" to man those vehicles.¹⁴⁶ If the Army never develops its own AAV, and is called upon by the nation to participate in a joint amphibious operation, it will have to rely completely on the Navy and the Marine Corps personnel to operate the requisite equipment required that enables maneuver from the sea.

¹⁴⁴ Ibid., II-10.

¹⁴⁵ Department of the Navy, Headquarters United States Marine Corps, "AAV Crewman," *marines.com*, last modified January 5, 2015, accessed January 10, 2015, http://www.marines.com/being-a-marine/roles-in-the-corps/ground-combat-element/aavs.

¹⁴⁶ JCIDS Manual, A-5.

Facilities

Amphibious operations require not only a unique equipment sets and trained personnel to handle that equipment, but also a very specific type of facility to conduct training. The Army also refers to the Joint DOTmLPF-P framework for its understanding of the facilities requirement. The JCIDS manual defines facilities as "real property consisting of one or more of the following: buildings, structures, utility systems, associated roads and other pavements, and underlying land."¹⁴⁷ The manual then defines key facilities "as command installations and industrial facilities of primary importance to the support of military operations."¹⁴⁸ The current gap that exists within the Army today is that the Army lacks the proper installations required for amphibious training. The unique facilities required are those that include a costal shoreline capable of supporting beach landings, and currently only one active Army installation provides that criteria today. Ironically, it is the same installation the Army's last amphibious unit, the 2nd Engineer Amphibious Support Command, chose to conduct its amphibious training. Joint Expeditionary Base East, formally known as Fort Story, located in Virginia on the Atlantic Ocean provides the required geographical layout that supports amphibious operations. Fort Story's three mile long shoreline and adjacent training land meet all the criteria for a proper facility as outlined in the JCIDS manual.¹⁴⁹ No other active Army post provides adequate facilities, mainly the underlying land, required to support training on amphibious warfare.

148 Ibid.

¹⁴⁷ Ibid., A-5, A-6.

¹⁴⁹ "Joint Expeditionary Base Little Creek-Fort Story," *cnic.navy.mil*, last modified December 18, 2014, accessed January 10, 2015, http://www.cnic.navy.mil/regions/cnrma/ installations/jeb_little_creek_fort_story.html.

The fact that amphibious operations are joint operations renders the Army's facility gap null and void. The Marine Corps alone has at least five separate facilities or installations situated on either the Atlantic or Pacific coast that are capable to support amphibious training.¹⁵⁰ The Navy has over two dozen facilities situation all around the coast of the United States.¹⁵¹ Even the Air Force has facilities that meet the requirement outlined within the JCIDS definition of having real property to support military operations. Vandenberg Air Base alone, located on the coast of central California, has over forty-four miles of coastline running along the Pacific Ocean.¹⁵² If the Army finds itself in a situation where it needs to begin training an Army brigade or battalion sized unit on amphibious warfare, a Marine facility will be the likely location of the training. Camp Lejeune, the East Coast Training Center, and Camp Pendleton, the West Coast Training Center, are the Marine Corps premiere amphibious training facilities.

Policy

The Army's DOTMLPF process does not focus on policy. However, because national policy has a significant impact on whether or not the Army should possess an amphibious capability, a quick analysis was included in this study. The JCIDS manual describes the policy component off the DOTmLPF-P framework as "any DOD, interagency, or international policy issues that may prevent effective implementation of changes in the other seven DOTmLPF-P

¹⁵⁰ US Department of Defense, "Military Installations," *militaryinstallations.dod.mil*, last modified May 2, 2014, accessed January 10, 2015, http://www.militaryinstallations.dod.mil/ MOS/f?p=MI:ENTRY:0.

¹⁵¹ Ibid.

¹⁵² Department of Defense, "Military Installations: Vandenberg AFB, California," *militaryinstallations.dod.mil*, last modified May 2, 2014, accessed January 10, 2015, http://www.militaryinstallations.dod.mil/MOS/f?p=132:CONTENT:0::NO::P4_INST_ID,P4_INST_TYPE:805,INSTALLATION.

elemental areas."¹⁵³ No DoD, interagency, or international policy currently exist that prohibits or prevents the Army from training on or participating in amphibious operations as part of a larger force. The exact opposite is the case. The strategic guidance and Joint concepts show that DoD and the Joint Force expect the Army to possess an amphibious capability.

Conclusion

The current organizational structure of the US Military reflects the common misperception that the Marine Corps, and only the Marine Corps, is the only DoD force required and capable of conducting amphibious operations. However, the commonly accepted belief is erroneous. The Army, though it is not currently capable of conducting amphibious operations, is expected to possess an amphibious capability and to cooperate in amphibious operations as part of a larger Joint Force. Analysis conducted on documents from the strategic level down to the Joint doctrine revealed the common threads of projecting power and deterring and defeating aggression that support the notion that the Army must possess a capability that enables it to maneuver from the sea to the shore in cooperation with a larger Joint landing force aimed at seizing a beachhead from a hostile force. The nation's current global focus on the Asian-Pacific region, the proliferation of A2/AD capabilities within the future operational environment, the limited capacities of the Marine Corps in the Pacific, and the Army's significant history with amphibious operations, all support the view that the Army should possess amphibious capabilities as well.

DOTMLPF analysis of the Army's current amphibious capability demonstrated that in most areas, the gaps that exist are hardly insurmountable. In the case of amphibious doctrine, the gap is insignificant. The Army has almost always relied on, and continues to rely on the Marine

¹⁵³ JCIDS Manual, A-6.

Corps for the development amphibious doctrine. If called upon in the future to maneuver from the sea to shore, the Army will turn to the Marine Corps and Joint Publications to establish its fundamental principles by which to guide its actions in support of a unified mission.¹⁵⁴

The Army's current modular organizational design presents no significant capability gap either. The Army designed and developed its BCT structure so tailorable units could integrate into a larger Joint Force as needed.¹⁵⁵ The FMI 3-0.1: *The Modular Force* even provides the example of a Marine Expeditionary Force assuming tactical control of an Army brigade for the execution of an amphibious operation.¹⁵⁶ The Army's current organization creates no capability gap. The Army's modularity actually does the opposite and allows for an Army unit to integrate into a larger Joint Force "to accomplish a common mission."¹⁵⁷

Unlike doctrine and organization, the lack of amphibious training across the Army does create a significant capability gap. The Army's last physical training exercise on amphibious operations occurred in 1964 and since then it has not trained on conducting amphibious landings.¹⁵⁸ Before the Army answers the call to participate in a larger Joint amphibious operation, it will first have to train a portion of its force on ship-to-shore operations. However, this training gap is one that could be overcome by routine participation in joint amphibious training or planning exercises.

The lack of amphibious materiel within the Army may or may not cause a gap in its ability to participate in an amphibious assault. It depends on how the Army decides to evolve its

¹⁵⁷ JCIDS Manual, A-5.

¹⁵⁸ "Lineage and Honors Information."

¹⁵⁴ JP 1-02, 78.

¹⁵⁵ Donnelly, iii.

¹⁵⁶ FMI 3-0.1, 1-22.

amphibious capability in the future. If the Army is required to create a standing amphibious unit, it will need amphibious assault vehicles to support such a requirement. On the other hand, if the Army is tasked only to be prepared to conduct amphibious operations in conjunction with Marine forces, relying on the Corps and its AAVs for transport from ship-to-shore, it will not need to possess its own amphibious vehicles and the lack of amphibious materiel will not be an issue. Though the Army has organized special amphibious organizations in the past, it has also trained and employed regular ground forces in an amphibious role. Given the current fiscal constraints on the defense budget, the Defense Department must decide whether the Army's role in amphibious operations should be complementary or as reinforcing effort to existing Marine capacity.

Within the realm of leadership and education, the Army's amphibious capability presents no deficiency or gap. Even though Army leaders lack the amphibious "learning continuum that comprises training, experience, and education," the flexibility, adaptability, and ingenuity of Army leaders today enable those same leaders to overcome the lack of hands on amphibious training.¹⁵⁹ It would benefit the Army to expose and train leaders, especially those who may one day find themselves as part of an amphibious landing force—infantry, engineer, or artillery officers— to amphibious operations before they have to execute an amphibious mission. Just as the Engineer School incorporated Operation SUNSET into its curriculum, the Army should incorporate amphibious planning exercise into the different levels of the professional military education system.

As with materiel requirements, the significance of any gap existing in the area of personnel can only be determined by type of solution required by the Department of Defense. With amphibious operations being a Joint Force operation, personnel from every Service "ensures that qualified personnel exist to support joint capability requirements" during the execution of an

¹⁵⁹ JCIDS Manual, A-5.

amphibious mission.¹⁶⁰ Only if the Army maintained its own fleet of amphibious assault vehicles, would it need to develop military occupational specialties associated with those equipment requirements.

The Army does have a gap in its amphibious capabilities when dealing with Army specific facilities. Only the one active Army installation, Fort Story, has the requisite geographical laydown capable of supporting amphibious training. However, the gap is not a significant one that impacts the Army's ability to train on ship-to-shore combat operations. When the nation directs the Army to participate in an amphibious operation, the probability of the training occurring at a Marine base, specifically located on the shoreline to support amphibious training, is much greater than the training occurring on an Army installation.

No national or DoD policy prohibit the Army from participating in amphibious operations. In fact, the strategic guidance, DoD guidance, and Joint concepts all expect the Army to participate and cooperate in amphibious operations as part of a larger Joint Force

The author does not suggested that the Army would ever subsume the Marine Corps' mission of amphibious operations, nor should it. However, based on the analysis of strategic documents, Joint Capstone Concepts, the Army's Strategic Planning Guidance, and our current understanding of the future operational environment, the Army should prepare to participate in amphibious operations as part of a larger Joint Force when the nation calls upon it to do so. To be able to accomplish its clear and direct amphibious mission, the Army should maintain a certain level of proficiency on amphibious operations. The Army does not need to possess its own permanent amphibious units with amphibious equipment. However, the Army should begin to develop a training curriculum focused on the conduct of amphibious warfare. The Army should develop a training program where BCTs rotate through a regimented training program in

¹⁶⁰ Ibid.

partnership with the Marine Corps. The ultimate goal of the joint training and planning exercises should be to enable the Army to successfully accomplish its amphibious mission, a task it cannot currently achieve.

Bibliography

- Adamson, Timothy, Michael E. Brown, Mike M. Mochizuki, Deepa Ollappaly, and Robert G. Sutter. "Balancing Acts: The U.S. Rebalance and the Asia-Pacific Stability" (George Washington University, August 2013). http://www.gwu.edu/~sigur/assets/docs/ BalancingActs_Compiled1.pdf.
- Armstrong, Paul. "Vietnamese boat sinks after collision with Chinese vessel in disputed waters." cnn.com. Last modified on May 27, 2014. Accessed October 18, 2014. http://www.cnn.com/2014/05/27/world/asia/vietnam-china-paracels-fishing-boatcollision/.
- Becker, Marshall. *The Amphibious Training Center*. Study No. 22. Historical Section: The Army Ground Forces. Washington DC: Government Printing Office, 1945.
- Betts, Richard, and Thomas J. Christensen. "China: Getting the Questions Right." *National Interest* (Winter 2000-2001). Accessed November 2, 2014. http://nationalinterest.org/article/china-getting-the-questions-right-408.
- Boose, Donald W. Over the Beach: US Army Amphibious Operations in the Korean War. Fort Leavenworth: Combat Studies Institute Press, 2008.
- Bower, Ernest. "China's 'aggressiveness' is drawing ASEAN closer." *dw.de*. Last modified May 13, 2014. Accessed January 6, 2015. http://www.cnn.com/2014/05/27/world/ asia/vietnam-china-paracels-fishing-boat-collision/.
- Clinton, Hillary. "America's Pacific Century." *Foreign Policy*. October 11, 2011. Accessed October 1, 2014. http://www.foreignpolicy.com/articles/2011/10/11/americas_ pacificcentury#sthash.A9kEx9rp .uavqlJyV.dpbs.
- Council on Foreign Relations. "China's Maritime Disputes." *cfr.org*. Last modified December 1, 2013. Accessed January 31, 2015. http://www.cfr.org/asia-and-pacific/chinas-maritime-disputes/p31345#!/?cid=otr-marketing_use-china_sea_InfoGuide#contested-waters.
- Cronk, Terri Moon. "Marine Corps Returns to its Amphibious 'Wheelhouse." *Department of defensenews.com.* Last modified June 27, 2014. Accessed November 14, 2014. http://www.defense.gov/news/newsarticle.aspx?id=122564.
- Department of the Army. Army Doctrine Publication 1: *The Army*. Washington DC: Government Printing Office, 2012.
- _____. Army Doctrine Reference Publication 1-02: *Terms and Military Symbols*. Washington DC: Government Printing Office, 2013.
- _____. Army Doctrine Reference Publication 3-0: *Unified Land Operations*. Washington, DC: Government Printing Office, 2012.
- _____. Army Strategic Planning Guidance 2014. Washington DC: Government Printing Office, 2014.

. Field Manual 5-144: Engineer Amphibious Units. Washington DC: Government Printing Office, 1966. . Field Manual 31-12: Army Forces in Amphibious Operations (The Army Landing Force). Washington DC: Government Printing Office, 1961. . Field Manual-Interim 3-0.1: The Modular Force. Washington DC: Government Printing Office, 2008. . "Lineage and Honors Information." *history.army.mil*. Last modified October 17, 2011. Accessed November 25, 2014. http://www.history.army.mil/html/forcestruc/lineages/ branches /eng/0002enbde.htm. "Mission Command Battle Lab supports joint experiment." army.mil, Last modified February 17, 2011. Accessed November 25, 2014. http://www.army.mil/article/52098/ Mission_Command_Battle_Lab_supports_joint_experiment/. ."Product Director Army Watercraft Systems." peocscss.army.mil. Last modified July 7, 2014. Accessed November 25, 2014. http://www.peocscss.army.mil/PdDAWS.html. "Registry of Army Vessel Names." Office of the Chief of Transportation, Fort Lee, Virginia. March 10, 2011. Accessed November 25, 2014. http://www.transchool.lee. army.mil/ocot/Documents/Marine Qualification/Vessel Registry March 11.pdf. _. TRADOC Regulation 71-20: Concept Development, Capabilities Determination, and Capabilities Integration. Washington DC: Government Printing Office, 2013. . "What is DOTMLPF?" Army Capabilities Integration Center. Last modified November 16, 2014. Accessed November 18, 2014. http://www.arcic.army.mil/AboutARCIC /dotmlpf.aspx. Department of the Navy. "America*s Navy." navy.mil, Last modified November 15, 2014. Accessed November 26, 2014. http://www.navy.mil/navydata/ships/amphibs/ amphib.asp. "Amphibious Force." navy.mil, Last modified November 15, 2014. Accessed November 28, 2014. http://www.navy.com/about/equipment/vessels/amphibious.html. . "Commander NAVAL Surface Fore, U.S. Pacific Fleet: Ship Count." publicnavvy.mil. Last modified November 15, 2014. Accessed November 28, 2014. http://www.public.navy.mil/surfor/Pages/USNavyPacificFleetShipsbyClass.aspx. . Fleet Marine Force Reference Publication 12-46: Advanced Base Operations in Micronesia. Washington DC: Government Printing Office, 1921. . Headquarters United States Marine Corps. "AAV Crewman." marines.com. Last modified January 5, 2015. Accessed January 10, 2015. http://www.marines.com/beinga-marine/roles-in-the-corps/ground-combat-element/aavs.

- _____. Headquarters United States Marine Corps. *Expeditionary Force 21: FORWARD and READY: Now and in the Future*. Washington DC: Government Printing Office, 2014.
- _____. Headquarters United States Marine Corps. *Marine Corps Service Campaign Plan 2014-2022*. Washington DC: Government Printing Office, 2013.
- _____. Headquarters United States Marine Corps. Marine Corps Doctrinal Publication 1-0: *Marine Corps Operations*. Washington DC: Government Printing Office, 2001.
- _____. Headquarters United States Marine Corps. Marine Corps Doctrinal Publication 3-0: *Expeditionary Operations*. Washington DC: Government Printing Office, 1998.

______. "Joint Expeditionary Base Little Creek-Fort Story." *cnic.navy.mil*. Last modified December 18, 2014. Accessed January 10, 2015. http://www.cnic.navy.mil/regions/cnrma/installations/jeb_little_creek_fort_story.html.

- Donnelly, William. *Transforming an Army at War: Designing the Modular Force, 1991-2005.* Washington DC: Center of Military History, 2007.
- Ear, Jessica. "Education Crucial to Future U.S. HADR Missions." apcss.org. Last modified March, 13, 2014. Accessed February 7, 2015. http://www.apcss.org/education-crucialto-future-u-s-hadr-missions/.
- Forrestal, James. Office of the Secretary of Defense. "Functions of the Armed Forces and the Joint Chiefs of Staff." April 21, 1948. Accessed on November 19, 2014. http://cgsc.cdmhost.com/cdm/ref/collection/p4013coll11/id/729.
- Freedberg, Sydney J. Jr. "Marines 2014: Year of Decision for Amphibious Combat Vehicle." breakingdefense.com, Last modified January 9, 2014. Accessed November 30, 2014. http://breakingdefense.com/2014/01/marines-2014-year-of-decision-for-amphibiouscombat-vehicle/.
- ______. "Marines Budge Scramble: Commandant Resurrects MPC, ACV, In Limbo." breakingdefense.com. Last modified February 17, 2014. Accessed November 30, 2014. http://breakingdefense.com/2014/02/marines-budget-scramble-commandant-resurrectsmpc-acv-in-limbo/.
- Glueck, Kenneth. "*III Marine Expeditionary Force: 'Tip of the Spear' Command Brief.*" Lecture, Marine Command and Staff College, Quantico, VA, May 1, 2013.
- Gould, Joe. "Back to the Beach: US Marines Upgrading, Replacing Amphibs Under New Strategy." *defensenews.com*. Last modified September 24, 2014. Accessed January 10, 2015. http://archive.defensenews.com/article/20140924/DEFREG02/309240027/Back-Beach-US-Marines-Upgrading-Replacing-Amphibs-Under-New-Strategy.
- Grover, David H. U.S. Army Ships and Watercraft of World War II. Annapolis, MD: Naval Institute Press, 1987.
- Heavey, William. *Down Ramp: The Story of the Army Amphibian Engineers*. Nashville, TN: The Battery Press, 1988.

- Historical Summary. June 1942 through December 1962, Headquarters, 2d Engineer Amphibious Support Command, April 2, 1965. Quoted in Boose, Donald W. Over the Beach: US Army Amphibious Operations in the Korean War. Fort Leavenworth: Combat Studies Institute Press, 2008.
- Johnston, Alastair. "Is China a Status Quo Power?" *International Security* 27, no. 4 (Spring 2003). Accessed January 6, 2015. http://belfercenter.ksg.harvard.edu/files/johnston _spring_2003.pdf.
- Kennedy, Paul. Engineers of Victory: The Problem Solvers Who turned the Tide in the Second World War. New York: Random House Publishing, 2013.
- Krepinevich, Andrew and Barry Watts. "Meeting the Anti-Access and Area-Denial Challenge." Center for Strategic and Budgetary Assessments. Washington DC: Government Printing Office, 2003.
- LaGrone, Sam. "Pentagon Drops Air Sea Battle Name, Concept Lives On." news.usni.org. Last modified January 20, 2015. Accessed January 30, 2015. http://news.usni.org/2015/01 /20/ pentagon-drops-air-sea-battle-name-concept-lives.
- Mearsheimer, John. "The Gathering Storm: China's Challenge to US Power in Asia," *Chinese Journal of International Politics* 3, no. 4 (2010): 381-396. Accessed September 29, 2014. http://cjip.oxfordjournals.org/content/3/4/381.extract#.

Miller, Edward S. War Plan Orange. Annapolis, MD: United States Naval Institute, 1991.

- Moroney, Jennifer D. P., Stephanie Pezard, Laurel E. Miller, Jeffrey Engstrom, and Abby Doll. "Lessons from Department of Defense Disaster Relief Efforts in the Asian-Pacific Region." *rand.org*. 2013. Accessed February 7, 2015. http://www.rand.org/content /dam/rand/pubs/research_reports/RR100/RR146/RAND_RR146.pdf.
- Morton, Charles G. "Landing in Force." *Infantry Journal* XVI, no. 12 (June 1920): 981-988. Accessed January 3, 2015. https://books.google.com/books?id=edg2AQAAMAAJ.
- Obama, Barack. "Remarks by President Obama to the Australian Parliament." *whitehouse.gov*. Last modified November 17, 2011. Accessed October 14, 2014. http://www.whitehouse.gov/the-press-office/2011/11/17/remarks-president-obamaaustralian-parliament.
- Odierno, Raymond, "A Message from the Chief of Staff," *Echoes: The Newsletter for Retired Soldiers, Surviving Spouses & Families*, (January-April 2012). Accessed December 6, 2014. http://soldierforlife.army.mil/sites/default/files/echoes_issues/Army_Echoes _2012_Jan.pdf.
- Office of the United States Trade Representative. "Trans-Pacific Partnership." *ustr.gov.* Last modified November 10 2014. Accessed November 18, 2014. http://www.ustr.gov/tpp/Summary-of-US-objectives.

- Russell, Daniel R. Assistant Secretary, Bureau of East Asian and Pacific Affairs. Testifying on Maritime Disputes in East Asia, on February 5, 2014, before the House Committee on Foreign Affairs Subcommittee on Asia and the Pacific. *state.gov*. Washington DC. Accessed January 31, 2015. http://www.state.gov/p/eap/rls/rm/2014/02/221293.htm.
- United Nations, Economic and Social Commission for Asia and the Pacific. "*Statistical Yearbook for Asia and the Pacific: 2013.*" October 1, 2013. Accessed December 23, 2014. http://www.unescap.org/stat/data/syb2013/escap-syb2013.pdf.
- . "Half the Global Population Will Live In Cities By End Of This Year, Predicts UN." *un.org.* Last modified February 26, 2008. Accessed November 4, 2014. http://www.un.org/apps/news/story.asp?NewsID=25762.
- US Army Engineer School. *Operation SUNSET*. USAR ADT Course S.122-117. Fort Belvoir, VA: The Department of Engineering and Military Science, US Army Engineer School, June 1, 1964. Quoted in Boose, Donald W. *Over the Beach: US Army Amphibious Operations in the Korean War*. Fort Leavenworth: Combat Studies Institute Press, 2008.
- US Department of Defense. Air-Sea Battle Office. *Air-Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges*. Washington DC: Government Printing Office, 2013.
 - ____. *Chairman of the Joint Chiefs of Staff Instruction: 3170.01H.* Washington DC: Government Printing Office, 2012.
- _____. Directive Number 5100.01. "Functions of the Department of Defense and Its Major Components." December 21, 2010. Accessed November 19, 2014. http://www.dtic.mil/whs/directives/corres/pdf/510001p.pdf.
- _____. Joint Publication: *Capstone Concept for Joint Operations: Joint Forces* 2020. Washington DC: Government Printing Office, 2012.
- _____. Joint Publication: *Joint Capabilities Integration and Development System Manual*. Washington DC: Government Printing Office, 2012.
- _____. Joint Publication: *Joint Concept for Entry Operations*. Washington DC: Government Printing Office, 2014.
- _____. Joint Publication: *Joint Operational Access Concept*. Washington DC: Government Printing Office, 2012.
- _____. Joint Publication 1-02: Department of Defense Dictionary of Military and Associated Terms. Washington DC: Government Printing Office, 2014.
- _____. Joint Publication 3-02: *Amphibious Operations*. Washington DC: Government Printing Office, 2014.
- _____. Joint Publication 4-01.6: *Joint Tactics, Techniques, and Procedures for Joint Logistics Over-the-Shore.* Washington DC: Government Printing Office, 2013.

- ______. "Military Installations." militaryinstallations.dod.mil. Last modified May 2, 2014. Accessed January 10, 2015. http://www.militaryinstallations.dod.mil/ MOS/f?p=MI:ENTRY:0.
 ______. "Military Installations: Vandenberg AFB, California." militaryinstallations.dod.mil. Last modified May 2, 2014. Accessed January 10, 2015. http://www.militaryinstallations.dod.mil/MOS/f?p=132:CONTENT:0::NO::P4_INST_I D,P4_INST_TYPE:805,INSTALLATION.
 ______. Quadrennial Defense Review. Washington DC: Government Printing Office, 2014.
 ______. Sustaining U.S. Global Leadership: Priorities for 21st Century Defense. Washington DC: Government Printing Office, 2012.
 US Department of State. "U.S. Collective Defense Arrangements." state.gov. Last modified March 5, 2013. Accessed November 5, 2014. http://www.state.gov/s/l/treaty/
- US Energy Information Administration. "China." *eia.gov*. Last modified February 4, 2014. Accessed November 17, 2014. http://www.eia.gov/countries/cab.cfm?fips=ch.

collectivedefense/.

- Waldron, Arthur. Quoted in Joseph S. Nye. "China's Re-emergence and the Future of the Asian-Pacific." Survival 39, no. 4, (December 1997): 65-79. Accessed November 5, 2014. http://www.tandfonline.com/doi/abs/10.1080/00396339708442944?journalCode=tsur20 #.
- Weisgerber, Marcus and Paul McLeary. "US Army Explores Sea-Basing Helos." *defensenews.com.* Last modified April 13, 2014. Accessed November 25, 2014. http://www.defensenews.com/article/20140413/DEFREG02/304130010/.
- White House. *National Security Strategy*. Report. Washington DC: U.S. Government Printing Office, 2015.