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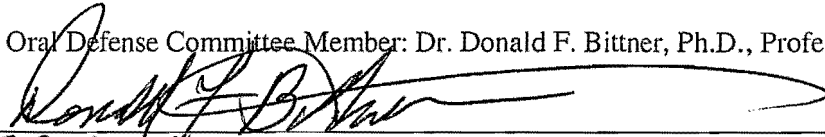
**MODERN AMPHIBIOUS OPERATIONS:
WHY THE UNITED STATES MUST MAINTAIN A JOINT AMPHIBIOUS FORCIBLE
ENTRY CAPABILITY**

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

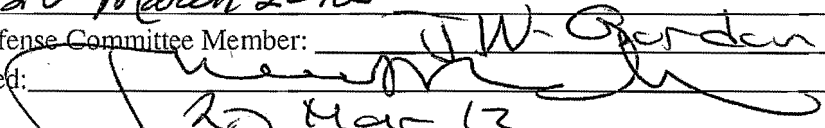
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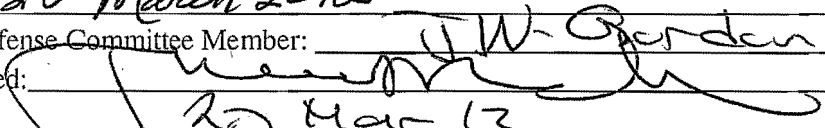
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Mentor and Oral Defense Committee Member: Dr. Donald F. Bittner, Ph.D., Professor of History

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Executive Summary

Title: Modern Amphibious Operations: Why the United States Must Maintain Amphibious Forcible Entry Capabilities.

Author: Major Samuel L. Meyer, United States Marine Corps

Thesis: Joint Amphibious Forcible Entry Operations (JAFEO) are a requirement given national strategic guidance and the future threats faced by the United States.

Discussion:

Given current budget constraints and the end of the conflict in Iraq, the US is at a cross roads. The nation faces a debt crisis and is in need of a major budget and spending overhaul, yet at the same time the threats to the US are as numerous and nebulous as ever. The lack of a clearly identified enemy makes developing a defense strategy all the more difficult. Many questions come to mind: How can the US rapidly defend against many unknowns? Who might we fight? Where will we fight? What will the character of next conflict be like? How do we best prepare the US military to meet those future challenges?

In an environment in where China is rapidly expanding, Iran is developing nuclear capability and threatening to close down key maritime trade access points, and Africa is in turmoil, the US finds its global access and freedom of movement threatened. To counter such challenges, US forces must be prepared to maintain access across the global domains of air, land, sea, space and cyber, as defined in its national strategies. The foes that may challenge this access only continue to increase in complexity and capability. They represent a dilemma for the US people as the nation moves away from the wars in Iraq and Afghanistan.

Joint amphibious forces represent a solution to this complicated national security scene. These forces are not solely comprised of the US Marine Corps. The US joint military forces combine inter-dependant relationships and responsibilities that form a synergistic "Joint Air Ground Task Force" similar to a USMC Marine Air Ground Task Force (MAGTF). The Capstone Concept for Joint Operations (CCJO) Version 3.0, signed on 15 January 2009 by the Chairman of the Joint Chiefs of Staff, Admiral Michael Mullin, explains the joint force purpose. The CCJO explains the joint force must operate in an uncertain, complex, and changing future, environment characterized by persistent conflict. Forward deployed joint amphibious forces can accomplish these goals in this difficult environment, while protecting US interest abroad, assisting US Allies, and building international partnerships. The joint amphibious force must also maintain a forcible entry capability; however, to deter future enemies and guarantee US access to those regions deemed vital to national interests. Capable joint amphibious forcible entry forces, capable of acting at a moment's notice, and ensure freedom of movement and required access; they buy the nation time and space to react, using diplomacy or force as required by any particular situation.

Conclusion: US national strategies and potential future threats to US national security demonstrate a need that is best satisfied by joint amphibious forces, to include forcible entry capability, as part of the overall US Joint Force in support of US national defense.

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Preface

As the end nears with conflicts in Iraq and Afghanistan, the US looks to its next security challenge with an unbalanced budget and unclear threats. Who and where will the US face its next challenge? What future capabilities will be needed? These questions must be boldly addressed and embraced as the nation's leaders labor to answer them in the best possible manner.

Much has been written on amphibious forcible entry forces and the United States Marine Corps; much of this subject matter is not groundbreaking. The value of this paper is that the author has compiled many sources to form a holistic argument in a single source, beginning at the strategic level, with regard to the topic that justifies its need while addressing potential future threats. Future forces that can implement and support the national strategies must be utilitarian, flexible, scalable, and capable of rapid response. Joint amphibious forces with forcible entry capabilities meet these requirements. Yet, given the last decade, US proficiency in this regime has waned.

While this topic has been discussed in the *Marine Corps Gazette* since 1917 to the current issue in March 2012, many such articles were excluded due to more current, primary sources available. For contemporary data on the topic, the US Marine Corps Commandant's "Ellis Group" was consulted. The Ellis Group represents the cutting edge for research on amphibious capability and development. Senior Marine combat leaders, including those involved in support of Afghanistan in 2010 and the Libyan crisis in early 2011, were used.

Marine and Navy leaders agree that both services have lost much in the past ten years with regards to amphibious proficiency. The *Marine Corps Times* (20 February 2012) covered the largest amphibious exercise in over ten years, Exercise Bold Alligator 2012. Rear Admiral Kevin Scott, Commander of Expeditionary Strike Group 2 said that coordination of the US Naval services needed improvement because the USMC and USN, "warfare communities that have lost touch." None the less, **this paper argues for holistic use of the US military and joint amphibious forcible entry to achieve goals as set by national policy.**

This paper is current as of mid-March 2012; priorities may change. The USMC Commandant, General James Amos, demonstrates the struggle for amphibious in the current issues of *Joint Forces Quarterly* and the *Marine Corps Times* (19 March 2012). He notes that a Marine Expeditionary Brigade (MEB) requires 17 amphibious ships to support a full deployment and the US Navy only has 29 in commission; thus, the Navy cannot move two MEBs simultaneously as the Marine Corps requires. This deficiency displays the ongoing problems and differing views that exist that must be resolved as amphibious future strategies evolve.

Defense budget cuts revealed in June or July of 2012 will further shape or alter the scope of arguments discussed within. A future 100 page report will give recommendations for future joint amphibious issues in late March 2012 (Ellis Group). An Amphibious Operation Conference in Washington, DC, 12-13 May 2012 will further develop this paper's scope. Specific topics of the conference include: requirements for the next USMC amphibious vehicle, Navy/USMC requirements and doctrine for a more robust amphibious capability, "Air-Sea Battle" future requirements, a status update on the Navy's Ship-to-Shore Connector, riverine/brown water operations, and mine warfare, and contested maneuverability.

This thesis would not be possible without my discussions with Colonels Christopher Naler, Michael Groen, Mark Desins, and Christian Cabaniss. Their professional rigor is driving the future of joint amphibious operations. Special thanks to Dr. Donald Bittner and LtCol Shawn Callahan for holding my feet to the fire at the Command and Staff College, and Col James Smoots, USMC (Ret.), who gave me reasons to think about things other than flying a Cobra. My father and mother, Bill and Elizabeth Meyer, deserve most of the credit for teaching me how to treat others and driving me to "get a 110%." My gratitude goes to my brothers and best friends, Benjamin and Billy Meyer, who love me today despite all the things a big brother did. And finally, to Dr. Anna Campbell, who always reminded me that this "isn't as hard as vet school" and whom I will make sure fills the spot beside me, finally getting a doctor into the Meyer family.

Foreword

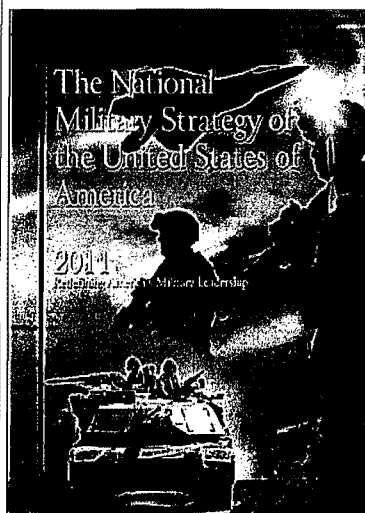
The amphibious operations of our grandfathers have long since passed; the days of soldiers storming the beach as in the movie “Saving Private Ryan” are gone. The stereotype that all amphibious operations are opposed beach assaults, like those executed at Tarawa by the US Marines in World War II, are simply no longer accurate. While launching waves of open wooden boats against hostile beaches was sound given 1940s technology, modern amphibious warfare has changed despite persisting visions of John Wayne in the “Sands of Iwo Jima.” *Old paradigms like these are not only incorrect today, but serve to mislead national policy makers and the American public when considering the importance of amphibious operations to future national security strategies.*

Current amphibious operations have evolved since World War II, over the Cold War, and into the 21st century. These now encompass the full spectrum of military operations required of the US military by US national strategies. Amphibious forces evolved with the advent of combined landing craft (the amphibious tractor in conjunction with traditional landing boats), and helicopters via airborne assault. With modern advances, amphibious maneuver is described by concepts such as “Operational Maneuver From the Sea” (OMFTS) and “Ship to Objective Maneuver” (STOM). These concepts focus not just on the beach but on “littoral maneuver” as a whole. The littorals comprise the environment that not only includes the water and the beach, but also the inland terrain that amphibious forces can readily influence.

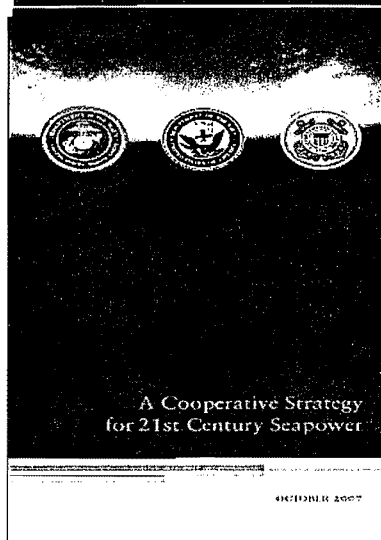
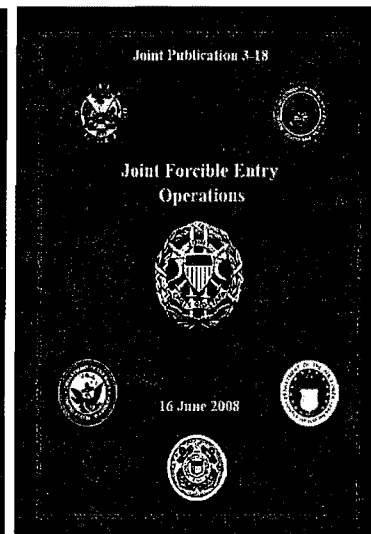
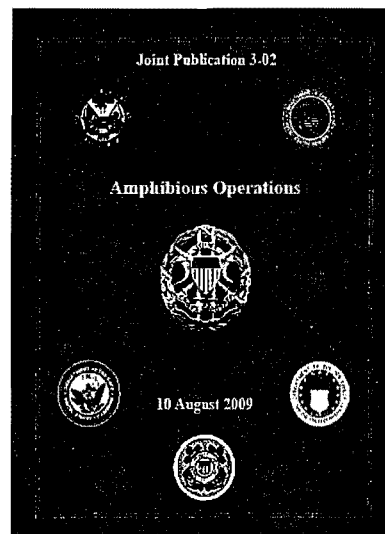
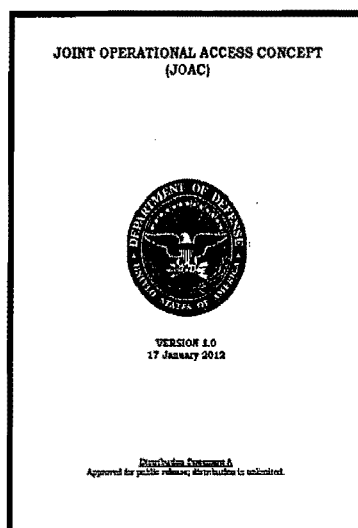
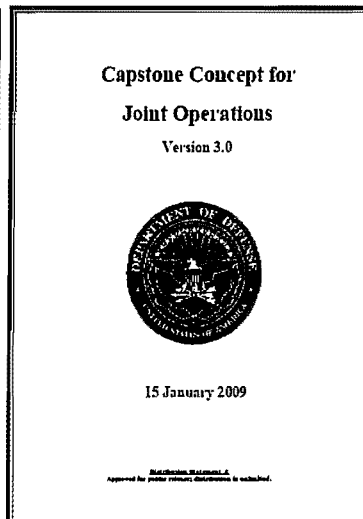
Modern amphibious techniques no longer necessarily focus on or stop at the beach; thus, amphibious operations are not synonymous with amphibious assault. Objectives are now seized well inland as the beach is bypassed altogether. These modern techniques more seamlessly cross the domains of land, sea, and air. They allow the force to conduct amphibious operations well inland, inserted not only by boat but by air, armored amphibious carriers, or even hovercraft. While still an assault capable force, modern amphibious forces have

also been highly visible in humanitarian assistance and disaster relief in such recent crises as Japan and Haiti. Recently in the *Fredericksburg Star*, amphibious forces in a humanitarian relief role were portrayed as “doing more to counter terrorist ideology than any attack mission.” (*Fredericksburg Star*, 8 March 2012). These modern examples of amphibious operations demonstrate US ability to help those in need, as well as deter and address aggression or violence, anywhere in the modern maritime domain. *Amphibious operations, with US joint forcible entry options, represent unique and flexible solutions to challenging and uncertain US security issues in the future.*

References



JANUARY 2012



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Command and Staff College
Marine Corps University
2076 South Street
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In an environment in where China is rapidly expanding, Iran is developing nuclear capability and threatening to close down key maritime trade access points, and Africa is in turmoil, the US finds its global access and freedom of movement threatened. To counter such challenges, US forces must be prepared to maintain access across the global domains of air, land, sea, space and cyber, as defined in its national strategies. The foes that may challenge this access only continue to increase in complexity and capability. They represent a dilemma for the US people as the nation moves away from the wars in Iraq and Afghanistan.

Joint amphibious forces represent a solution to this complicated national security scene. These forces are not solely comprised of the US Marine Corps. The US joint military forces combine inter-dependant relationships and responsibilities that form a synergistic "Joint Air Ground Task Force" similar to a USMC Marine Air Ground Task Force (MAGTF). The Capstone Concept for Joint Operations (CCJO) Version 3.0, signed on 15 January 2009 by the Chairman of the Joint Chiefs of Staff, Admiral Michael Mullin, explains the joint force purpose. The CCJO explains the joint force must operate in an uncertain, complex, and changing future environment characterized by persistent conflict. Forward deployed joint amphibious forces can accomplish these goals in this difficult environment, while protecting US interest abroad, assisting US Allies, and building international partnerships. The joint amphibious force must also maintain a forcible entry capability; however, to deter future enemies and guarantee US access to those regions deemed vital to national interests. Capable joint amphibious forcible entry forces, capable of acting at a moment's notice, and ensure freedom of movement and required access; they buy the nation time and space to react, using diplomacy or force as required by any particular situation.

Conclusion: US national strategies and potential future threats to US national security demonstrate a need that is best satisfied by joint amphibious forces, to include forcible entry capability, as part of the overall US Joint Force in support of US national defense.

Who, Where, and How We May Fight

Given current budget constraints, the end of the conflict in Iraq, and the approaching termination of operations in Afghanistan, the US is at a cross roads. The nation faces a debt crisis and severe budget deficit, hence is in need of a major budget and spending reduction. Yet the potential threats to the US are as numerous and nebulous as ever. The lack of one clearly identified enemy makes developing a defense strategy all the more difficult. Many questions come to mind: how can the US rapidly defend against many unknowns? Who might we fight? Where will we fight? What will be the characteristics of the next conflict and how do we best prepare the US military to meet those future challenges? One part of the solution is Joint Amphibious Forcible Entry Operations (JAFEEO).¹

Amphibious operations are defined as “military operations launched from the sea” using a force deployed aboard naval shipping, “with the primary purpose of introducing a landing force...to accomplish the assigned mission.”² Before dismissing “amphibious” as a thing of the past, be aware that the US has conducted well over 100 amphibious operations since World War II.³ Also, the beach assaults forming the stereotype usage of amphibious operations are only one of their multiple capabilities; therefore, **amphibious assault and amphibious operations are not synonymous**. China, demonstrating the importance of such a capability, recently conducted an amphibious Non-combatant Evacuation Operation (NEO) of over 35,000 Chinese citizens. This NEO took place during the civil war in Libya in early 2011 along with the North Atlantic Treaty Organization (NATO) operations in support of Libyan rebels which toppled Mommar Gadhafi. This event marked China’s first maritime operational deployment to the Mediterranean and Africa.⁴ China may be simply protecting its citizens, but this display could be an indication of a game changer. Most significantly, Beijing could not have done this ten years ago. At a minimum, it shows that other nations are using amphibious operations to project power.⁵

Amphibious operations will likely increase in importance, since globalization is bringing nations ever closer and the world’s seas are key avenues of approach for both global economic and military influence. Coming to grips with the fact that 95% of the world’s commerce moves by sea and over 50%

of the global populous lives within 100 miles of the coast should make anyone pay attention. With emerging threats, global instability, and US fiscal woes, the nation may be committing forces, to include possibly fighting at a disadvantage, as access to foreign countries and coastlines becomes less secure. The United States must thus retain its ability to influence strategic interests from the sea and prepare to gain access as required.⁶ For these reasons, **Joint Amphibious Forcible Entry Operations (JAFEO) are a requirement given national strategic guidance and the future threats faced by the United States.**

The argument for JAFEO is rational and is not tied to the relevance of one service over another for employing such a capability, but requires holistic joint force integration. This operational strategy is not driven by defense programs or funding at the expense of other capabilities in the land, air, or sea domains. Joint maritime capability is required to influence the global domain of the oceans. Given this need, a forcible entry capability allows joint forces to retain or gain access to those global domains.

The case for JAFEO is detailed by further development of:

1. The focus for defense requirements as stated in national strategy.
2. Defining the future threat to the US and where its forces could fight.
3. Details that justify US emphasis on amphibious military capability.
4. Joint Forcible Entry defined and explained based on the future threat to the US.
5. How the United States Marines fit into the overall joint process and national strategy.

By discussing these topics, a sound argument can be made for the direction for the joint military force and the focus for its capabilities to include forced entry from the sea.

Defense Requirements of National Strategies

The national strategies provide guidance on the focus of the policies for the nation in the current global environment. This direction is given in the 2010 National Security Strategy (NSS). In it, President Barack Obama draws attention to the rapidly evolving state of the world due an increasingly interconnected world. He stated, "Profound cultural and demographic tensions, rising demand for resources, and rapid urbanization could reshape single countries and entire regions. As the world grows more interconnected, more individuals...have the capacity to pursue..." their increasing demands.⁷ This

statement acknowledges that there is potential for much instability associated with the vast changes that are occurring. In the 2011 National Military Strategy (NMS), former Chairman of the Joint Chiefs of Staff (CJCS) Admiral Michael Mullen provides further clarification on this potential instability. He stated, "This changing distribution of power indicates evolution to a 'multi-nodal' world characterized more by shifting, interest-driven coalitions [including non-state actors] based on diplomatic, military, and economic power, than by rigid security competition between opposing blocs."⁸ Mullen tells the public that with the breakdown of traditional "bloc" power distribution, trouble could come from any source, state or non-state, and it may be from places that the US may not be expecting. Gone are the stable and reassuring days of a known potential enemy, i.e. the Soviet Union and the Warsaw Pact of the Cold War era.

In this shifting challenge from states to non-state actors, President Obama also called attention to the potential challenges to US freedom to maneuver. He said, "Assured access to and freedom of maneuver within the global commons – shared areas of sea, air, and space – and globally connected domains are being increasingly challenged by both state and non-state actors. These actors complicate deterrence and accountability by extending their reach through advanced technologies that were once solely the domain of states."⁹ Here the President identified his concern for those low end actors that have an unprecedented ability to influence global politics due to the ease of access to advanced technology and a belief system or ideology to support using it. These increasingly decentralized threats to US freedom to maneuver are of great concern to the US top leaders.

Admiral Mullen further defined the importance of global access with the military perspective for national security. He commented, "Joint assured access to the global commons and cyberspace constitutes a core aspect of U.S. national security and remains an enduring mission for the Joint Force. The global commons and globally connected domains constitute the connective tissue upon which all nations' security and prosperity depend."¹⁰ Here, Mullin emphasized the importance of the global joint access mission to the US and the growing concern for its relation to cyberspace. (The cyberspace aspects

relating to forcible entry are discussed in further detail Appendix F). Mullin then connected the importance of global access to the importance of the maritime domain specifically. He contends that “the maritime domain enables the bulk of the joint force's forward deployment and sustainment, as well as the commerce that underpins the global economic system.”¹¹ Mullin states the importance of the maritime domain concerns national security by involving most of the forward deployed US joint force, as well as possessing huge economic significance to the US and the rest of the world.

Statistics demonstrate Admiral Mullen’s concern with the maritime domain and why he views it as vital to the US and its economic and military security. The following figures were presented in a presentation given by the Commandant of the US Marine Corps (CMC), General James Amos, to the Institute for Defense and Government Advancement in July 2011:

TABLE 1- Facts of the Maritime Domain

- | |
|---|
| <ul style="list-style-type: none"> • 95% of the world’s commerce moves by sea. • 95% of all commercial cargo travels through the littorals. • 95% of international communications travels via underwater cables. • 50% of the world’s population and 21 of its 28 of its mega-cities live within 62 miles of the coast. • 49% of the world’s oil travels through six major sea chokepoints.¹² |
|---|

These numbers clearly demonstrate the dependence of the US and the global community on the maritime domain. The majority of the world’s major cities are thus greatly dependant on the sea, hence maritime operations are important. While these figures stand as proven facts, further explanation illustrates the influence of the maritime domain.

Six major sea choke points are of vital interest to every nation on the planet (Fig A). These are the straits of Gibraltar, Hormus, Bab el Mandeb, Malacca, and the Panama and Suez canals, essential for global commerce. Almost all the goods traded by the world’s nations travel through these straits and canals, hence this terrain represent the livelihood for most global economies and commerce.¹³ For example, between 80- 90% of the commerce for all US goods produced in some fashion (based on US imports and exports other than oil) comes through the straits of Malacca. A narrow stretch of water between the Malay Peninsula (Peninsular Malaysia) and the Indonesian island of Sumatra, the strait links

the Pacific and Indian Oceans. Of course, the straits also pertain to oil. The Middle East does not produce many goods other than petroleum, a vital energy source to the world, but its countries also depend on these sea choke points to export their oil and import products from other nations.¹⁴ Maritime access from this perspective is thus not simply military access. Rather, it is access that allows free trade and movement of commerce upon which the states of the world depend. Therefore, these points must remain safe and viable.¹⁵

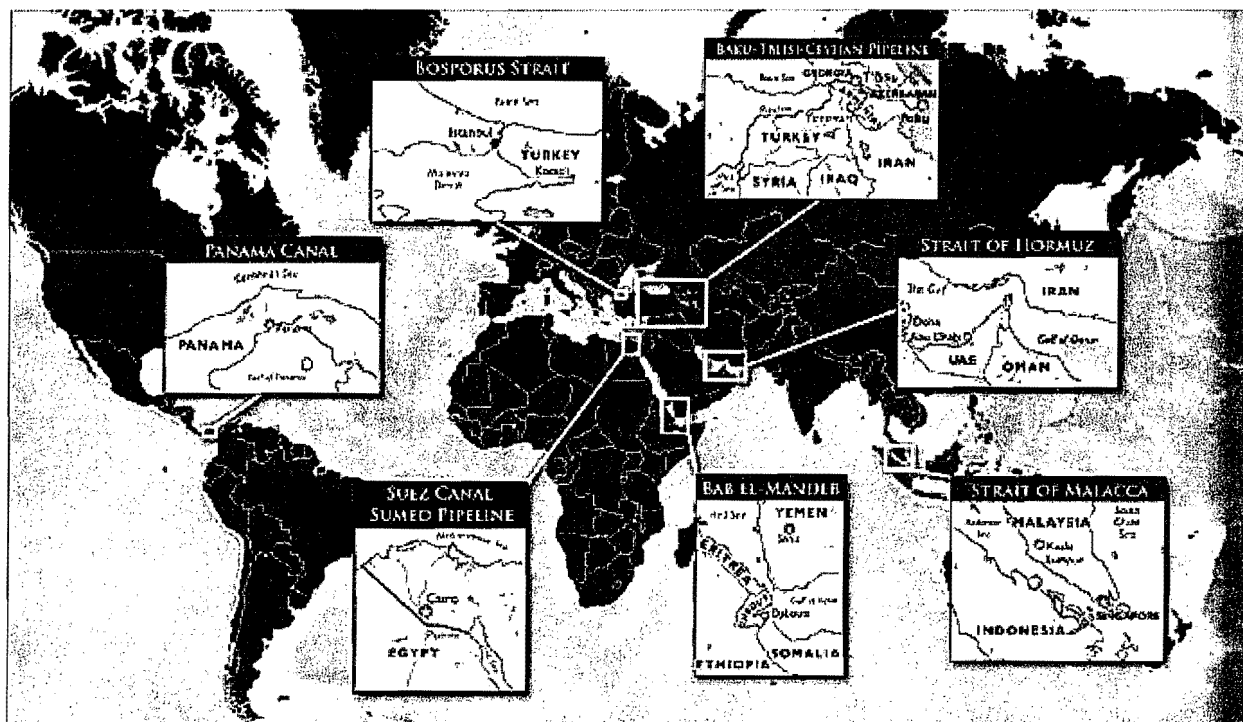


FIGURE A: The six strategic choke points can be seen here (Strait of Gibraltar not labeled) and are tied into oil production and global commerce. They demonstrate the importance of the global maritime domain. Access to these areas are vital to world trade and also many strategic interests of the US. Freedom of maneuver through and around these choke points can be best enabled by US joint amphibious forces with a forcible entry capability. Reprinted by permission from Senator Richard G. Lugar: Lugar Energy Initiative, *World Oil Choke Points*, (Indiana, 2011).

The importance of global access dominates the strategic documents as set forth by the President of the United States and the CJCS. Freedom of movement and the ability of the US to operate within its interests are national security priorities. Allied partnerships and diplomatic endeavors serve to partially satisfy this requirement, but the military is still the primary deterrent and enforcer should anything threaten the interests of the US. With the strategic focus set forth by the national security and military

strategies of protecting US global access, the next logical step is who and what might potentially challenge that access across the globe.

The Real Future Threat

The second point defines the future threat to the US and where it may fight. As the US ends the conflict in Iraq and soon commences its withdrawal from Afghanistan, it still must focus on future potential conflicts. With no menacing threat such as the former Soviet Union of the Cold War, the challenge is anticipating the identity and character of new foes and possible conflicts. Who might be the next US opponent? Where might US forces be called to react and in what capacity?

In the new strategic guidance published on 6 January 2012 by Secretary of Defense Leon E. Panetta, the Department of Defense (DoD) provided updated guidance that clarifies where the US expects threats.¹⁶ When asked about the document, President Obama stated, “the military will...focus to Asia to counter China’s rising influence and North Korea’s unpredictability.” Despite the end of the Iraq war, administration officials said they would “keep a large presence in the Middle East, where tensions with Iran are worsening.”¹⁷ Secretary Panetta and President Obama made no mistake about where potential threats may emerge: China, South East Asia, and the Middle East.

China represents a reasonable choice when planning for a major future conflict. Regardless of arguments about no real war with China, planning to counter its increased economic and military influence is at least prudent. Since the majority of goods, used, sold, or influenced by the US at some time pass through the Straits of Malacca, China’s ability to influence the region is of concern to the US.¹⁸ China’s rise does represent a threat to the US if China decides to negatively influence trade in the region by affecting access or trade routes. Until recently, China lacked the capability to act or influence in a manner that concerned the US. In just the past ten years that has changed.

China now possesses capabilities that concern the US. With its rise in technology, current military modernization, and enhanced capability, China is developing a respectable military with an increased off shore reach. According to analysts at Jane’s Defense, the People’s Liberation Army Navy

(PLAN) "will continue to modernize... a balanced maritime force commensurate with a shift in strategy of coastal defense to a more forward leaning naval strategy."¹⁹ Regarding their navy, reports indicate the Chinese have recently deployed its first aircraft carrier to the South China Sea.²⁰ While they may be years from operating a carrier aircraft strike group, China's recent disputes over areas in the South China Sea and tension with Taiwan have raised concerns.²¹ China also possesses the largest submarine force among Asian countries with its current eight to ten nuclear vessels and up to 60 diesel boats. All together, the Chinese Navy has approximately 320 surface ships, over 100 of which are larger destroyers and frigates, and over 200 fast attack craft. It also possesses an amphibious warfare fleet that can carry a fully equipped army division across the Taiwan strait. This amphibious fleet includes four of the largest hovercraft ever built, similar to the US Landing Craft, Air Cushioned (LCAC).²² As noted by Christian Le Miere, a maritime security researcher at the International Institute for Strategic Studies in London, such an amphibious force is needed by China "If [they] want the surgical insertion of forces, for a range of reasons, then [they] need amphibious response ships."²³ According to some Chinese defense analysts, the PLAN's goal is to develop a regional force that can operate beyond its first island chain and could reach Guam, Indonesia, and Australia, and ultimately a global naval force in the mid twenty-first century.²⁴ China's increase in its navy may not indicate an intent to expand its borders, but does seem to point to an expansion of its influence.

The Chinese Air Force is also increasing its quality and technology. The People's Liberation Army Air Force (PLAAF) is now able to execute roles other than homeland air defense. According to a Philippine news source, "should a shooting war break out over the disputed Spratly Islands, China could easily achieve air and sea superiority due to the increased focus Beijing has given to improving its force projection capabilities in the West Philippine Sea and South China Sea."²⁵ These roles include offensive strikes against ground and naval targets hundreds of miles beyond China's borders (Fig B). A recent increase in long range transport planes mirrors the intent to enhance projection of power beyond the China's border. Another trend has been the accelerated procurement of support aircraft such as aerial

refuelers, electronic warfare, airborne intelligence collectors, advanced warning and control systems (AWACS), and search and rescue platforms.²⁶ All these indications of increased military build-up potentially point to China's desire to extend its influence beyond its borders, but the true motives behind China's build-up remain unclear.

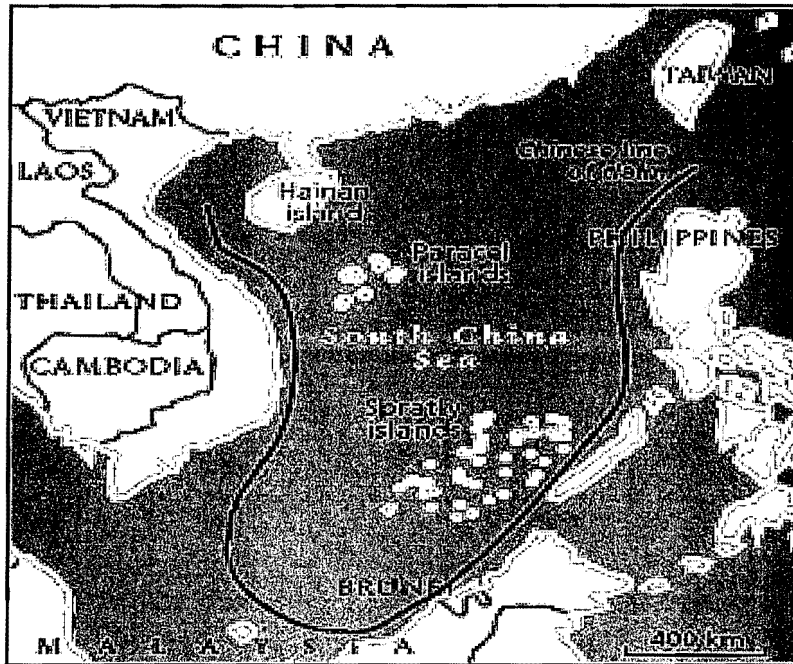


FIGURE B: Shown is the range of the Chinese military as its capability expands and causes concern for its neighbors. Note the scale bottom right.

Reprinted by permission from Dustinthewind blog, *Spratly Islands: Who Really Owns It*,

In addition to North Korea, Iran, and the Middle East, Sub-Saharan Africa represents another area of concern that must be watched with great interest. In the exponentially growing demand for resources, the continent is a veritable gold mine. Vast lands make up a potential “rich Africa,” but relatively poor African people have limited infrastructure to successfully tap into these lucrative resources. With the recent “Arab Spring” of 2011, the stability in the Northern African region is also questionable. As nations like China continue to vie for more global reach and power, their sights are most definitely set on Africa and its resources. In 2011, China's trade with Africa is estimated to have topped \$100 billion. Beijing provides billions in grants and loans to African governments to better facilitate raw material deals or to finance infrastructure projects that could benefit its companies.²⁷ China's presence in North Africa alone was evident by the previously mentioned Chinese NEO. The reason that 35,000 Chinese were in Libya was primarily motivated by China's interest in oil.²⁸ These facts should not come as a surprise, but

serve to reinforce ties between Africa, China, and other nations vying for resources. As Africa represents large global resource interests, future conflicts there, whether direct or by proxy with other interested nations, may occur.²⁹

Africa also poses interest for nations and non-state actors who seek to oppose the US. Such groups are moving to Africa because of its available raw materials and relatively permissive, or unstable and weak governments (Figs C-1 & 2 show China's interest in the region). The African continent is a place where these enemies can live and hide.³⁰ For these reasons, in addition to Chinese interests there, Africa will become of increased concern to the US in national security. With non-state actors, shadow governments, and resource competitors, situations may arise similar to those in which the US fought by proxy against the Soviets in Afghanistan, or the reverse in Vietnam where the US fought the North Vietnamese supplied by the Soviets. In the current scenario, a cat and mouse game with China in Africa is possible.³¹ LtCol Mark Yeisley, who won the General Boyd award for his writings on regional and international security analysis, states that "Sino proxy conflicts over control of African resources will likely become necessary if these great powers are to sustain their national security postures, especially in terms of strategic defense."³² Yeisley's comments offer insight into the possible "where" and the "who" of future conflicts. Therefore, other actors and regions will play roles in how the US must posture itself for national defense.³³

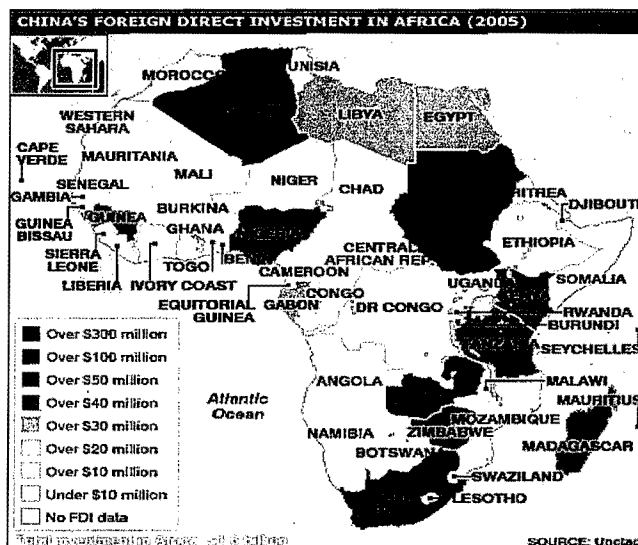
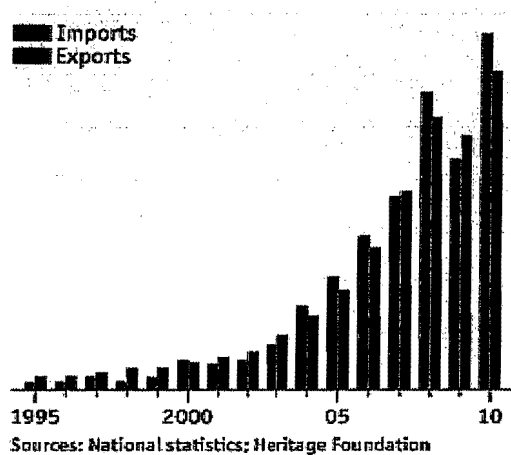


FIGURE C-1 (left): Chinese investments in the African continent as of 2005. Note the areas of highest investment are mostly bordering the maritime region. Reprinted by permission from Global Sherpa, Jr., *China in Africa: South Africa Joins BRIC Summit* (April 2011).

China in Africa

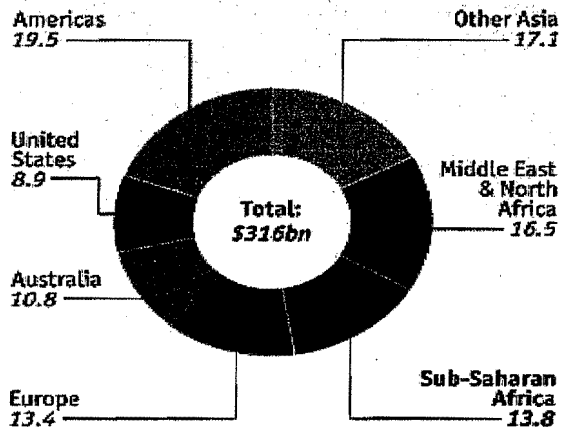
China's trade with Africa, \$bn

Imports
Exports



Sources: National statistics; Heritage Foundation

China's outward investment*, 2005-10, %



*Non-bond transactions over \$100m

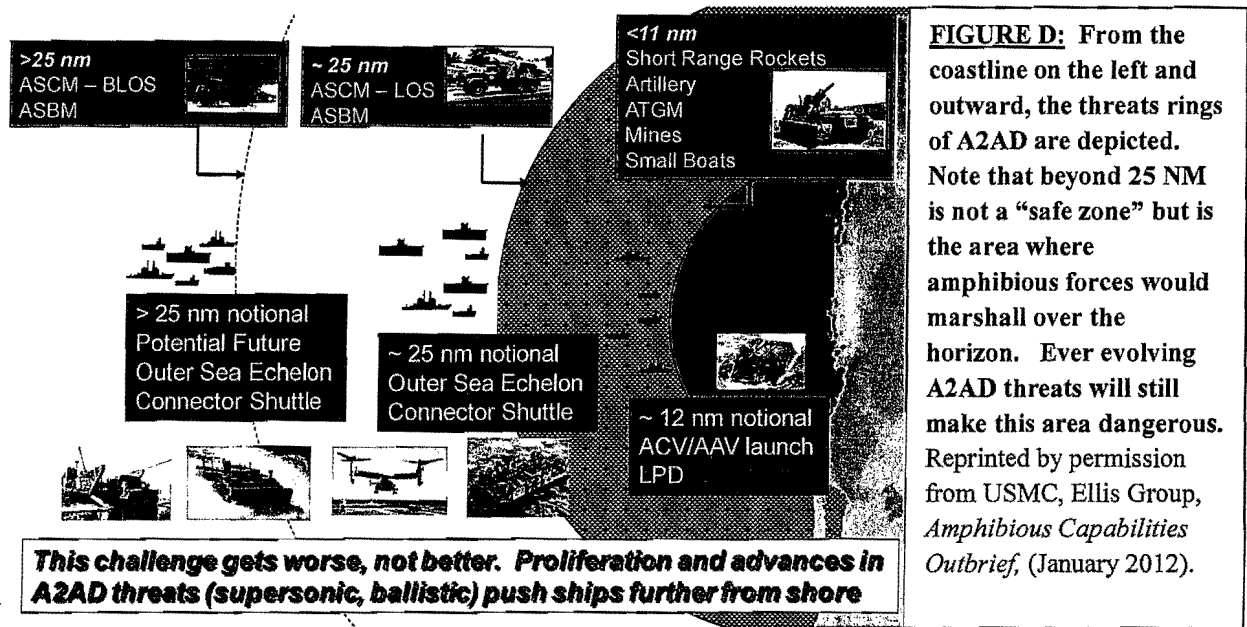
FIGURE C-2 (bottom): Chinese investments in Africa total 30.3% (as much as with the US, Europe, & Australia combined) and are growing exponentially as China seeks to secure resources needed as it expands. They Reprinted by permission from Global Sherpa, Jr., *China in Africa: South Africa Joins BRIC Summit* (April 2011).

With regions and nations of interest defined as potential “where’s” and “who’s” the US should prepare to engage and possibly fight, the next question turns to “how” the US should do so if the need arises. This question is better answered by discussing the expected enemy capabilities the US must address. As stated in the NSS and NMS, threats to US access in areas of interest are what the US must defeat. These threats have been defined as anti-access, area denial (A2AD), and are linked to guided rockets, artillery, mortars, and missiles, also known as “G-RAMM.” These technologies also include mines and any other systems that inhibit freedom of movement and access by the US to vital areas.³⁴

The fear associated with A2AD and G-RAMM is the loss of US access to vital areas of interests. Mackenzie Eaglen, a defense analyst for the Pentagon, says that China is a potential player in this arena. They are “currently building a complex network of anti-access and area-denial platforms designed to inhibit American operations along the Chinese littoral.”³⁵ These Chinese A2AD capabilities may threaten global access to trade areas required by the US and other nations. Increased proliferation and the ease with which A2AD technology may be acquired by non-state actors and groups, such as the Hezbollahs of the world, are of also concern.³⁶ Daniel Goure, a defense analysts with the Lexington Institute, says many

strategists fear that A2AD may affect operations within 50-100 miles of an enemy defended coastline.³⁷

Figure D depicts the problem A2AD represents to US forces.



The threat to US interest are thus numerous and varied. In regions such as the South East Asia, the Middle East and Africa where vital US interest are found, A2AD may threaten trade, access to critical resources, and basic maneuver.³⁸

Why Amphibious Military Capability?

Amphibious capabilities represent a compelling investment in countering the threats, especially those with A2AD capability, that the US expects to face in the future security environment.³⁹ As stated by the CJCS, the security of the US depends on global access and the importance of the maritime domain in that role.⁴⁰ In fact, nations such as China, France, Russia, and Australia recognize that amphibious capabilities support their national interests as well. Amphibious forces represent cost effective and multi-purpose forces that respond to emerging crises, and can rapidly respond across multiple domains to provide forward presence and access. The advantages of the utilitarian nature of amphibious forces are numerous, and are well recognized by many of the world’s militaries as evidence from their defense spending.⁴¹

Misperceptions still exist with respect to modern amphibious operations and these require clarification. As defined, “amphibious operations” are those “launched from the sea by an amphibious force, embarked in ships or craft with the primary purpose of introducing a landing force ashore to accomplish the assigned mission.”⁴² This definition may invoke the idea that the US Marine Corps, as the nation’s amphibious force in readiness, is merely an amphibious assault force. The term “amphibious operations” consequently conjures images of opposed landings as depicted in the movies, e.g. *Sands of Iwo Jima* (1950)⁴³ or the opening scene of *Saving Private Ryan* (1998).⁴⁴ In the latter, US Army soldiers in the European theater are mowed down by machine guns as soon as the ramps drop from their landing craft, or are cut in half by endless explosions on the beach.⁴⁵ In the former, US Marines in the Pacific theater travel in the classic amphibious tractors (AMTRAC), dismounting troops to assault heavily defended beach positions.⁴⁶ Such Pacific Theater operations resulted in the Marine Corps’ tough reputation as it took such islands bastions as Tarawa and Iwo Jima in the “island hopping” strategy to defeat Japan; these examples also belong to the distant past. (See Figure E.)



FIGURE E: Waves of WW II USMC amphibious craft can be seen in the amphibious assault on Iwo Jima. This represents a dated stereotype that confuses current leaders about the modern application of amphibious warfare. The USMC Ellis Group seeks to reeducate today’s leaders on true future amphibious capabilities. Note Mount Suribachi in the distance. Reprinted by permission from US Naval Institute blog, *Assault on Iwo Jima*, (February 2010).

These types of assaults do not seem relevant in the modern age of smart weapons and advanced technology. These sentiments were echoed by former Secretary of Defense Robert Gates when he said, “We have to take a hard look at where it would be necessary or sensible to launch another major

amphibious landing again.”⁴⁷ With this narrow view of amphibious operations, even by a former Secretary of Defense, one might think that the US Navy and Marine Corps have not conducted amphibious operations since WWII, at Inchon in Korea, or at Da Nang in Vietnam. This is simply not true and underscores an overall misunderstanding of the nature of amphibious operations. Americans, to include the nation’s leaders, must be reminded that the aforementioned movies depicted events that happened nearly 70 years ago.⁴⁸ These films neither represent modern amphibious operations nor even the subset of modern amphibious assault in the 21st century. **Indeed, modern amphibious operations are not ancient history, but rather a modern solution to a strategic dilemma. Education in the true flexible and responsive nature of modern overall amphibious operations** is essential to allow their capabilities to be properly used.⁴⁹

Amphibious operations are not synonymous with assault.⁵⁰ They are much more multi-dimensional than the old image. The overall purpose of amphibious operations, as defined by the joint publication, is to use “maritime power projection in joint and multi-national operations that can achieve objectives in one swift stroke; comprise the initial phase of a an operation to establish a military lodgment; serve as a supporting operation to deny the use of an area or facilities; to fix enemy forces and attention; to outflank an enemy; or to support military engagement, security cooperation, deterrence, humanitarian assistance, and civic assistance.”⁵¹ While past successes of the USMC have left visions that confuse “operations” with “assault,” this definition clearly shows that there are far more uses to amphibious operations, and the maritime forces that conduct them, than simply storming a defended beach. The tasks of amphibious operations include:

TABLE 2- Tasks of Amphibious Operations (note those in bold italics are not assault related)

- Attacking enemy critical vulnerabilities or decisive points.
- ***Providing humanitarian aid and disaster relief.***
- Seizing a lodgment, to include ports and airfields; areas for the development of advanced bases.
- ***Evacuating US citizens, selected host nation citizens, or third country nationals.***
- Destroying, neutralizing, or seizing enemy advanced bases and support facilities.
- Seizing preemptive occupation of areas.
- ***Providing a secure environment until follow-on forces arrive.***
- Serve as a forward deployed US presence in a region of instability.
- Serve as an afloat-strategic, operational, or tactical reserve.⁵²

Table 2 displays that amphibious operations do more than simply conduct frontal beach assaults into the teeth of an enemy defense.

To better inform the national leadership on role the amphibious forces should play in post-Afghanistan national defense, General Amos commissioned the Amphibious Capability Warfare Group (ACWG). Given permanent standing, the ACWG was renamed the "Ellis Group" in 2012. This group, chaired by Colonels Mike Groen and Chris Naler, is comprised of 25 members that include eight colonels and two Navy captains. They serve to challenge current strategies such as Operational Maneuver from the Sea (OMFTS) and Ship To Objective Maneuver (STOM), and evaluate if they remain valid in the current threat environment or should be ammended.⁵³

In addition to providing information to the Commandant for the future role of the USMC and amphibious operations, the Ellis Group provides education that dispels misperceptions about amphibious missions. In the past decade alone, US Naval amphibious forces have conducted 65 maritime based operations. These were in areas of Iraq, Pakistan, Haiti, the Caribbean, the Gulf Coast, South America, Gulf of Aden, Philippines, and Afghanistan.⁵⁴ While not all amphibious operations are assaults, if an attack from the sea would be needed today it would not resemble the landing craft and waterborne waves of frontal assaults seen in the Pacific Theater in WWII. The US Marine Corps demonstrated the difference in 2001.

In response to the 9/11 attacks, it combined two Marine Expeditionary Units (MEUs) into Task Force 58 (TF 58). This merger broke the old paradigm of ship to shore movement. It dispelled the old notion of amphibious forces coming in waves of ships to attack the beach. Instead, TF 58 moved from over the horizon to rapidly penetrate directly to the targeted objective via aviation assets.⁵⁵ It was comprised of MEUs that were well trained in crisis response and capable of reacting to any assigned mission set within a six hour period. The merged units, to include all the associated US Navy ships, were placed under the command of a US Marine, Brigadier General James Mattis. He was tasked to seize objectives hundreds of miles ashore in the land locked nation of Afghanistan.⁵⁶ The task force used its

flexible air, sea, and land capabilities and projected a force deep into Afghanistan, seizing an initial airfield called “Rhino,” and building up for the follow-on Kandahar airfield seizure. TF-58 travelled over 400 miles inland via air to ultimately seize Kandahar, with organic task force firepower, supplies, ground forces, helicopters and fixed wing aircraft.⁵⁷ Figure F shows the scale of the movement in contrast to the previous images of the water-borne assault waves at Iwo Jima.

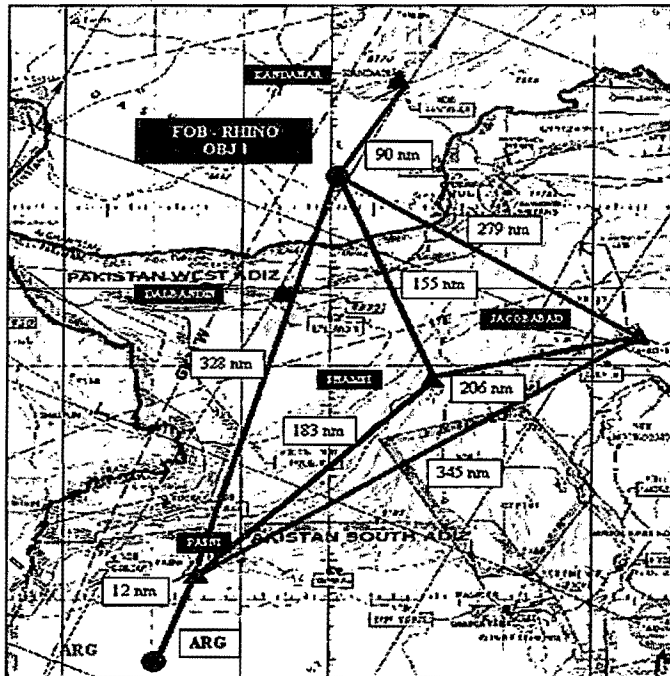


FIGURE F: The line connecting the Amphibious Ready Group (ARG) [depicted bottom left] to the airfield in Kandahar, Afghanistan [top center] display how modern amphibious operations can strike miles inland and avoid beaches altogether. USMC aviation carried forces over 340 miles into Afghanistan to seize Forward Operating Base Rhino to allow the follow-on seizure of the the Kandahar airfield. Contrast this operation to the previous example at Iwo Jima in Figure E. Reprinted by permission from USMC, *Task Force 58 Debrief*, *Unclassified*, (June 2002).

The actions of TF 58 validated concepts such as OMFTS and STOM. OMFTS postulated that in the “absence of an adjacent land base, a sustainable forcible entry capability that is independent of forward staging bases, friendly borders, over-flight rights, and other politically dependent support comes from the sea.”⁵⁸ In this case, no beach landing and traditional lodgment occurred on the coast. TF 58 flew hundreds of miles inland and seized a remote airfield and created a lodgment there for follow-on operations. The operational maneuver of the TF also validated STOM and showcased that maneuver directly from ship to the objective had applicability to modern forcible entry amphibious assaults.⁵⁹ This example of operational maneuver in the maritime domain demonstrated how modern amphibious assaults should be envisioned for future consideration.

In addition to amphibious assault, other examples demonstrate additional valuable aspects of amphibious capabilities and showcase their immense flexibility. In the past five years amphibious operations have supported numerous nations in humanitarian and disaster relief (**HADR**) by US Navy and Marine forces. In September 2005, Marines and sailors aboard a multipurpose amphibious ship, the *USS Iwo Jima* (LHD-7), sped to the Gulf of Mexico in the aftermath of Hurricane Katrina's devastation. In January 2010, 5,000 Marines and 3,000 sailors in seven amphibious ships sailed to the aid of Haiti to provide badly-needed earthquake relief. A similar mission occurred in Pakistan, responding to recent floods there, the *USS Pelelieu* (LHA-5) Amphibious Ready Group (**ARG**) conducted humanitarian assistance/disaster response missions. These missions included flying over 700 miles deep into the recesses of Pakistan, to provide transportation assets and evacuation resources to those trapped and cut off from vital medical care, food, and water.⁶⁰ (See Fig G).

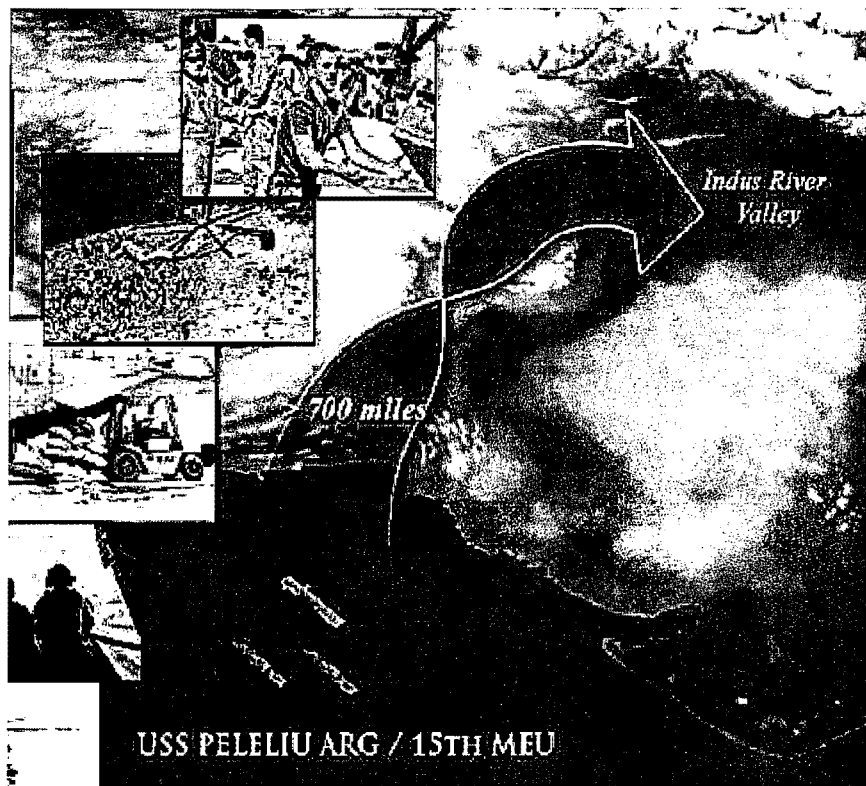


FIGURE G: Not only a potential assault force, amphibious forces from the 15th MEU provided Humanitarian and Disaster Relief (HADR) to the flood victims of Pakistan in August 2010. These forces conducted operation over 700 miles inland. Reprinted by permission from USMC, General James Amos Presentation to Amphibious Operations Summit (Washington DC: July, 2011).

Recent examples further redefine the paradigm of full spectrum 21st century amphibious operations. Within the one year period of 2010-11, amphibious forces simultaneously supported the

following: offensive strike operations against Gaddafi loyalist Libyan forces in the civil war in that country, recovery of downed US Air Force pilots in combat behind enemy lines, counter piracy operations, multiple natural disasters responses, allied nation training, rapid reinforcement of combat operations in Afghanistan, and coastal reserve presence reducing risk to American citizens.⁶¹ These utility usage examples have created huge demands for amphibious capability. The Ellis Group states, “The Geographic Combatant Commanders’ demand for steady-state amphibious forward presence greatly exceeds the current national capacity to provide them by a 3:2 margin and is likely to increase as the United States reduces the number of bases overseas.”⁶² What the group conveys in this statement is two-fold. Not only are these forces already in high demand, but with increasing access challenges, possible closings of overseas regional bases, and fiscal constraints, amphibious forces will be critical to keeping the global domain open in the interest of national security. To accomplish this task, they must possess the capability to gain access in areas where enemies may attempt to deny it.

Why Forcible Entry Capability?

A joint forcible entry (JFE) capability is needed, but this must be explained. Forcible entry, as found in JP 3-18: “Joint Forcible Entry Operations,” is defined below.

Forcible entry is a joint military operation conducted against armed opposition to gain entry into the territory of an adversary by seizing a lodgment as rapidly as possible in order to enable the conduct of follow-on operations or conduct a singular operation.⁶³

Just as TF 58 demonstrated previously, “lodgments” are no longer just on a beach. General Amos uses a simple analogy regarding access through a door to explain the need for modern forcible entry. While amphibious operations allow the US to place its forces “at the front door of crisis and conflict” and also “possess the finesse, the training and the tools to knock at the door diplomatically,” [the US] must remain capable of “picking the lock skillfully, or kicking the door in violently.”⁶⁴ Amos argues that with modern A2AD technologies, the strategic flexibility of naval amphibious forces to gain access forcibly, if required, is thus most important. Considering that forcible entry will most likely include multiple domains, modern amphibious forces are only complete by a holistic joint force integration with the US

Air Force and Cyber Command. Even with complete integration, challenges to US access are not unreasonable to expect and may come at higher future costs.

Combined with increasing demands for resources among established and future states, access to those goods, services, and materials will only get more competitive.⁶⁵ With huge demands identified in a highly connected global society, envisioning state and non-state actors who might seek to leverage access to such materials or services for more political influence, world stature, and global influence is not illogical.⁶⁶ While not functioning like a late 19th century imperial state that would go to war over resources, the US of the 21st century is still concerned regarding competition for resources with nations like China who will be a resource competitor with the US in the next 10-20 years.⁶⁷ The ability of the US to gain access into regions of interest must be defended, and force may be required to assure entry to these areas. A forcible entry capability makes sense as a part of the flexible use of amphibious forces.

The maritime domain lies at the heart of areas of requiring US commercial access and it warrants concern if it is threatened. Potential hostile state actors threatening such access represent a legitimate issue. In early 2012, Iran warned that Tehran may use force to close the 25 mile entrance to the Persian Gulf at the Straits of Hormus if sanctions are implemented that paralyze its oil exports. To demonstrate its capability to deny access to world commerce, Iran conducted 10 days of highly publicized military exercises. State television showed truck-mounted missiles shooting towards international waters, fast gunboats practicing attacks, and helicopters deploying divers and naval commandos.⁶⁸ Iran clearly displayed its capability, and possibly desire, to deny global access to one of the six major sea choke points. Non-state actors also represent threats to US access to such areas. While US forces may not deal with these non-state actors according to the same laws that apply to hostile governments (sanctions and diplomatic means), "Deterrence Operations: Joint Operating Concept 2006" DoD publication offers strategies for these smaller, but still potent threats to US access and states that could deny access to these strategic areas and threaten the national security of the US.⁶⁹

To counter these state and non-state threats to US access, the US must possess deterrence and response capabilities. According to former Secretary of Defense Donald Rumsfeld, "deterrence operations convince adversaries not to take actions that threaten US vital interests by means of decisive influence over their decision-making."⁷⁰ However, when deterrence fails action is required. Amphibious forces with a forcible entry capability are the best and most flexible forces that can bring not only deterrence but also action when the former fails.

Amphibious forcible entry operations in the face of the A2AD threat require significant consideration to threat mitigation. However, the A2AD threat should not preclude the use of amphibious forcible entry as a tool. Historically, the Ellis Group recounts that supporters of new weapons, such as the machine gun, the air plane, and the atomic bomb, have declared all other weapons obsolete. Yet history is full unmet expectations by new technologies, especially those that were meant to make other forms of war no longer relevant.⁷¹ The concept of A2AD is no different and they do not render amphibious operations obsolete. If US joint forces must directly confront enemies with modern A2AD capabilities, joint amphibious forces bring unique maneuver to and maneuver in the maritime domain that gives advantages over other means of power projection.

While still threatened by access denial weapons, amphibious forces are not threatened in the same way fixed air bases or ground assembly areas are endangered. Non-maneuverable "fixed" land bases are susceptible to the enemy capability and essentially eliminate options (airborne, land-based air assault, or large ground forces) to conduct forcible entry against the enemy A2AD network. The difference between land bases and amphibious forces is not one of "reach" from the friend or foe perspective. Amphibious forces simply further complicate the enemy solution for A2AD and offer more flexibility in a world where every little advantage helps. The static ground airfields or bases are easier to target, and as Colonel Naler additionally notes, "the enemy may not wait 30-60-90 days for the US to build up an iron mountain of logistical supplies and infrastructure required at those bases to conduct a major offensive campaign."⁷² In this case, amphibious forces can provide an initial US ground force for a forcible entry if that is

needed. If such an entry is opposed, joint amphibious ground forces (not only Marines, but also the US Army as required) and the naval shipping upon which they operate, are the viable resource if fixed bases or ports are more susceptible to the enemy's anti access network.⁷³ Still, all forces in war, including mobile amphibious forces, are at risk and can be vulnerable.

The Falklands War between Great Britain and Argentina demonstrated what can happen to amphibious forces while at sea. The *SS Atlantic Conveyor*, a British transport ship, was damaged beyond repair by two Exocet anti-ship missiles fired by an Argentine plane. The ship's cargo of helicopters was lost as well, which greatly hindered the British troops' mobility. Likewise, the *RFA Sir Galahad*, a British troop transport, was also attacked by Argentine aircraft carrying bombs. Nearly 50 soldiers and sailors were killed as bombs set the ship ablaze, and ultimately led to its scuttling. The events that befell the British in the Falklands displayed the vulnerability of amphibious forces to A2AD and what can happen if they are not neutralized.⁷⁴ Threats from enemy naval and air forces must be addressed by the entire joint amphibious force to achieve success. The amphibious force requires relative air superiority, part of addressing the enemy A2AD capability, to allow successful maneuver at sea. These and other requirements display critical vulnerabilities of amphibious forces that must be considered by the overall joint forces. Modern A2AD technologies make the holistic joint integration of forcible entry with naval amphibious forces even more important.

The US Joint Chiefs of Staff have acknowledged the importance of joint amphibious capabilities and forcible entry requirements. They have recently developed a joint strategy, to include JAFEO, entitled "Air Sea Battle" (ASB). The ASB strategy is designed to mitigate and overcome the A2AD threat using multiple domains and maximizing all the power of the joint military force. The Air Force Chief of Staff, General Norton A. Schwartz, confirmed that the strategy "is not about just the Navy and the Air Force – or about just the US military alone, for that matter – but about full spectrum access and freedom of action to enable our Nation's collective, multi-dimensional interests around the world."⁷⁵ Clearly General Schwartz addresses the need for the entire military to use its power to defeat A2AD

threats to US access. ASB is unique in the fact that it is not ad hoc but a redefined relationship in the way the joint force operates together. It is an “initiating concept” that does not intend to address a single region or enemy. Rather, it provides a new way to look at future foes who might deny access to areas or cyber networks by creating a cross spectrum challenge to US forces, be it low-end, high-end, or hybrid.⁷⁶ ASB is flexible, just as amphibious forces are flexible.

While ASB may seem like an old idea with a fresh coat of paint, it is original in many ways.

These aspects include:

TABLE 3- Unique Aspect of the Air Sea Battle Concept

- Establishing formal institutional structures that normalize air-sea collaboration.
- Organizing concepts that comprise a strategic framework on the enhanced permanent integration of Navy and Air Force assets, including elements of doctrine, training, leadership, and personnel.
- Material interoperability, including integrated acquisition strategies toward enhanced joint operational capabilities.⁷⁷

When General Schwartz emphasizes the overall goal of ASB, he summarizes the real key to its argument as a concept. He states, that unlike previous inter-service collaboration, “ASB...is about maintaining and improving US expeditionary power projection capability”⁷⁸ in dealing with A2AD. He explains that the concept “centers on networked, integrated, attack-in-depth to disrupt, destroy, and defeat (NIA-D3) A2AD threats.” It “exploits and improves upon the advantages US forces have across the air, maritime, land, space and cyberspace domains, and is essential to defeat the increasingly capable A2AD systems.”⁷⁹

While working to corral the whole of US military efforts, the ASB cooperative strategy is far from unique. In the 1980’s, Air Force B-52 bombers incorporated Navy Harpoon missiles for maritime attack missions against Soviet sea-based defense capabilities.⁸⁰ ASB seeks to expand such capabilities into an institutionalized capability. Navy Aegis ships would supplement Air Force missile defense for forward bases in the Western Pacific. Navy sub-launched missiles could destroy IADS for subsequent Air Force strikes, as Navy / Marine aircraft and ground forces secured forward air bases for Air Force tankers.⁸¹ Air Force intelligence, surveillance, and reconnaissance (ISR) capabilities would send video feed sent directly to Navy ships transiting high threat areas.⁸² Air Force aircraft could support

antisubmarine warfare through offensive mining by stealthy bombers.⁸³ ASB seeks the most efficient way to overwhelm an enemy, fighting in multiple domains with US joint forces operating as a holistic team in the land, sea, air, space, and cyber domains to maximize the chances for strategic access with overwhelming speed and flexibility.

ASB makes the joint relationships in JAFEO more refined to meet the A2AD challenges the US expects to see in the future conflicts.⁸⁴ The Ellis Group contends that in support of this strategy and “as a microcosm of the joint force, amphibious forces provide a comprehensive cross domain capability (land, sea, air, and space) that is particularly well suited to the security demands of the nation.”⁸⁵ Colonel Groen further confirms that in this ASB strategy, the amphibious force fits well into the concepts required for a well integrated force that will be needed in the coming fiscally austere future.⁸⁶ With all these A2AD threats to access, the reasons joint amphibious forces need a forcible entry capability is well justified to address the access issues deemed vital by the NS and NMS.

USMC, the Joint Process, and National Strategy

The United States Marine Corps must fit into the overall Joint Amphibious Forcible Entry role. Current planned capabilities of the USMC align themselves with the desires for future national defense. These planned capabilities come with enablers in place to address effects from any future threats as well. US power projection is specifically enabled by a joint land, sea, and air force that can operate and succeed in the littorals. Operating as a Marine Air Ground Task Force (MAGTF) aboard Navy amphibious shipping, US Marines represent the only forces presently in the US inventory that can execute this required amphibious mission while training to do so as a core competency.⁸⁷

As the nation’s amphibious force in readiness, US Marines provide the initial ground force that is required by the national strategy to counter its potential enemies via responding to “today’s crisis, today.”⁸⁸ This phrase simply means that Marines are ready, and can act against a myriad of threats to the nation at a moment’s notice. This forward deployed, expeditionary posture is explained further by Colonel Naler of the Ellis Group as “Fights on! Come as you are. Let’s Go.”⁸⁹ These unique USMC

characteristics provide inherent flexibility that lend very well to the unknown and rapidly changing threats to US interests. Of great advantage, this middle weight, crisis response force provides presence and an initial power projection at a time and place of its choosing if the need arises. This aspect of the Corps creates a strategic asymmetry that can impose great cost on potential enemies.⁹⁰

These forces are sustainable for the for a relatively long period, sustained by US Naval shipping, and return to sea as rapidly as they came ashore.⁹¹ In the volatile, complex and uncertain environment, the Marine Corps is broadly capable of executing missions as required across the varied domains. While precision fires and GPS guided munitions are commonly used, they are not always the answer to every security challenge.⁹² The Marine Corps provides the strategic flexibility and options needed to meet such wide ranging and varied challenges with speed and precision across the spectrum of modern conflict .⁹³

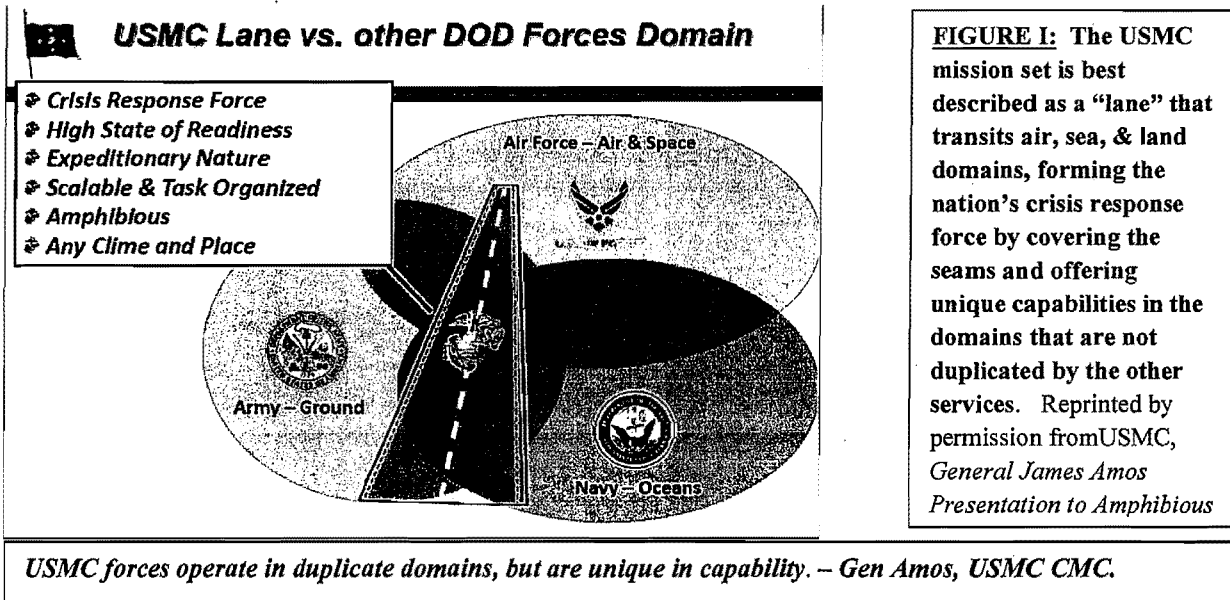
A key argument for the US Marine forces lies in how those maritime soldiers can fulfill the need of the US for a forcible entry capability to protect its national interests. At this point, for amphibious force justification, USMC supporters call upon the fiscal cost efficiency of US Marines being the best “bang for the buck.”⁹⁴ (Appendix D involves logic and statistical data fully supporting fiscal advantages of amphibious forces.) **While this argument has merit, it detracts from the overall fact that joint maritime forces offer the best solution to the US security dilemma.** This issue at hand is not about money, but about required capabilities for national defense requirements.

Given the mission sets that the US Marines are trained to execute, its capabilities well satisfy the requirements of JAFEO. Inseparable from the US Navy, the two maritime services combine to offer the solution. Together, they accomplish the maritime role of the overall joint forces in JAFEO. The USMC and the USN cannot succeed without each other. Therefore, given the previously argued need for JAFEO, **there is no better force to accomplish this mission than the US Marines, co-equal with the USN, within the Department of the Navy. These two services create maritime synergy** for the best solution: enabling JAFEO to meet the dilemmas caused by A2AD and support the nation’s interests.

Continuing to define the USMC role in JAFEO, Marine Corps and US Navy leaders are examining a concept called the "Single Naval Battle" (SNB). The Ellis Group defined SNB as a "unifying concept for naval operations that envisions the maritime and littoral domains as an indivisible."⁹⁵ This concept enables maritime synergy in support of a unified and seamless operating concept for joint amphibious expeditionary power projection as part of the overall joint forces team.⁹⁶ SNB is the key to the holistic operations of the USMC and the USN as the Department of the Navy supports US joint military forces. The Ellis Group contends SNB "seeks to link the elements of naval power projection into the design of a single naval campaign. It is premised on approaching the maritime domain as a singular battlespace, containing land, sea and air components."⁹⁷ However, previous understanding by US Navy and Marine forces of how they will fight in the combined maritime and littoral domain has waned due to the USMC's recent use as a de facto second land army in Iraq and Afghanistan. This atrophy of amphibious proficiency demands intensely renewed coordination between the Navy and the Marine Corps.⁹⁸ SNB seeks to remedy weaknesses in USMC and USN relationships and to minimize seams across multiple domains at the operational level of war that hinder operations between the two services.⁹⁹ Only recently have the two services commenced enhanced training to reacquire these essential skills.

SNB is also designed to align Navy / Marine Corps defense programs to provide synergy and "joint" agreement on how the amphibious team trains and fights together and how their role in the domains of land, sea, and air relate to those of the joint forces (Fig I). Emphasis is placed on complimentary systems and capabilities, where US Naval assets closely compliment the Marines ashore by fire, information, intelligence, and communication. The tasks and relationships are streamlined and tied back to amphibious shipping. Navy and Marine Corps agreement on this concept will better align service requirements to compliment roles and ease fiscal constraints, while also developing a leaner, more complimentary, and efficient amphibious fighting force. According to General Amos, the USMC CMC, the current USMC need is more than the US Navy has commissioned. The disparity in USMC

requirements and USN availability is a problem that must be addressed with funding and procurement or an adjustment to strategic capability. The concepts of SNB feed directly into ASB and the Department of the Navy (DON) role of the joint force of the future.¹⁰⁰



Concerns for the Future

In order to maintain the amphibious capability with JAFEO that best suits achieving national strategy, US Marine and US Naval leadership have concerns about the future. Recognition of these deficiencies is essential to provide solutions to shortfalls before they become issues hindering national defense. As SNB begins to come to the forefront, the weakened relationships between USMC and USN personnel across the services become more evident. Recognizing this, Marine and Navy have taken action. (See Appendix C for a more detailed debrief to the USMC CMC by the Ellis Group.)

The Marine Corps fundamentally grasps that the land wars of the past ten years have not only atrophied in its own amphibious emphasis, but also created an overall lack of the understanding of the employment of amphibious forces between the Joint Services and the Regional Combatant Commanders (RCCs). The need exists to clarify and reeducate the joint warfighters regarding amphibious capability.¹⁰¹ This recommendation by the USMC's Ellis Group is not that of salesmen conducting a door to door pitch, peddling the USMC. Its purpose, as a permanently standing

organization similar to the old Amphibious Warfare Presentation Team (AWPT), focuses on amphibious training, study, and education to the public.¹⁰² This goal includes educating and mentoring Joint Services and RCCs so the utilitarian characteristics of amphibious forces are understood. This mentorship also includes other US and Allied military services, US Congressmen, and senior executive officials. A holistic understanding of amphibious forces enables the efficient use of those forces. As the Ellis Group educates RCCs, these commanders will better grasp how the expeditionary amphibious nature of the US Navy and Marine Corps team can rapidly respond to any crisis until the larger joint force can mobilize to assist, as required. Comprehension of their flexible, crisis response role, allows leaders to properly employ and utilize their unique capabilities.¹⁰³ The Ellis Group is dedicated to better finding ways to leverage amphibious capabilities in support of the NSS in conjunction with the US Joint Forces and US Allies.¹⁰⁴

Exercise "Bold Alligator" represents the practical application of amphibious doctrine intended to reeducate the USN and USMC team. Bold Alligator 2012, the largest amphibious exercise of its type in over ten years, is designed to reacquaint the maritime services with "joint" operations from the sea. The exercise was conducted from 30 January – 13 February 2012 off the coast of North Carolina and involved more than 24 US Navy and Allied ships, and over 20,000 Marines and sailors, including forces from the Great Britain, Canada, the Netherlands, Italy, Spain, France, and New Zealand.¹⁰⁵ US Navy planning and "battle" staffs, who had not recently operated with each other, are now becoming familiar again with the skills each brings to such operations. Rear Admiral Kevin Scott, commander of Expeditionary Strike Group 2, said, "The exercise's scale has connected warfare communities that have lost touch."¹⁰⁶ Scott noted the need to completely integrate at the highest level to accomplish the tenants of JAFEO goals. He stated that the USN and USMC team is "more integrated than we've ever been before and we're not just within our own amphibious cocoon. We've integrated the Enterprise Carrier Strike Group, forces ashore and synthetic forces to make this a more engaging opportunity."¹⁰⁷ Such integration has been lacking for the past decade due to conflicting requirements of the USMC functioning

as “a second land army.”¹⁰⁸ The requirement to operate both in Iraq and Afghanistan consequently caused a rift in the tightly knit maritime relationship between the US Navy and Marines. Bold Alligator 2012, and those in the future, seeks to train US Naval forces capable in JAFEO.

Additionally, the Ellis Group recommended that joint amphibious doctrine be completely overhauled. Doctrine currently lags behind by years, hence is currently outdated. As of this writing, *JP 3-02: Amphibious Operations* is being updated and should be published in 2013.¹⁰⁹ The subsequent version should address future challenges, joint force composition, and scenarios for the varied application of amphibious operations. The Ellis Group assessed existing doctrine, and concluded that “joint doctrine needs to embrace distributed operations, force aggregation, crisis response, and cross domain approaches to be relevant.”¹¹⁰ These responsibilities and roles for support, advanced force, and projection operations must be updated and further developed. With clear, refined, and deliberate doctrine, roles of joint amphibious force members will be set so future planning, training, and execution can be better managed.

Other major areas of concern for the maritime and littoral forces deal with capabilities. One such capability is Short Take Off, Vertical Landing (STOVL). If the STOVL capability is lost, the ability of the US Navy and Marine Corps team to respond to crisis may be threatened. General Amos has reminded Congress that with STOVL capability the nations possess 22 big deck carriers with tactical jet and strike capability. This fact accounts for 11 US Navy Carriers and 11 large deck amphibious ships. With no STOVL capability, strike air from “carriers” is reduced to only 11.¹¹¹ Thus, STOVL dramatically affects the manner in which US forces can affect national security and should not necessarily be tied to a program such as the current F-35B, the developing STOVL variant replacing the AV-8B Harrier.

The STOVL need was again demonstrated as recently as early 2011. STOVL AV-8B Harriers attached to the 26th MEU provided strike air support for the Libyan conflict. In fact, their capability to launch from amphibious shipping allowed more timely data and intelligence updates and was more responsive to tasking than land based aircraft supporting from Italy.¹¹² STOVL is not only convenient but essential, as those same MEU aircraft covered the tactical recovery of a downed F-15 pilot during the

same conflict. Osprey pilots tasked with recovering the downed pilot simply planned and launched with the STOVL Harrier pilots supporting them. No air strike assets had to be diverted and the Osprey rescue platform was not delayed in its mission because of the organic MEU STOVL strike aircraft. The former commanding officer of the 26th MEU, Colonel Mark Desens, confirms this as he explains, “if you remove the STOVL capacity, you remove much of the [the Navy-Marine Corps Team’s] ability to assist the JFC across the range of military operations (ROMO) thus diminishing the value of what the MAGTF can provide the nation.”¹¹³ As an experienced commander in support of recent HADR and combat operations, Colonel Desens contends that the STOVL capability capitalizes and energizes the Navy-Marine Corps Team: Arguably the most important tool in the US arsenal for crisis response across ROMO. According to combat leaders currently operating in joint and combined operations with the nation’s allies, STOVL has demonstrated itself to be more than just nice to have.¹¹⁴

Of further concern to Marine leadership is an armored and ship to shore troop carrying capability for use in a variety of amphibious maritime based missions. While TF 58 demonstrated that STOM is also accomplished via air, with assets such as the MV-22 Osprey (tilt rotor), CH-53E Super stallion, and UH-1Y Huey (both helicopters), there remains a need for vehicles such as the aging USMC Amphibious Assault Vehicles (AAVs). With the Expeditionary Fighting Vehicle (EFV) cancelled, the search for a 21st century replacement capability continues. General Amos noted to Congress that “as the Secretary of Defense affirmed earlier this year, the cancellation of the Expeditionary Fighting Vehicle is by no means a rejection of the Marine Corps amphibious assault mission.”¹¹⁵ The Marine Corps must now extend its aging fleet of AAVs. While the requirement is estimated at no more than half the current 1,000 AAVs and expecting those remaining vehicles to last another 10-15 years, the replacement remains uncertain.¹¹⁶ Potential replacements include the Amphibious Combat Vehicle (ACV) and the Marine Personnel Carrier (MPC), in conjunction with a some sort of ship to shore connector.¹¹⁷ The USMC requirements, listed in the AAV request for information (RFI), and MPC concepts are further discussed in Appendix C. As a

Marine Corps Times reporter notes, “the Marines are seeking responses to the AAV RFI by March 4, and those to the ACV and MPC on April 22.”¹¹⁸ (See Appendix E for a more detailed discussion).

With the ACV and the MPC in work, the Ellis Group continues to seek the proper direction for this aforementioned capability. Is the answer more surface combat tank, armored vehicle, or landing craft? If the replacement resembles the current USMC light armored vehicle (LAV-25), should the USMC work with the Navy to acquire more ship to shore connectors to carry the armored troop carriers? The capability, focusing on the SNB concept, hinges on detailed coordination with the Navy regarding both distance of deployment from shore and what ship storage space will be required.¹¹⁹ These issues have not been resolved and may take new directions based on future CMC guidance. Both USMC and USN leaders understand whatever the solution, it is tied not only to Marine Corps’ needs but also the US Navy’s ability to employ and support in a threatening A2AD environment.¹²⁰

Given the interdependent employment of these amphibious vehicles and connectors, deployment techniques from US Navy ships represent differing concerns between Navy and Marine leaders. The EFV was set to deploy from ships at 25 NM from shore, and designed to travel 25 knots to shore for a one hour transit time. The one hour transit time was deemed the maximum embarked troops would be subjected to riding in a small cramped craft to the shore.¹²¹ With the EFV cancelled, the current compromise for the Navy is to dart in from 25 NM to 12 NM under cover of darkness, deploy the craft, and return to 25 NM. These distances make ships vulnerable to G-RAMM A2AD assets and while darkness and swift action are envisioned to mitigate these risks, IAD neutralization and countermining tactics by the joint force are still required and are probably more important for mitigation.¹²² This compromise seems reasonable until consideration is given that current AAVs are deployed from 3-5 NM from shore. The Ellis Group acknowledges this dilemma and is currently working on replacement vehicle capabilities, balanced with A2AD concerns for US Navy ships.¹²³ The ACWG concedes that given A2AD capabilities, it is likely JFE operations may have to take place with greater stand-off. These experts concede that there is no current good answer and the solution is still being developed.¹²⁴

Among other A2AD concerns for the Marine Corps and the Navy are mines. Mines, old or new, are cheap. They are relatively easy to emplace, readily available, and can create great hazard to US military and global commercial shipping. In his 1999 thesis on mine warfare, Lieutenant Commander Paul McElroy, United States Naval Reserve, recounts the nightmares that mines represent to amphibious landings. He states, "the amphibious operation at Wonsan Harbor North Korea was a mine warfare disaster for the US Navy. For five days it delayed General MacArthur's ordered assault on Wonsan to cut off the enemy retreat north and to open a second supply line to relieve the over-stressed port of Inchon. Additionally, it resulted in four minesweepers sunk and numerous personnel casualties."¹²⁵

Counter mine techniques are not much better today. Lessons from the Korean War and more recent events such as the fast attack frigate *USS Samuel B. Roberts* (DDG-58), mine strike serve to make counter mine warfare still relevant.¹²⁶ Current counter-mine techniques involve towed sleds by helicopter. In an A2AD environment consisting of IADs, this is not feasible. For these reasons, the ACWG is currently working with the US Navy to rewrite publications dealing with countering mines in the A2AD realm.¹²⁷ The technology is presently available that allows unmanned submersible vehicles to find mines, identify their types, transmit the information back to ships, and then detonate them at a time of the task force's choosing.¹²⁸ This solution offers a better option to counter mines, and may offer secondary solutions for launching USMC amphibious troop carriers. These are some of the capabilities that must be addressed to ensure success as the US Naval services seek to meet A2AD challenges in support of ASB, SNB, and the overall joint force.

While these surface craft are necessary for full spectrum amphibious operations, the ability to avoid disadvantages of water borne surface craft, to include limited range, speed, "deployability," and mine related issues, is available through aviation assets. STOM examples such as TF 58 validated insertion of amphibious forces in this manner. Movement of embarked troops from ship to objective via aviation allows amphibious forces to be inserted from a much greater distance at greater speed than by surface landing craft; it may also render mines nearly irrelevant.

Amphibious insertion by aviation has its challenges as well. The option is not feasible without some type of IAD neutralization and relative air superiority to deal with A2AD threats similar to those that plagued the British during the Falklands campaign. ASB and SNB propose solutions and mandate that the joint force work as a fully integrated unit. A possible STOM amphibious aviation insert scenario may evolve as follows: Long range US Air Force strikers and bombers, US Navy picket ships, and potentially submarines provide IAD disruption with missiles, bombs, and radar jamming on key IAD nodes. Navy amphibious ships maneuver close enough to launch MV-22 Ospreys troop carriers and STOVL fixed wing strikers with an assault force to some objective ashore. US Navy aircraft carriers provide follow-on waves of strike and support aircraft after the initial USAF and USN strikes, as the Air Force planes and Navy pickets continue to provide high end radar jamming, signals intelligence and overall electronic warfare. The aforementioned scenario is heavily aviation centric, but is a means to an end not an end in itself, i.e. air supporting the insertion of a landing force ashore. This example demonstrates enhanced options available to JFCs by using joint amphibious forces.¹²⁹

The actual implementation of ASB and SNB are the critical common function to all potential scenarios or concepts discussed thus far. The concepts address the most vital aspect for future JAFEO: **Joint Amphibious Operations that face access challenges and require forcible entry cannot be accomplished without the full weight and total cooperation of the joint force.** With all the requirements that must be satisfied in a true JAFEO environment, no single branch of the US military can achieve success on its own. These overall concerns by USMC leaders, as well as those of the other branches, demonstrate an overall acknowledgement of a future where all branches must resist parochialism and embrace the true joint force to defend national interests.¹³⁰

Conclusion

JAFEO is one clear solution to meet NSS and NMS requirements for the seemingly endless array of potential future threats. Given the uncertain future challenges facing the US, the nation needs a completely integrated relationship between the US military branches in a true joint force capacity. ASB

and SNB demonstrate efforts in this direction. As professionals defending the nation, US military leaders must stay the course and implement these concepts to realize the full potential power of the joint force. While the unique capabilities of the Marine Corps focus on joint amphibious forcible entry as part of the overall US Joint Force's mission, the USMC cannot act alone. **The key point postulated in this paper is that JAFEO are indeed required to support national defense requirements and are not a “bumper sticker slogan” justifying the continued existence of the USMC.** The US Marines possess an essential and unique part of the holistic joint requirements for JAFEO and cannot accomplish the mission without the other US military branches, especially the US Navy.

National security requirements are well articulated by US national strategy, future threats to US national security, established needs for amphibious operations and forcible entry capabilities, and existence of USMC forces that operate in unique manners not well suited for the other service branches. These arguments prove that the US Marines are an integral component of the maritime and littoral forces of the Department of the US Navy, in support of the overall joint force. With the war in Afghanistan drawing to a close, the Marines are free from its temporary, but necessary, role as a second US land army. The US Marine Corps will now refocus on its amphibious, expeditionary roots with the US Navy to remain the premier US crisis response force “responding to today’s crisis today.”

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APPENDIX A: LIST OF ACRONYMS

A2AD – Anti-Access, Area Denial

AAV- Amphibious Assault Vehicle

ACSM – Advanced Conventional Stand-off Missile

ACV- Amphibious Combat Vehicle

ACWG – Amphibious Capability Working Group (re-named “Ellis Group”)

AMTRAC – Amphibious Tractor

ARG – Amphibious Ready Group

ASB – Air Sea Battle

ATGM – Anti-Tank Guided Missile

AWACS - Advanced Warning And Control Systems

AWPT – Amphibious Warfare Presentation Team

BLOS – Beyond Line Of Sight

CJCS – Chairman of the Joint Chiefs of Staff

CMC – Commandant of the Marine Corps

DDG - Guided Missile Destroyer

DoD – Department of Defense.

DON – Department of the Navy

EFV – Expeditionary Fighting Vehicle

GPS – Global Positioning System

G-RAMM – Guided Rockets, Artillery, Mortars and Missiles

HADR – Humanitarian Aid, Disaster Relief

IADS – Integrated Air Defense

JAFEO – Joint Amphibious Forcible Entry Operations

JCS – Joint Chiefs of Staff

JFE – Joint Forcible Entry

LAV – Light Armored Vehicle

LHA - Amphibious Assault Ship (General Purpose)

LHD - Amphibious Assault Ship (Multipurpose)

LOS – Line Of Sight

LPD - Landing Platform Dock

MAGTF – Marine Air Ground Task Force

MCP – Marine Personnel Carrier

MEU – Marine Expeditionary Unit

NEO - Non-combatant Evacuation Operation

NIA-D3 - Networked, Integrated, Attack-in-depth to Disrupt, Destroy, and Defeat

NSS – National Security Strategy

OMFTS – Operational Maneuver From The Sea

ROMO – Range of Military Operations

SNB – Single Naval Battle

STOM – Ship To Objective Maneuver

STOVL – Short Take-Off, Vertical Landing

TF – Task Force

USMC – United States Marine Corps

USN – United States Navy

RFI - Request for information

RCC – Regional Combat Commander

APPENDIX B: GLOSSARY

access - The ability, right, or permission to approach, enter, speak with, or use. (freedictionary.com)

air sea battle – Strategy that creates enduring partnership between the US air and sea services that expands upon current joint doctrine, organizations, and training; integrates weapon systems toward increased interoperability and resiliency; and links distinct command and control networks toward increased connectivity and seamlessness. (Schwartz).

amphibious assault - The principal type of amphibious operation that involves establishing a force on a hostile or potentially hostile shore. (JP 3-02)

amphibious assault ship (general purpose) — A naval ship designed to embark, deploy, and land elements of a landing force in an assault by helicopters, landing craft, amphibious vehicles, and by combinations of these methods. Also called **LHA**. (JP 3-04)

amphibious assault ship (multipurpose) — A naval ship designed to embark, deploy, and land elements of a landing force in an assault by helicopters, landing craft, amphibious vehicles, and by combinations of these methods. Also called **LHD**. (JP 3-02)

amphibious assault vehicles – Current version of USMC amphibious armored personnel carriers; must be extended due to cancellation of the expeditionary fighting vehicle program. (author)

amphibious forces - A force composed primarily of ground and rotary-wing air units organized, equipped, and trained for amphibious operations. (JP 3-18)

amphibious forcible entry operations - A military operation launched from the sea by an amphibious force, embarked in ships or craft with the primary purpose of introducing a landing force ashore to seize and hold a military lodgment in the face of armed opposition. (JP 3-18 & author).

amphibious operations - A military operation launched from the sea by an amphibious force, embarked in ships or craft with the primary purpose of introducing a landing force ashore to accomplish the assigned mission. (JP 1-02. SOURCE: JP 3-02)

amphibious ready group - A group of warships known as an amphibious task force (ATF)—and a landing force (LF) of United States Marines (and occasionally United States Army troops), in total about 5,000 people. Together, these elements and supporting units are trained, organized, and equipped to perform amphibious operations. (globalsecurity.com)

amphibious warfare presentation team – Former team of USMC professionals tasked to educate capabilities and resources of amphibious forces to the joint force and its commanders. (Bittner)

anti-access, area denial – Concept where strategies or barriers oppose or prevent desired use or entry to a specific region, theater, or location. (globalsecurity.com)

assault - In an amphibious operation, the period of time between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. (JP 3-02)

choke point - A narrow passage, such as a strait, through which shipping must pass. (freedictionary.com)

cyberspace - A global domain within the information environment consisting of the interdependent network of information technology infrastructures, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers. (CJCS CM-0363-08)

expeditionary fighting vehicle - Replacement program for USMC aging amphibious assault vehicle fleet that was cancelled due to cost overruns. (globalsecurity.com)

expeditionary forces - Force-in-readiness that is manned, trained, and equipped specifically to respond quickly to a broad variety of crises and conflicts across the full range of military operations anywhere in the world. (MCDP-3).

expeditionary strike group - Concept introduced in the U.S. military in the early 1990s, based on the Naval Expeditionary Task Force. These amphibious forces allow US naval fleets to provide highly movable and self-sustaining forces for missions in various parts of the globe. They include surface warships and submarine escorts, similar to a carrier battle group. (globalsecurity.org)

forcible entry - Seizing and holding of a military lodgment in the face of armed opposition. (JP 3-18)

integrated air defense system - Enemy air defense that combines multiple systems and functions to achieve overall synergistic effects; can cause prohibitive interference from antiaircraft artillery (AAA) and enemy air and missile threats that deny freedom of action to opposing forces. (JP 3-01).

joint - Connotes activities, operations, organizations, etc., in which elements of two or more Military Departments participate. (JP 1)

landing force - A Marine Corps or Army task organization formed to conduct amphibious operations. The landing force, together with the amphibious task force and other forces, constitute the amphibious force. Also called LF. (JP 3-02)

littorals - The littoral comprises two segments of operational environment: 1. Seaward: the area from the open ocean to the shore, which must be controlled to support operations ashore. 2. Landward: the area inland from the shore that can be supported and defended directly from the sea. (JP 2-01.3)

lodgement - A designated area in a hostile or potentially hostile operational area that, when seized and held, makes the continuous landing of troops and materiel possible and provides maneuver space for subsequent operations. (JP 3-02)

marine air ground task force - A balanced, air-ground combined arms task organization of Marine Corps forces under a single commander, structured to accomplish a specific mission. It is the Marine Corps' organization for missions across the range of military operations. It is designed to fight while having the ability to prevent conflicts and control crisis. MAGTFs are flexible, task-organized forces that are capable of responding rapidly to a broad range of crisis and conflict situations. (FMST 1102).

marine expeditionary unit – Smallest, permanently standing MAGTF, based on a USMC infantry battalion reinforced with aviation and logistical support units. (globalsecurity.com)

marine personnel carrier – Potential replacement for AAV ashore to transport Marines in support of land operations. (globalsecurity.com)

maritime - Connected with the sea in relation to navigation, shipping, etc. (freedictionary.com)

operational maneuver from the sea – Amphibious concept of projection of naval power ashore focusing on maneuver warfare and detailed coordination among naval expeditionary forces. (USN, OMFTS).

ship to objective maneuver - A method for conducting an amphibious assault from over the horizon to achieve operational objectives deep inland, while avoiding the establishment of an “iron mountain” of logistics at the beachhead. (STOM, USMC, 2011).

single naval battle - A unifying concept for naval operations that envisions the maritime and littoral domains as an indivisible whole through which an integrated naval force can seamlessly achieve sea control and littoral power projection effects. From force aggregation to combat employment, a single naval battle approach seeks to link the elements of naval power projection into the design of a single naval campaign. It is premised on approaching the maritime domain as a singular battlespace, containing land, sea and air components. (Ellis Group)

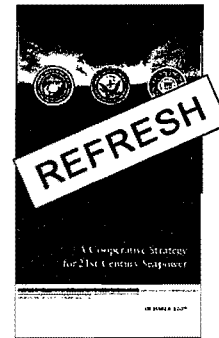
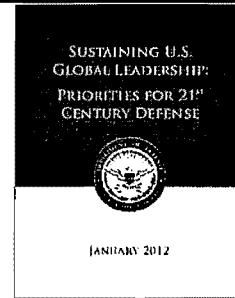
APPENDIX C:

Marine Corps “Ellis Group,” Amphibious Capability Working Group Out-brief, January 2012.



Target Opportunity

- **Strategic Guidance** reinforces central role of littoral access, security in global commons
 - Demand: Innovative, Low-Cost, Small Footprint approach
 - Demand: New ways to Project Power
 - Demand: Littoral Access
- **Opportunity** to define how we will fight as a naval force in the 21st century -- operational and institutional challenges:
 - Emerging threats (A2 / AD and Irregular)
 - Tailored relevance to the COCOM fight
 - Fiscal austerity
 - Training as we Fight
- **ACWG Problem-Framing** effort outlines service vector that is:
 - Affordable
 - Sustainable
 - Integrated with the Navy and the Joint force

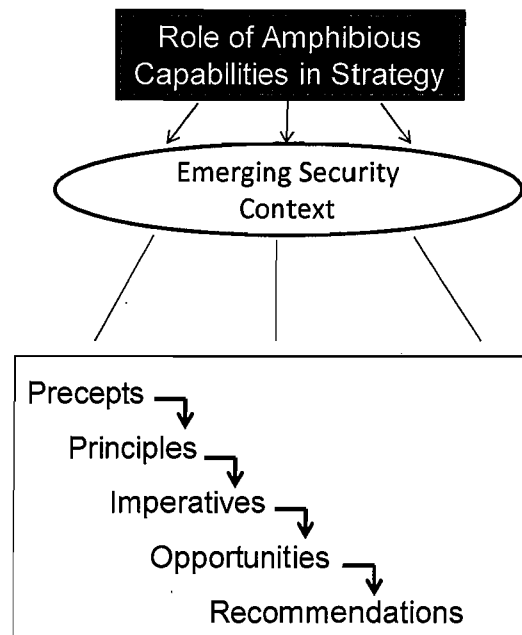


Challenge in Fiscal Austerity: Not to just do less of the same, but to innovate in entirely new ways



Problem Framing

- Understand the role of amphibious operations in strategy (ends)
- Use the emerging security context to assess 'how' amphibious capabilities (means) would be employed (ways)
- Through wargaming, assess existing and alternative methodologies & operating assumptions
- Formulate operating principles and concepts for amphibious operations
- Extract institutional imperatives and opportunities for more effective.
- Align imperatives and opportunities into specific recommendations
- Identify mechanisms for further refinement and transition of amphibious advocacy.



2/26/2012

3



Amphibious Operations - Findings

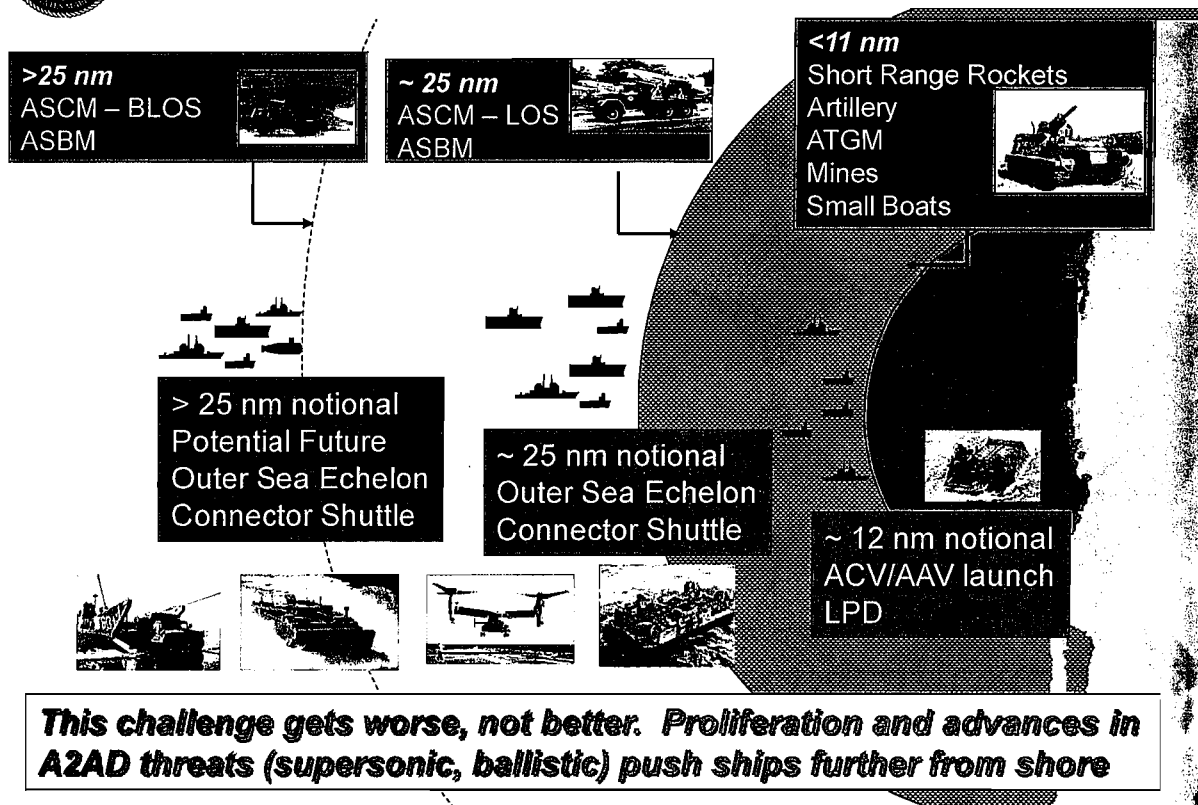
- The **Capability** for forcible entry provides **Deterrence** and **Asymmetric** advantage
- Our operating concepts are valid, but depend on **Littoral Maneuver** capability
- **Surface connectors are a critical dependency** to the current and future force; interoperability of connectors and in-stream launch/recovery are key capabilities
- An **operationalized seabase and lift concepts** for steady state operations makes us expeditionary, and ensures **continued relevance of prepositioned** afloat resources
- Most amphibious operations require **force projection** from the sea rather than opposed amphibious assault ('forcible entry' includes both)
- **Crisis response capabilities** of forward deployed forces are primary
- There are multiple methods to achieve **landing site superiority** (maneuver, avoidance, envelopment, offset, deception)
- In opposed amphibious forcible entry, there are **viable alternatives** to a linear frontal assault, but some threat scenarios are not easily 'offset' or enveloped
- **Joint condition setting** enhances amphibious viability against conventional defenses
- **'Detect and Bypass'** is a first principle for mines (afloat and ashore); multi-mode littoral maneuver makes that possible
- **'Relevant'** combat power metrics based on threat and conditions are important
- Operations ashore make up most of the mission profile (jungle, mountains, urban, desert, bridges, roads, waterways) and should play a key role in vehicle strategies

2/25/2012

4



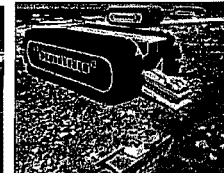
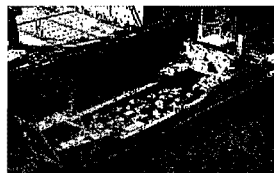
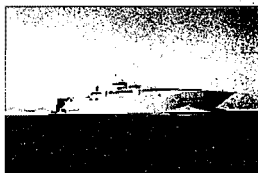
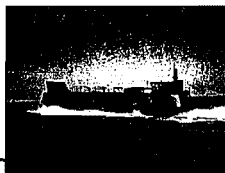
Littoral Maneuver, Emerging Threats





Littoral Maneuver & Mobility

- Future operating environment differs from the past
 - Legacy CONOPs reflect an era of greater amphibious lift capacity
 - A2/AD impacts on closure distance for amphibians in assault
 - MAGTF ACE capabilities much more robust than before
- Flexible MAGTF maneuver is a key attribute, enabled through a variety of employment options
 - ACV will be employed in a similar role as the AAV
 - Connector fleets remain a critical dependency regardless of vehicle fleet
 - Operationalized seabase, MLP, JHSV, TAK-E, modern connectors
- CONOP refinement required
 - Leverage Joint Shaping effects on the enemy
 - Achieve balance with vehicles optimized for operations ashore
 - STOM and DO capabilities (ITV, LSV, ATV)
 - Two-way CONOPs for strikes/raids/non-persistent presence ashore



2/25/2011



Single Naval Battle

Definition. A unifying concept for naval operations that envisions the maritime and littoral domains as an indivisible whole through which an integrated naval force can seamlessly achieve sea control and littoral power projection effects.

Purpose. The purpose of this concept is to remove perceived seams in the application of naval power. From force aggregation to combat employment, a single naval battle approach seeks to link the elements of naval power projection into the design of a single naval campaign. It is premised on approaching the maritime domain as a singular battlespace, containing land, sea and air components.

The single naval battle approach allows the naval component to apply force with flexibility and precision, using its inherent multi-domain (air, sea, land, cyber, sub) asymmetries.



A Desired Service Vector

Achievement of a Marine Corps & Navy team that can...

- ***Respond swiftly to crisis*** where citizens, allies, or interests are threatened
- Fight a naval campaign with a ***single naval battle approach*** in any operating environment – especially modern anti-access at sea and in the littorals
- Present an effective ***multi-domain force*** against complex and difficult enemies – hybrid, proxy, irregular, conventional
- ***Smoothly integrate with Joint*** capabilities, including Special Operations
- Conduct Sea Control and Littoral Power Projection -- ***Seamlessly***
- ***Innovate new capabilities in Power Projection*** through Littoral Maneuver, OMFTS, Enhanced MAGTF Operations
- Enhance MAGTF mobility, survivability and lethality ashore
- ***Measure progress*** toward Service vision and objectives



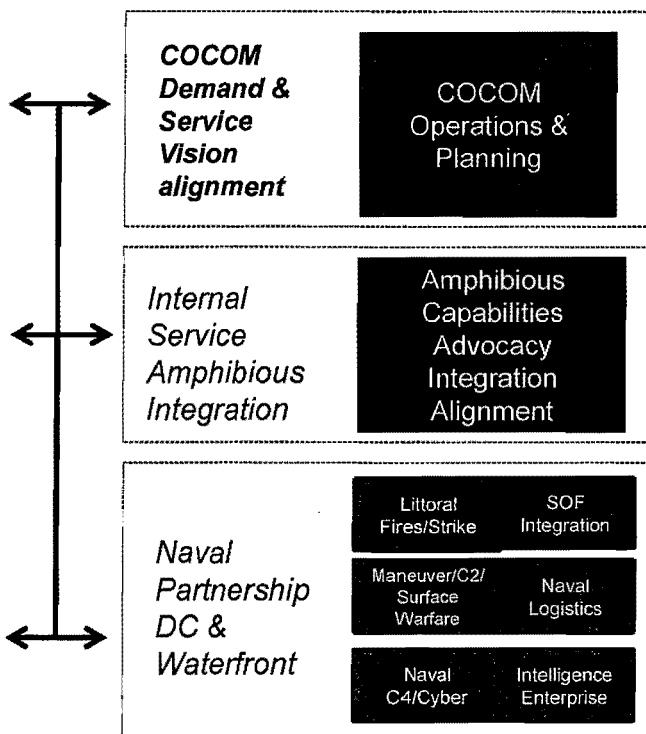
Post-ACWG Implementation Tasks

- Plan, implement & track an ***Institutional approach*** to amphibious capabilities
- Ensure coordinated ***engagement with the Navy*** at multiple echelons
- ***Focused campaign of wargaming, experimentation and analysis for CONOP validation, MAGTF composition and investment support***
- ***Assess vehicle mix ratios and GCTVS assumptions***
- Refresh the Maritime Strategy and develop a Naval Strategic Plan that outlines a ***single naval battle approach*** guiding force development
- Conduct ***home-station wargame series*** for amphibious application and direct COCOM problem set relevance
- Establish ***engines for innovation*** within operating forces/training establishment
- Develop concepts for ***operationalizing the seabase*** through alternative lift and connector combinations
- Create ***naval expeditionary system*** that includes flexible task-organized MAGTFs integrated with all functional naval pillars
- Integrate experimentation that directly informs service capability development
- Conduct high-fidelity naval wargames and analysis focused on COCOM demand to immediately shore-up external understanding of MAGTF capabilities
- Refine ***littoral maneuver*** concepts including Connector and MCM assessment, Naval Small Boat capability development
- Coordinate with Navy in planning for amphibious enablers



Implementation Proposals

1. Structure/charter **Ellis Group** planning cell to work in concert with USN N00X on aligning service capabilities to discrete COCOM challenges and opportunities (STO/SAP)
2. Form **ACWG Transition Team** largely from within DC, CD&I (others as able) to champion service transition. Leads an organizational OPT to implement and track service transition
3. ACWG transition team develops **coordinated approach to naval partnership**. Considers potential for shared naval partnership entity (co-equal Navy/USMC) in Beltway and on the Waterfront to align doctrine, concepts, training, exercises and capabilities



APPENDIX D: *Fiscal Advantages of Amphibious Forces*

Fiscally, the Marine Corps' mission provides cost efficiency within budget constraints, while still allowing the US the required force it demands for national security. As tasked by Congress, the Marine Corps is set "to be most ready when the nation is least ready."¹ The Marine Corps, in conjunction with the US Navy, represents a current force that fulfills the nations demand for a flexible posture for crisis management and rapid response. In conjunction with its amphibious forces and forward deployed presence, the USMC represents the nation's highest force in readiness. With this capability already present, "it would not be cost-effective or strategically advisable for every military service to reorient itself into an expeditionary crisis-response force, and this would be an unnecessary expense since the US already owns the finest capability."² Further explaining the fiscal rational for the Marine Corps, Groen states, "For 7.8% of the DoD budget (FY 11), the USMC provides 15% of the nation's active ground maneuver brigades, 19% of its attack helicopters, 12% of its fighter/attack aircraft, and seven flexible and scalable Marine Expeditionary Units."³ These figures highlight both US Marine Corps capabilities and the value it represents for the nation at a fraction of the defense budget. Training another general purpose force to such a capability is possible, but such an endeavor would be unwise. It would be redundant, incurring both cost and time when such a requirement is already established and represents a sound financial investment.⁴

¹ 82nd US Congress. Amphibious Capability Warfare Group, *Report to the Commandant*, 12; Groen, interview.

² Ibid; Naler, interview.

³ Amphibious Capability Warfare Group, *Report to the Commandant*, 13.

⁴ Amphibious Capability Warfare Group, *Report to the Commandant*, 12.

APPENDIX E: USMC Amphibious Assault Vehicle Replacement Options

USMC is using money previously earmarked for the EFV on three other projects:

- **The Marine Personnel Carrier (MPC)**
- **A partial renovation of the existing Amphibious Assault Vehicle fleet**
- **Development of the Amphibious Combat Vehicle (ACV), a less-expensive next-generation amtrac.¹**

“ACV” requirements:

- The ability to autonomously deliver a Marine infantry squad from an amphibious ship to shore a minimum distance of 12 nautical miles, at “a speed to enable the element of surprise in the buildup ashore.” The notice acknowledges that a high rate of speed “may prove to be unaffordable.”
- Protection against direct and indirect fire, mines and improvised explosive devices. The protection can be modular, “applied incrementally as the situation dictates.”
- Employ open architecture principles to rapidly integrate new technologies, and be reconfigurable to carry out alternative roles, including operation of heavy mortars or rockets, and logistic or medical evacuation missions.
- Be powerful enough to engage and destroy similar vehicles, provide direct fire support to dismounted infantry and maneuver with M1A1 Abrams main battle tanks.²

“MCP” concept:

- Armored eight-wheel vehicle that will be able to swim, but not required to travel from ship to shore.
- Operate with the Corps’ amphibious assault battalions and carry eight to 10 combat-ready Marines and two crewmen
- Provide protection similar to mine-resistant ambush-protected vehicles, but perform riverine and shore-to-shore operations, enabling troops on land to cross a bay or lake to sneak up on an enemy force.
- Offering mobility in moderate surfs with enough armor to protect troops on the ground from most improvised explosive devices.
- Demonstrate the water mobility in terms of achieving speeds greater than 5 knots.³

¹ Dan Lamonthe, “Corps Continues to Push for Armored 8-Wheeler,” Marine Times, 15 October 2011, <http://www.marinecorpstimes.com/news/2011/10/marine-corps-continues-push-personnel-carrier-101511w/> (accessed 30 November 2011).

² Christopher P. Cavas, “Corps Seeks New Ideas for Amphibious Vehicles,” Marine Times, 21 February 2012. <http://www.marinecorpstimes.com/news/2011/02/defense-marines-ideas-for-new-vehicles-022111/> (accessed 26 February 2012).

³ Lamonthe, “Corps Continues to Push for Armored 8-Wheeler.”

APPENDIX F: *Cyber Considerations in Forcible Entry Operations*

Cyberspace and its application to global access is an entirely new topic that should be reserved for an separate thesis. For this reason, discussions relevant to access and forcible entry relating to cyberspace are contained in this appendix; however, the author notes that the cyberspace domain will be an important part of the Joint Force's planning regarding forcible entry in the future.

Just as air superiority is not discussed here in detail (because it is required before amphibious forces can operate in certain environments) there must be "cyber" superiority for the Joint Force to operate. The degrees of the cyber freedom and access are dictated by the JFC and the capabilities of the Joint Force to operate in a cyber degraded environment.

Cyber Access and National Security

Protecting the virtual cyber domain, in addition to physical domains, is required according to US national strategies. In the NSS, President Obama states that "cyber security threats represent one of the most serious national security, public safety, and economic challenges we face as a nation."¹ This challenge effects access. Cyber criminals attempt to deceive and usurp power from global US military and commercial networks upon which the many systems that support the economy and the military depend. While not a domain in the sense of land, sea, or air, cyber has emerged as a new and very vulnerable domain. The US must protect its ability to operate there. The NSS explains why it is so important: "Our digital infrastructure is a strategic national asset and protecting it—while safeguarding privacy and civil liberties—is a national security priority. We will deter, prevent, detect, defend against, and quickly recover from cyber intrusions and attacks."² President Obama makes it clear that the ability of the US to operate in the cyber domain is essential; he then has directed the military to assist in this endeavor. The NMS thus states, "We will be prepared to demonstrate the will and commit the resources needed to oppose any nation's actions that jeopardize access to and use of cyberspace, or that threaten the security of our allies."³ Access in the cyber domain has rapidly become an additional access mission that the US must accomplish as set in the NSS and NMS. Therefore, the joint force is now tasked with protecting access to the virtual cyber domain, in addition to the physical domains.

Cyber and Anti-Access, Area Denial

While not included in G-RAMM, of equal concern to enemy A2AD capability is the denial of access to cyberspace. Defense columnist Mackenzie Eaglen states, "In the future, it is not ridiculous to imagine a scenario where an enemy power could take an entire American installation such as Guam offline with a single cyber attack."⁴ Cyber access denial means that networks, GPS satellites, and computers that are vital to US defense systems could be attacked, preventing their use by loss of connectivity. Denial to the cyber domain by an enemy can involve deployed US military forces and defense networks in the continental US are vulnerable as well.

Cyber and Forcible Entry

In addition to ASB, the final discussion on forcible entry must be that of cyber domain access. Forcible cyber entry and the use of cyber attacks do not fit well into many other kinetic discussions simply because the concept is not mentioned in JP 3-18. This domain is unique in that it does not represent traditional terrain or a geographic location. Also, the cyber realm, its laws and rights, are not clearly defined. Defending US networks and systems in this domain is not the same as shooting in self defense if a belligerent attacks US soil.⁵

How is the cyber domain viewed in the light of forcible entry? Colonel Naler contends that cyber will be part of future of forcible entry, just like overcoming physical barriers, cyber barriers will require neutralization capability for the future joint force. He states, "A cyber penetration to shut down 'box X' which controls an IAD, followed by an airborne strike to the North, then a surface strike to the South"⁶ may be forcible entry of the future. But this concept is not new. Consider the words of former CMC General Krulak who said, "in future conflicts, data lines of communication may be just as important as sea lines of communication."⁷ Joint forces must thus consider all aspects of the enemy's integrated systems that represent their ability to deny access to the US. According to the ACWG co-chairs, there is a rapidly increasing realm to forcible entry in the cyber realm.⁸ To take matters further, cyber attacks as part of forcible entry capability may take the place of kinetic attacks. During forcible entry operations,

USMC cyber network operations officers may “gain and maintain access to and control of Cyber to deliver and support forcible entry forces as well as follow-on forces.”⁹

This realm is where cyber meets “forcible entry.” The issues raised may cause the definition to change, or at least the way it is approached. The cyber domain suggests a broader and more inclusive approach to JAFEO than what is in the currently applied.¹⁰ With all these A2AD threats to access, including the cyber threat, the reasons joint amphibious forces need a forcible entry capability seem well justified.

¹ National Security Strategy, 2010, 27.

² National Security Strategy, 2010, 28.

³ National Military Strategy, 2011, 14.

⁴ Eaglen, *New Pentagon Strategy*.

⁵ The JAG Core: Defense and Intelligence Placement, *Cyber network Operations LDO*, <http://www.jagcore.com/news/cyber-network-operations-ldo.htm>. 01 July 2011. (accessed 18 February 2012).

⁶ Naler, interview.

⁷ The JAG Core, *Cyber network Operations LDO*

⁸ Naler and Groen interviews.

⁹ The JAG Core, *Cyber network Operations LDO*; Joint Publication 3-18, ix.

¹⁰ Ibid.

Bibliographic Essay

The following essay is intended to suggest sources for those interested in the future of amphibious warfare, its place in the overall joint perspective, and its application given national strategy and potential conflict locations. This topic is highly contemporary and sources are published on a weekly basis; this discussion is not meant to be comprehensive, merely to offer perspective for the nature of this paper and potential direction for any subsequent research as amphibious operations and forcible entry operations continue to evolve.

United States Marine Corps Amphibious Concepts and Research

Most of the research conducted here was a result of direct contact with the USMC Amphibious Capability Working Group, or "Ellis Group." This group represents the most current feedback on the rapidly evolving approach to "reacquainting" the US Naval services with amphibious operations. The co-chairmen, Colonels Chris Naler and Michael Groen, are available for any questions. The USMC CMC, General Amos, has many briefs that were useful as well, e.g. those given to Congress, the Surface Navy Association Symposium, and the Institute for Defense and Government Advancement. Reference the upcoming conference for amphibious operations as a source for future data. The current publication for joint amphibious operations, *U.S. Joint Publication 3-02: Amphibious Operations*, is in draft form and was used for this paper; however, the Ellis Group should be further queried to how it will change as they are the primary drivers for its future content and direction. Much was gained by such research in periodicals here as well, in the *Marine Corps Times* and the *Marine Corps Gazette*.

Joint Forcible Entry Doctrine

Air Sea Battle is the newest Joint Access Operational Concept that combines the USAF and the USN in efforts to grant access to US forces where it is contested. General Norton A. Schwartz, Chief of Staff of the US Air Force, has many speeches that are located online for review. These speeches are wonderful in that they are numerous and articulate well the perspective of the USAF to the ASB concept. The Joint Publication, 3-18: *Joint Forcible Entry*, remains a good source conceptually, but consideration should be given to using it as a base for ASB, the main strategic driver for the topic. Also reference Single Naval Battle as spoken of by the Ellis Group. This concept integrates USMC and USN roles, although not considered joint in theory; much can be learned from SNB as wargames have offered many lessons learned. Continue to search statements by the DoD leadership that may give clues to the direction the budget may be headed. This awareness can be achieved by constantly scanning the *Washington Post*, and other newspapers and professional journals, to include the *Marine Corps Times*, *Marine Corps Gazette*, *Proceedings*, *JFQ*, and other professional literature.

Potential Future Threats

This paper does not attempt to make China or any other nation into a sinister force for the purposes of creating a new US foe. China is a factor however in how the US will posture its defense forces around the globe. Most Chinese sources come from the internet in the form of blogs or websites, as they offer the most current information or offer the best sources. The best were *china-signpost.com* and *china-defense-mashup.com* as they offered commentary by well respected authors. They also

provided sources for further research, such as regional newspapers accessible via the internet. Africa was also researched and Mark Yeisley offered great comments, but provided an even better source in *Strategicstudiesquarterly@maxwell.af.mil*. Online research in this direction seemed to give the best and most current results. Data on Iran was found more in secondary sources such as news websites. While Iran may be threat for different reasons, such as WMD, these were not the primary scope of this paper. All threat force structures were confirmed via Jane's data or other websites such as Sinodefense.com, etc.

National Strategy

National Strategy was available but many updates were published during the time frame when research began for the paper in early 2011. The most current references, in addition to the NSS and NMS, are the JOAC and *Sustaining US Global Leadership: Priorities for 21st Century Defense*, both signed in January 2012. The former documents give the most current guidance as to the shape of the national focus for defense. Look for amplification in future professional journals and periodicals.

Periodicals, websites, professional journals, newspapers as used for contemporary topics

With contemporary topics, comes the requirement for contemporary sources. Few are more contemporary than those in this genre. Nothing can substitute a simple Google web search to get ideas about where to look. Wikipedia may not be acceptable for citation directly, but offers sources that can be directly researched by anyone seeking more information on amphibious forcible entry. Professional journals are very good in this sense as they offer credible authors. Finding data is usually easy, but finding a credible source that supports an argument is more challenging. The sources used in this paper were found by researching the topic first, then researching the authors of the articles deemed relevant. This approach was used to build the strongest proof for the paper.

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