

STRATEGIC SHAPING CAPABILITY OF THE AMPHIBIOUS FORCE:
THE CASE FOR CAPITAL SHIP STATUS
FOR THE AMPHIBIOUS FLEET

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fulfillment of the requirements for the
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MASTERS OF MILITARY ART AND SCIENCE
General Studies

by

JAMES M. GEIGER III, MAJOR, USMC
B.A., University of South Carolina, Columbia, South Carolina, 2004

Fort Leavenworth, Kansas
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Name of Candidate: James M. Geiger, III

Thesis Title: Strategic Shaping Capability of the Amphibious Force: The Case for
Capital Ship Status for the Amphibious Fleet

Approved by:

_____, Thesis Committee Chair
Dennis S. Burket, EdD

_____, Member
Commander David L. Stebbins, M.S.

_____, Member
Wilburn E. Meador Jr., M.A.

Accepted this 14th day of June 2019 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

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ABSTRACT

CAPITAL SHIP STATUS FOR THE AMPHIBIOUS FLEET AND THE STRATEGIC SHAPING CAPABILITY OF THE AMPHIBIOUS FORCE, by Major James M. Geiger III, 92 pages.

US Navy amphibious ship shortfalls threaten the ability of maritime forces to meet current and future operational requirements. The post-Cold War era is characterized by a marked increase in the use of Amphibious Ready Groups with embarked Marine Expeditionary Units as the preferred crisis and contingency response force. Despite this trend, resource prioritization to the amphibious fleet is lacking when compared to current capital ship vessel programs. The increasingly contested nature of the global commons places United States power projection capabilities at risk. The current and future operating environment requires capacity that exceeds the amphibious ship inventory. Amphibious forces provide operational flexibility and directly support strategic shaping activities. A renewed focus on modernizing and maintaining the amphibious fleet is required to achieve the objectives outlined in current and emerging operating concepts and support national strategic interests.

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ACRONYMS

ARG	Amphibious Ready Group
ATF	Amphibious Task Force
A2AD	Anti-Access Area Denial
CSG	Carrier Strike Group
DOD	Department of Defense
DOTMLPF-P	Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policies
EABO	Expeditionary Advanced Based Operations
ESG	Expeditionary Strike Group
JFMCC	Joint Force Maritime Component Commander
JP	Joint Publication
LHA	Landing Helicopter Assault (Amphibious Assault Ship General Purpose)
LHD	Landing Helicopter Dock (Amphibious Assault Ship Multi-Purpose)
LCS	Littoral Combat Ship
LOCE	Littoral Operations in a Contested Environment
LPD	Amphibious Transport Dock
LSCO	Large Scale Combat Operations
MAGTF	Marine Air Ground Task Force
MEB	Marine Expeditionary Brigade
MEU	Marine Expeditionary Unit
MOC	Marine Operating Concept
NDS	National Defense Strategy
NNN	Navy the Nation Needs

NSS	National Security Strategy
POTUS	President of the United States

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CHAPTER 1

INTRODUCTION

A landing on a foreign coast in the face of hostile troops has always been one of the most difficult operations of war.

— Captain Sir Basil H. Liddell Hart,
The Defense of Britain

The United States influences the international security environment in diverse ways. The instruments of national power: Diplomatic, Information, Military and Economic, provide the pathways to project power and shape that environment. Further, these instruments allow a nation to achieve its national objectives and strategic ends. The most visible of these instruments is often the military. Diplomatic and economic influence do not have the same level of visibility as military platforms and forces. In terms of the military as an instrument of national power, projecting the force and the ability to influence abroad relies on sourcing naval assets and capabilities viewed by both our allies and competitors as critical to sea control and power projection.

The cliché is used to this day, at least in academic environments, that during times of conflict or crisis response, the President of the United States (POTUS) asks the question, “where are the carriers?” Is this still accurate in the modern operating environment? Are there forces and assets better suited for crisis and contingency response while representing less of a high value target to our adversaries? Further, as the United States prepares itself for renewed “Great Power Competition,” is there a critical capacity shortfall in the naval inventory that needs to be addressed? As contested domains continue to be protected by increasingly sophisticated weapon systems there may be a corresponding hesitancy to deploy high-signature assets like a Carrier Strike Group

(CSG) to littoral areas. Access to the global commons continues to destabilize as strategic competitors challenge freedom of navigation. One of the most visible and capable power projection platforms, amphibious forces supported by medium and short-range defenses, are well suited to project naval power over the horizon and will continue to play a critical role in meeting the nation's strategic ends.

Background

United States Marines and those Sailors associated with the amphibious fleet have the benefit of being embarked aboard naval shipping and witness first-hand the responsiveness and capability of the Amphibious Ready Group (ARG) with embarked Marine Expeditionary Unit (MEU) and Expeditionary Strike Group (ESG). The Marine Corps has the benefit of being focused on both the land and maritime domain. Not all in the national security profession enjoy the benefit of this context. As a result, there is often a continuing, and at times, uninformed debate regarding the need of maintaining a military branch that specializes in expeditionary and amphibious operations. Further, there are many, even in the maritime services who advocate for a focus on the traditional vessels that give the “Blue Water” Navy its primary battle force. This research seeks to make the case for the “Green Water” and “Gator” Navy (those naval forces that have the capacity to carry out operations in the littoral as well as open ocean environments) as a critical component of the overall force projection capabilities of the United States.

Throughout modern history, navies dedicate resources, doctrine, and tactics around the idea of employing or supporting a capital ship. The characteristics of this ship are typically defined by significant firepower, size, or the ability to project power often being directly related to tonnage or number of guns. In the years leading up to and

including World War I, destroyers and battleships were recognized as the primary surface combatant of great-power navies. While this remained true through World War II, a clear transition of focus shifted to leveraging aircraft carriers to conduct power projection by providing offensive air support and strike capabilities. The need for strategic deterrence persisted through the Cold War. This period saw the rise of the aircraft carrier with the addition of the sub-surface fleet as America's new capital ships. However, in the years following the Cold War, the deployment of amphibious task forces (ATFs) rapidly outpaced the number of commitments of CSGs.

The shift in the international security environment following the post-Cold War era is identified by many as a “unipolar” era for the United States.¹ This precipitated refinement in the strategic requirements of the United States. The bi-polar environment of the United States in competition with the Soviet Union for global power and influence shaped the militaries of both nations into vast, conventionally-focused militaries. Specifically, the focus on the development of the “nuclear triad”, which includes land-based missile systems, sub-surface naval delivery systems, and air delivered munitions.² This significantly informed priorities for manning, training, and equipping the military and the capabilities of the modern US Navy. The post-Cold War era, often identified as having begun in the late 1980s and early 1990s saw a marked reduction in the use of the US military for furthering overt political and ideological goals as focus shifted to

¹ Ronald O'Rourke, *A Shift in the International Security Environment: Potential Implications for Defense—Issues for Congress* (Washington, DC: Congressional Research Service, 2018).

² Encyclopedia Britannica, “Nuclear Triad,” accessed 14 January 2019, <https://www.britannica.com/topic/nuclear-triad>.

leveraging soft power measures to gain regional and strategic influence. Central to this shift was the leveraging of amphibious forces capable of not only controlling sea lines of communication, but bringing with it the ability to project ashore a force capable of executing a wide range of operations.

Amphibious ships are often considered the “workhorse of the fleet,”³ they provide a breadth of capabilities unique to the amphibious fleet and provide operational and strategic flexibility for the combatant and joint force commander. Following the Cold War and continuing through the mid-2000s, the official operational goal for amphibious ship inventory was reduced from the ability to carry an assault echelon of two and a half Marine Expeditionary Brigades (MEB) to just two;⁴ the reality is this number is likely lower when factoring in maintenance and re-fit cycles. Ultimately, the Navy and Marine Corps do not currently have the amphibious ships necessary to maintain crisis and contingency response and be prepared to support any large-scale combat operations (LSCO) that may emerge.

Problem Statement

Resource allocation to the Navy’s amphibious shipping fleet and associated systems is lacking in terms of fiscal prioritization when compared to the aircraft carrier sub-surface fleet, and select surface combatants. However, in the post-Cold War era

³ Sean Stackley, Assistant Secretary of the Navy, *Testimony before the Department of Defense Authorization of Appropriations for Fiscal Year 2015, U.S. Senate Subcommittee on Seapower* (Washington, DC: Government Printing Office, 10 April 2014), 14.

⁴ Maren Leed, *Amphibious Shipping Shortfalls: Risks and Opportunities to Bridge the Gap* (Washington, DC: Center for Strategic and International Studies, 2014).

through the development of the modern operating environment, there exists a sharp rise in the employment of the ARG⁵ or ESG. Naval amphibious shipping is not able to meet the operations requirements of the Navy or Marine maritime force (associated with the 2.0 MEB requirement). There exists a resource gap when you compare the expenditure of time, money, and organizational focus dedicated to other vessel programs in contrast to amphibious shipping. In the modern era, strategic access should be thought of in terms beyond sea control and deterrence. Through that context, the ESG or ARG contribute substantively to strategic-shaping activities. “Capital” assets translate into higher expenditures of resources and focus at the highest levels of defense decision making. Is the United States now operating in a global security environment where select vessels within the Navy’s amphibious fleet deserve capital ship status?

Research Questions

This study focuses on one primary research question and four secondary research questions. The primary research question is: Is the amphibious fleet resourced commensurate with its strategic capabilities to meet current and future requirements through 2025? Is it time to recognize select amphibious vessels of the amphibious fleet as capital ships?

The secondary research questions of this paper will focus on the unique contribution of amphibious shipping to the ability of the maritime force to conduct strategic-shaping activities. Additionally, the questions seek to highlight the criticality of

⁵ An ARG consists of three ships, typically an LHA or LHD accompanied by an LPD and Dock Landing Ship. They are the primary transport for the MEU.

the amphibious force to the execution of key Joint, Navy, and Marine Corps operating concepts.

Secondary Research Question #1

What is the current resource gap between the amphibious fleet and traditional capital ship vessels and programs?

Secondary Research Question #2

What is the ability of the amphibious fleet with embarked forces to execute strategic-shaping activities?

Secondary Research Question #3

How critical is the amphibious fleet to emerging operating concepts such as Expeditionary Advance Base Operations? How will the amphibious fleet allow the maritime force to achieve the goals of the Marine Operating Concept (MOC)?

Secondary Research Question #4

In the modern operating environment what is the comparison of operational commitment of ARG, MEU, and ESG to crises and limited contingency operations in contrast to the CSG? It will be important to define “modern” operating environment. This research work will focus on 1991 to present.

Extended Background

The modern operating environment is not likely to see a reduction in the demand for the capabilities provided by amphibious shipping and their embarked assets and personnel. Projected warfighting capabilities of all services were undoubtedly informed

by requirements. The manner in which determinations were made regarding inventory levels for the amphibious force is a function of four major variables: (1) Defense Strategy and the Marine Corps' contribution to that strategy; (2) spending priorities; (3) operational concepts; and (4) Marine Corps force structure, equipment size, and weight.⁶ Given the release of updated operating concepts coupled with a shift of focus within the service back to amphibious operations, it is critical to recognize the central role of amphibious shipping to future operational success. Amphibious shipping shortfalls are widely recognized across the maritime force and attempts are currently being made to bridge the gap. The establishment of land-based Special Purpose MAGTFs as well as the embarking of Marines on a variety of vessels outside of the ships of the ARG are all measures taken to address the lack of available shipping to meet requirements.

Scope

It is important to identify the boundaries and focus of this work. This research did not consider the entirety of all amphibious ships in the US inventory. It focuses on the amphibious ships that are the foundation of the ARG. Emphasis is placed on what are known as “big deck” Amphibious Assault Ships (LHA or LHD), as well as “small deck” Amphibious Transport Dock (LPD), and Dock Landing Ship as these represent the ships with the largest spectrum of operational capability. Further, the research will peripherally include discussion of the Littoral Combat Ship (LCS)⁷ as a vessel capable of providing

⁶ Leed, *Amphibious Shipping Shortfalls*, 2.

⁷ The LCS is a modular, multi-role surface combatant. Depending on the sensors and systems the LCS is equipped with it can execute a broad range of tasks. In this

significant flexibility to the amphibious force. While not an amphibious vessel, given its shallow draft, hanger bay, modularity, and potential weapons systems it is critical to enabling sea control in semi-permissible to low-level contested littorals. This work does not address the current operational issues preventing the LCS from being used to its full capability. Fully understanding there is significant need for improvement in operability, this work includes concept of a ship that provides the capability sought by the LCS. Arguably, Large Medium-Speed Roll-On - Roll-Off ships such as the T-AK and Container and Rolling Stock Class (T-AKR) could be viewed as operationally critical. However, these ships exceed the scope of the definition of a capital asset as applied to this research. While they provide critical support, they are not providing a critical kinetic asset and are unable to execute surface or air power projection in a semi-contested environment. In terms of the Navy vessels to use as a comparison, this research will focus on what have become the top three capital programs: the aircraft carrier, the submarine, and the Aegis Guided Cruiser and Destroyers.

This work will also attempt to examine both the “hard” and “soft” power projection provided by the amphibious fleet. The hard power aspect refers to the execution of the kinetic end of the spectrum of operations (amphibious assaults, raids, and strikes). The soft power addresses power projection and strategic access gained through the execution of those expeditionary operations on the low end of the spectrum of conflict such as Humanitarian Assistance and Disaster Relief, Non-Combatant Evacuation Operations, Missions of State, and other non-combat operations.

context, it is important to note that it has a hangar bay to support air operations and has a small craft launch and recovery capability.

Limitations

This research paper does not set out to advocate the replacement of any aspect of the US Navy in their primary roles. Further, there is no attempt to claim supremacy of one naval vessel over the other. Rather, the purpose is to highlight the strategic utility of the amphibious force and provide evidence that fiscal and resource imbalance exist when examining the strategic return on investment provided by amphibious shipping. Aircraft carriers, the sub-surface fleet, and amphibious shipping provide such unique capabilities that it would be a false dichotomy to compare them against one another in the context of duplicating their role. Instead this research seeks to show the complementary nature of the amphibious force to the power projection and sea control competencies of the Navy and Marine Corps team as the maritime force. The true end state is to advocate for capital ship status for the amphibious fleet as capital status equals capital investment.

The Capital Ship

While there exist no current formal criteria to define a vessel as a capital ship, there are historical and modern contexts that provide insight into bringing precision to the term. Further, this is a term that still appears in the current lexicon. The earliest official quantification of the term “capital ship” appears to be the 1922 Washington Treaty.⁸ The Washington Treaty defines capital ships in terms of displacement tonnage and armament. Specifically, it states: “A surface vessel of war, the standard displacement of which exceeds 10,000 tons or with a gun above 8 inches in calibre.”

⁸ Donald Birn, “Open Diplomacy at the Washington Conference of 1921-2: The British and French Experience,” *Comparative Studies in Society and History* 12, no. 3 (July 1970): 297-319.

William Lind defines a capital ship in terms of capability in the context of the entire naval force, “if the capital ships are beaten, the navy is beaten. But if the rest of the navy is beaten, the capital ships can still operate.”⁹ This research paper will apply the broader, conceptual definition to describe the capital ship category. Further, it will expand the scope of critical elements to include the investment of national resources. A capital ship provides the United States a strategically and operationally critical asset. Traditionally, destroyers, cruisers, aircraft carriers, and submarines are described as belonging to the capital ship classification. This paper seeks to illustrate that amphibious ships, especially the Landing Helicopter Dock (LHD) or Landing Helicopter Assault (LHA) possess all the requisite criteria to be identified as capital ships. There are many that argue the LHA or LHD already enjoys this classification when considering the loss to the ARG it would represent. However, the other aspect of capital ship status is the resource, focus, and prioritization it receives when the entirety of the battle fleet is considered.

The interwar period of 1918 to 1941 saw the rise of conventional power focus and the solidification of capital ship theory.¹⁰ This theory, based on certain Mahanian concepts that forward the idea that decisive naval engagements would be fought between the locus of power between two navies (capital ships). Mahan basically advocated that the concentrated fire of the battle fleet is the principle means by which naval power is

⁹ Gary Hart and William Lind, *America Can Win: The Case for Military Reform* (Chevy Chase, MD: Adler and Adler, 1986), 90.

¹⁰ R. B. Watts, *American Sea Power and the Obsolescence of Capital Ship Theory* (Jefferson, NC: McFarland and Company, 2016), 40.

asserted, the preferred target of such fire is the enemy's fleet.”¹¹ This view is one that predicated the evolution of the primacy of the modern sea control vessels. Mahan downplayed the role of navies in operations ashore warning the Navy could be subsumed into the Army. This influenced generations of Naval leaders. Mahan was skeptical of the efficacy of amphibious operations during this period and felt they were secondary activities, subordinate to the ability of the US Navy to defeat its “blue water” competitors.¹²

Access to the littorals and maritime global commons is increasingly contested. Regional powers like China continue to test international freedom of navigation laws. Anti-Access and Area Denial (A2AD) activities and weapon systems are growing increasingly sophisticated. Cruise missile and other coastal defense capabilities are inhibiting high-value naval vessels' freedom of movement in locations where the United States needs to project power. The threat to traditional means of power projection, such as the CSG, is reaching levels where alternative means must be identified and cultivated in order to modernize the maritime force and ensure that we do not fall victim to system overmatch in the maritime domain.

The relevance of this research quickly comes to focus when viewed in the context of an increasingly unstable global operating environment coupled with a renewed focus

¹¹ Philip A. Crowl, “Alfred Thayer Mahan: The Naval Historian,” in *Makers of Modern Strategy. From Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton, NJ: Princeton University Press, 1986), 458.

¹² Dr. Milan Vego, *Naval Classical Thinkers and Operational Art* (Newport, RI: US Naval War College, 2009), 4.

on the potential of atrophy in core competencies.¹³ Just as there was a shift in strategic requirements following the Cold War, the United States is again moving into a new international security environment. The past years of the United States' participation in counter-insurgency operations, while vital to developing timeless capability, shaped the way in which the services manned, trained, and equipped for the current conflict.

Definitions

Throughout this research the term “maritime” will be used extensively. In this context, “maritime” includes all naval activities to include littoral areas. Additionally, “maritime forces” specifically refer to the US Navy and Marine Corps. There may be times when the term is used generically to reference an amphibious force. For example, a Landing Force is defined by joint doctrine as “a Marine Corps or Army task organization formed to conduct amphibious operations.”¹⁴ However much of this paper focuses the use of naval shipping in reference to the US maritime force. Another term used throughout this research is “battle force.” This term refers to the total inventory of vessels that are: commissioned United States Ship (USS) capable of contributing to combat operations, or a US Naval Ship that contributes directly to Navy warfighting or support missions.¹⁵

¹³ President of the United States, *National Security Strategy of the United States of America* (Washington, DC: Government Printing Office, December 2017).

¹⁴ Chairman of the Joint Chiefs of Staff, Joint Publication (JP) 3-02, *Amphibious Operations* (Washington, DC: Government Printing Office, July 2019), I-1.

¹⁵ Secretary of the Navy, “SECNAV Instruction 5030 BC, General Guidance for the Classification of Naval Vessels and Battle Force Ship Counting Procedures” (Memorandum, Secretary of the Navy, Washington, DC, 14 June 2016).

The term “seabasing” will be used to address the idea of conducting operational maneuver from the sea. The sustainment requirements associated with this concept often seek a solution through the use of the Navy’s amphibious fleet. Beyond just the shipping associated with the ARG, amphibious ships located within the Maritime Prepositioning Squadrons will be heavily leveraged to establish the sea base. “High-end warfare” will be used interchangeably with “large-scale.” These terms are meant to communicate conflict that is high intensity, technologically sophisticated warfare against peer competitors or asymmetric threats that engage conventional forces.

Summary

Emerging Navy and Marine Corps operating concepts continually reference the importance of the amphibious surface fleet and in fact, rely on extensive use of amphibious capabilities. This research seeks to objectively analyze the materiel and training realities of the maritime services to posture for execution of these concepts. The maritime domain is becoming increasingly contested. Adversaries are developing capabilities to threaten our dominance in the global commons.¹⁶

The next chapter constitutes the literature review for this research. It will outline in detail the data critical to answering the primary and secondary research questions. Further, it identifies the primary concepts and themes that exist in the prevailing literature on the subject. The literature review will also provide detailed context of national and service-level priorities in terms of defense capability requirements. Finally, the literature

¹⁶ Department of the Navy, *Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21st Century* (Washington, DC: Government Printing Office, 2016).

review provides the foundation for chapter 4 where an analysis of the qualitative data will be conducted.

CHAPTER 2

LITERATURE REVIEW

The United States must retain overmatch-the combination of capabilities in sufficient scale to prevent enemy success and ensure that America's sons and daughters will never be in a fair fight.

— President of the United States,
National Security Strategy of the United States of America

Introduction

The literature review regarding this topic is somewhat extensive. The research subject matter is a constant topic of debate among national security leadership and the broader defense community. Further, this subject matter is of particular relevance as the United States struggles to determine the best way to man, train, and equip the amphibious force in an emerging era of Great Power competition. As a result, there was no shortage of material for review. This chapter includes both original research conducted by the author as well as introduction of research already conducted regarding the subject. This chapter is organized in coordination with the secondary research questions. It is divided into five sub-sections. These include: (1) What does the Nation Want and Need, (2) Doctrinal Foundations, (3) Comparison of Resource Allocation, (4) The Current and Future Operating Environment, and (5) Emerging Operating Concepts and Large-Scale Combat Requirements.

Ultimately, this research sought to answer the primary research question: Is the amphibious fleet resourced commensurate with its strategic capabilities to meet current requirements through 2025? Is it time to recognize selected vessels in the amphibious fleet as capital ships?

What Does the Nation Need? Examining Strategic Guidance

The leadership of the United States significantly shapes its military priorities and by extension its capabilities? In order to answer the stated research questions related to strategic ends and capabilities, it is critical to understand what the current leadership of the United States and Department of Defense state those ends to be. An examination of the *National Security Strategy (NSS)* and *National Defense Strategy (NDS)* provide direct guidance from POTUS and senior defense officials. The guidance provided in these strategic documents provides the basis for identifying the criticality of amphibious shipping to strategic-shaping activities. Additionally, studies and reports from the Congressional Research Service provides detailed summaries provided to inform decision making for elected legislators at the national level.

The NSS characterizes the world as increasingly contested in areas the United States once enjoyed unchallenged supremacy. It specifically identifies future competition in the areas of politics, economics, information, data, and the military by traditional adversaries as well as non-state actors, violent extremist organizations, and transnational criminal organizations.¹⁷ Further, it outlines the criticality of advancing American influence through focusing on security cooperation with allies and leveraging a rebuilt military to deter threats and protect interests abroad.¹⁸

Pillar Three of the NSS focuses on the United States ability to “Preserve Peace Through Strength.” It addresses the need to maintain the nation’s competitive advantages

¹⁷ President of the United States, *National Security Strategy*, 3.

¹⁸ *Ibid.*, 4-5.

over “revisionist powers” of China and Russia as well as the “rogue nations” of Iran and North Korea.¹⁹ Directly related to the deterrence of major threats is the priority to ensure common domains remain free. This includes traditional commons, such as global maritime trade routes in addition to modern conceptualization of “commons” like cyber space.²⁰

Truly linking the NSS to the criticality of maritime capabilities is Pillar Four: Strategy in a Regional Context. The Indo-Pacific theater provides a current example of geopolitical competition of two competing world views. Included in the region are many of the US historical allies, making it a critical area of focus. Further, the gradualism of Chinese aggression in the South China Sea threatens regional stability, the rule of international law, and relations with our ally Taiwan.²¹

The unclassified summary of the *2018 NDS* reinforces several key concepts regarding the need for robust amphibious capabilities. It outlines the changing complexity of the international security environment as well as the Department of Defense’s (DOD’s) objectives in the immediate future.²² It further addresses the drivers of change in the current operating environment and priorities for maintaining a favorable balance of power globally.

¹⁹ President of the United States, *National Security Strategy*, 25-26.

²⁰ *Ibid.*, 41-42.

²¹ *Ibid.*, 45-47.

²² Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military’s Competitive Edge* (Washington, DC: Government Printing Office, 2018).

First and foremost, the *NDS* identifies the reemergence of the revisionist powers of China and Russia as a significant challenge as the United States transitions out of a period of “strategic atrophy” and erosion of our military advantage. China continually challenges freedom of navigation in global commons through militarization of the South China Sea. Russia is currently conducting similar activities with intent to increase their ability to project naval power abroad. The annexation of Crimea by the Russian Federation represents the most recent in an escalating sequence of events expanding the Russian sphere of influence.²³

Directly related to the future of amphibious capabilities, the *NDS* outlines the need to build a more lethal and capable force. This not only includes the physical means with which the nation projects power, but the strengthening relationship we have with allies and working to improve their capabilities. One of the primary platforms through which our military projects power globally is through amphibious forces. The ability of combatant commanders to call upon pre-positioned, ready forces able to operate across a broad spectrum of conflict is integral for the United States to project power globally.

Outlined in the *NDS* are objectives directly in support of the NSS that the DOD sees critical to maintaining a favorable balance of power for the United States.

Specifically, the document outlines 11 defense objectives that include:

1. Defending the homeland from attack;
2. Sustaining Joint Force military advantaged, both globally and in key regions;
3. Deterring adversaries from aggression against our vital interests;

²³ Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America*, 3-5.

4. Enabling U.S. interagency counterparts to advance U.S. influence and interests;
5. Maintaining favorable regional balances of power in the Indo-Pacific, Europe, the Middle East, and the Western Hemisphere;
6. Defending allies from military aggression and bolstering partners against coercion, and fairly sharing responsibilities for common defense;
7. Dissuading, preventing, or deterring state adversaries and non-state actors from acquiring, proliferating, or using weapons of mass destruction;
8. Preventing terrorists from directing or supporting external operations against the United States homeland and our citizens, allies, and partners overseas;
9. Ensuring common domains remain open and free;
10. Continuously delivering performance with affordability and speed as we change Departmental mindset, culture, and management systems; and
11. Establishing an unmatched twenty-first century National Security Innovation Base that effectively supports Department operations and sustains security and solvency.²⁴

With few exceptions, the goals established by the *NDS* are directly related to, if not dependent on a robust amphibious capability.

The *NDS* speak directly to the need for the United States to “modernize key capabilities.” It goes on to identify “joint lethality in contested environments” as a critical aspect of modernizing critical capabilities.²⁵ The ability of the DOD to project power and leverage joint force capabilities will require amphibious platforms that can deliver low signature forces to seize limited objectives. Additionally, the *NDS* addresses the need to not only continue to develop relationships with allies, but build partner capacity.

Historically, a common purpose of MEUs embarked aboard amphibious shipping conduct

²⁴ Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America*, 4.

²⁵ *Ibid.*, 6.

bi-lateral training exercises. Further, the mere presence of US amphibious vessels with an embarked amphibious force sends a strategic shaping message to our allies and adversaries.

A final aspect of the *NDS* worth exploring is the identification of the Global Operating Model. This model describes how the Joint Force will be postured and employed to achieve, “its competition and wartime missions . . . includes. It identifies four layers of the operational environment: contact, blunt, surge, and homeland.²⁶ Those forces in the contact layer are those “designed to help us compete more effectively below the level of armed conflict.” Those forces in the blunt layer, “delay, degrade, or deny adversary aggression.” Finally, surge layer forces are “war-winning forces” able to “manage conflict escalation.” These concepts are particularly relevant for the Navy and Marine Corps as the forces that largely comprise the contact and blunt layer.

Ultimately, critical strategic guidance identify that the United States is entering a new era of competition. They further characterize the globally security environment as one that the United States finds itself being contested where once we had unlimited freedom of maneuver. A common theme among both documents address the fact that change is necessary and the need is urgent. Both documents discuss the importance of ensuring a favorable balance of power exists for our armed forces. In many cases POTUS and Secretary of Defense are looking for military overmatch.

²⁶ Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America*, 7.

Doctrinal Foundations

Doctrine not only provides precision with regard to terminology; it provides insight it informs and codifies the manner in our organizations approach warfighting. Joint and service doctrine became an early focus of this research to provide the point of departure when discussing concepts. Further, a study of doctrine provides insight into the criticality of the specific contribution amphibious shipping provides in terms of joint operations. Beyond simply providing another option to conduct forcible entry, current doctrine repeatedly addressed the importance to establishing sea control and power projection through amphibious means.

Joint Publication (JP) research focused heavily in the Operations Series. These included JP 3-02, *Amphibious Operations*, JP 3-04, *Joint shipboard Helicopter and Tiltrotor Aircraft Operations*, JP 3-16, *Multinational Operations*, JP 3-18, *Joint Forcible Entry Operations*, JP 3-32 *Command and Control of Joint Maritime Operations*, and JP 3-68, *Noncombatant Evacuation Operations*. However, as secondary research questions address the reliance on amphibious shipping to increase operational reach, the Logistics Series was referenced as well. Specifically, JP 4-0, *Joint Logistics* and JP 4-01.6, *Joint Logistics over the Shore*. All provided the current working joint terminology relating to the conduct of amphibious operations. For the purpose of this research work, attention was mainly focused on JP 3-02 and applicable service doctrine that addresses amphibious operations.

The key characteristics of amphibious operations as outlined in JP 3-02 identify close coordination between the ATF and Landing Force, gaining and maintaining access,

task organization based on mission, and unity of effort.²⁷ All facets that make the employment of a force embarked on amphibious shipping the ideal military capability. AFs can alleviate political and logistical burdens on host nations or allies as a result of a reduced footprint ashore.²⁸

When attempting to link current operational requirements to capabilities an examination of the scope of operations executed by an amphibious force is critical. The five types of amphibious operations include: (1) raids, (2) amphibious demonstrations, (3) amphibious assault, (4) withdrawal, and (5) AF support to crisis response and other operations.²⁹ These operations apply to a breadth of mission across the Range of Military Operations. Even with a cursory review of the types of operations one can gain an appreciation for the capability this provides the joint force commander or combatant commander. Further, beyond simply the operational flexibility amphibious operations provide, a source of persistent crisis response capacity responsive to the needs of the Combatant Commander.

Amphibious raids facilitate the destruction of targets not easily destroyed by other means. Political concerns regarding collateral damage may make a limited, low-density raid the most effective option. Further, these raids can facilitate the destruction of critical infrastructure, capture of key personnel, or collect information.³⁰ Raids can be focused at

²⁷ Chairman Joint Chiefs of Staff, JP 3-02, *Amphibious Operations*.

²⁸ *Ibid.*, xi-xii.

²⁹ *Ibid.*, II-1.

³⁰ *Ibid.*, II-1 – II-3.

targets at the tactical, operational, or strategic level. Often conducted in conjunction with diversionary raids, amphibious demonstrations can be critical to achieving operational surprise. A contemporary example of the operational utility of amphibious demonstrations is the AF assembled to provide depth to deception activities. This ATF operated off the coast of Kuwait and conducted large-scale rehearsals. Most notably the landing of 8,000 Marines on the coast of Oman in conjunction with carrier air and naval surface fire support mission. The end result was the continued assumption by Iraqi commanders that the main effort attack of the coalition would be an amphibious assault. It is believed that this fixed six infantry division along the coast while the true main effort was able to achieve operational surprise during its attack into Iraq.³¹

The most difficult amphibious operation is the amphibious assault. It is also likely what most people associate to amphibious operations despite it being the aberration rather than the norm. Having said that, when it is necessary to quickly build combat power ashore and introduce a significant land force into a theater of operations, an assault may be required.³² Conversely when looking to extract combat power from a theater of operations, an amphibious withdrawal may be the most effective method. Multiple variables may dictate the need to employ this operation: enemy pressure, lack of availability of other strategic lift assets, or simply the physical characteristics of the operating environment. In addition to the military application of the withdrawal is it becomes an option for assisting with the evacuation of non-combatants during

³¹ Chairman Joint Chiefs of Staff, JP 3-02, *Amphibious Operations*, II-7.

³² Ibid, II-12 – II-13.

Humanitarian Assistance and Disaster Relief operations. Amphibious withdrawal became critical during the Korean War to withdrawal pressured forces from Hungnam.

Additionally, United Nations forces were extracted from Mogadishu, Somalia in 1995 by an ATF.³³

The more prevalent amphibious operations, especially in the context of the post-Cold War era is amphibious forces support to crisis response and other operations. AFs routinely conduct FHA, Non-combatant Evacuation Operations, peace support, and recovery operations. The primary means through which these operations are executed is the ARG and MEU. The unique task-organized elements of the ARG and MEU are tailored and trained to conduct these operations. JP3-02 states, “The ability to operate from a seabase reduces the overall footprint ashore, thus reducing the potential diplomatic impact, as well as . . . the threat to the force.”³⁴ It goes on to state that amphibious support to crisis response is, “critical to achieve national objectives as quickly as possible and conclude operations on terms favorable to the US and its allies.” Ultimately, the importance of amphibious operations to executing operational and strategic shaping activities is a common theme throughout JP 3-02, *Amphibious Operations*.

Service doctrine further provides critical insight as to how amphibious shipping related to overall employment of the joint force. This research does not provide significant detail directly from each services doctrine but highlights the fact that all

³³ Chairman Joint Chiefs of Staff, JP 3-02, *Amphibious Operations*, II-14.

³⁴ Ibid., II-16.

services develop doctrine that involves integration with an amphibious force. Doctrinally, the US Army could provide the Landing Force, as such they do have doctrine that is directly related to amphibious operations. Further, as the service proponent for theater-level logistics, the US Army is responsible for addressing theater opening and closing, which involves extensive use of amphibious support platforms.

While this research works sought to limit the focus to current doctrine, it would be remiss not to start with what arguably was the impetus for the Marine Corps to become the amphibious force it is today. *The Tentative Manual for Landing Operations* of 1934 initiated major fleet landing exercises.³⁵ The Marine Corps serves as the service proponent for amphibious operations across the DOD. Marine Corps doctrine provided significant context for the way in which the Marine Air Ground Task Force (MAGTF) integrates into the amphibious fleet. Many aspects of the current organization and employment of the amphibious force can trace their origins back to this document and the environment and people and their interactions during the time of its development.

Comparison of Resource Allocation

Integral to answering the research questions is identifying the existence of an imbalance with regard to the allocation of resources to the amphibious fleet in contrast to the rest of the Navy. As this research work is being concluded, news from the Navy with regard to budget priorities continued to indicate a subordination of amphibious ships as the Navy renews focus on its open water capabilities. In fact, the most current budget

³⁵ Williamson Murray and Allan Millet, *A War to Be Won: Fighting the Second World War* (Boston, MA: The Belknap Press of Harvard University Press, 2000).

proposal being placed before congress includes an indefinite delay of the LPD Flight II upgrade in favor of a third Virginia-class attack submarine.³⁶ A spokeswoman for the Navy Lt. Lauren Chatmas states, “Through the lens of the National Defense Strategy’s focus on great power competition, the Navy prioritized the offensive capabilities of other ship classes.” Further, the Navy is making the conscious decision to adjust shipbuilding plans such that the 38-amphibious ship requirement may not be met until FY40. The upgrade to the LPD Flight II is critical to the modernization of the delay in reaching the amphibious ship requirement only degrades US amphibious capabilities.

Current Status of the Fleet

Prior to addressing the fiscal distribution, it is important to identify and understand the current shortfalls in amphibious shipping. Where is the current inventory, and what is necessary? The Marine Corps in conjunction with the Navy identified 38 as the total inventory required for the amphibious fleet to accomplish its purpose. The amphibious fleet is currently sourced to 32 ships. This total number is somewhat misleading as at any one point you have a portion of the entire inventory conducting routine or unplanned maintenance. At this time of the 32 amphibious ships in the inventory, only 16 are able to support operations at any one time.³⁷

³⁶ Megan Eckstein, “LPD Flight II Amphib Delayed in Favor of 3rd Attack Sub in FY2020,” *United States Naval Institute News*, 14 March 2019, accessed 15 March 2019, <https://news.usni.org/2019/03/14/lpd-flight-ii-amphib-delayed-favor-3rd-attack-sub-fy-2020>.

³⁷ The Heritage Foundation, *An Assessment of U.S. Military Power: U.S. Marine Corps* (Washington, DC: The Heritage Foundation, 2018), accessed 14 April 2019, <https://www.heritage.org/military-strength/assessment-us-military-power/us-marine-corps>

Strategic amphibious capability is based on its ability to support Joint Forcible Entry through providing two MEB Assault Echelons. To fully support emerging operational requirements, the Navy should be able to source the shipping required to embark a standard MEB identifying however, that this concept is being increasingly questioned as the force development aim point. Many address the fact that the changing operational environment demands a distributed, dispersed, or disaggregated approach.³⁸

An overall analysis of the Navy's allocation of budget resources should start with the understanding the fact that the while the Navy continues to enjoy an increase in budget, Navy Force Structure, measured by the total number of ships in the fleet declined by 9 percent between FY2001 and FY 2010.³⁹ Outlined in a report to Congress, the Chief of Naval Operations focused on the development of the Navy the Nation Needs (NNN). In the report, the Chief of Naval Operations articulates that surface combatants and attack submarine requiring substantial refinement to meet emerging requirements.⁴⁰

³⁸ LtCol Scott Cuomo, Capt Olivia Gerard, Maj Jeff Cummings, and LtCol Noah Spataro, "Not Yet Openly at War, But Still Mostly at Peace: Exploit the Opportunity to become the 21st Century Force that our Nation Needs," *Marine Corps Gazette* (February 2018): WE 6-21, accessed 30 April, 2019, <https://mca-marines.org/wp-content/uploads/2019/02/Cuomo.pdf>.

³⁹ Todd Harrison and Seamus P. Daniels, "Analysis of the FY 2019 Defense Budget" (Report, CSIS International Security Projects Defense Outlook Series, Center for Strategic and International Studies, New York, 2018).

⁴⁰ Office of the Chief of Naval Operations, *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2019* (Washington, DC: Government Printing Office, February 2018).

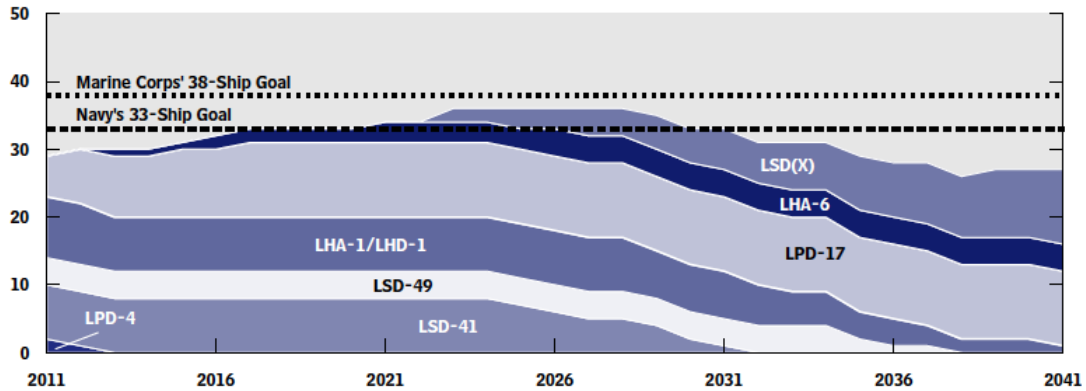


Figure 1. Inventory of Amphibious Warfare Ships

Source: Congressional Budget Office, “An Analysis of the Navy’s Amphibious Warfare Ships for Deploying Marines Overseas” (CBO Study, Congressional Budget Office, Washington, DC, 2011), 8.

The report to Congress continues to provide the projected ship-building plan to support achieving the NNN. It is important to get an understanding of where the Navy is projecting the end strength of the NNN. This gives both the context of where we are and where we need to go. Tables 1 and 2 represent the identification of and projection for completion of the 355 ship Navy acquisitions are moving towards. Of note, the NNN identifies 38 as the total end strength in terms of amphibious ships required for the NNN. This meets previously determined end strength goals for the amphibious fleet, but potentially may not meet the operational realities of the amphibious force. Specifically, when taking into account the fact the AF may be fighting in a contested environment.

Table 1. Navy the Nation Needs

Type	NNN
Ballistic Missile Submarine	12
Aircraft Carriers	12
Attack Submarines	66
Large, Multi-Mission, Surface Combatants	104
Small, Multi-Role, Surface Combatants	52
Amphibious Warfare Ships	38
Combat Logistic Force (CLF)	32
Command and Support	39
Total	355

Source: Naval Sea Systems Command, *Report to Congress on The Long-Range Plan for Maintenance and Modernization of Naval Vessels for Fiscal Year 2020* (Washington, DC: Department of the Navy, 2019), 2.

Table 2. Projected Battle Force Inventory

Fiscal Year	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Aircraft Carrier	11	11	11	11	12	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	11	10	10	10	11	10	10	9
Large Surface Combatant	90	92	95	98	99	101	106	106	105	105	106	106	107	105	106	105	106	104	104	104	104	104	104	104	105	107	108	108	109	107	107
Small Surface Combatant	27	31	34	37	35	39	33	33	34	36	38	40	42	44	46	48	50	53	55	55	56	55	57	56	55	55	53	53	53	53	52
Attack Submarines	51	52	53	52	52	51	48	46	45	45	45	48	49	51	52	54	55	57	59	59	59	59	59	59	61	61	62	63	64	65	66
Cruise Missile Submarines	4	4	4	4	4	4	4	4	2	1																1	1	1	2	2	2
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	13	13	12	11	11	11	11	11	11	11	10	10	10	10	10	11	12	12	12	12	12	12	12
Amphibious Warfare Ships	32	33	33	34	34	35	37	37	38	37	38	39	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	38	37
Combat Logistics Force	29	29	29	30	31	31	32	32	32	32	32	32	31	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Support Vessels	31	33	35	34	39	41	41	42	42	43	43	43	43	42	43	43	43	44	44	44	42	41	40	40	39	39	39	39	39	39	39
Total Naval Force Inventory	289	299	308	314	320	328	327	325	323	323	326	331	333	335	340	343	347	351	355	354	353	350	350	351	352	355	355	357	359	358	356

Source: Ronald O'Rourke, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress* (Washington, DC: Congressional Research Service, 2018), 17.

The total inventory of amphibious ships is calculated by examining the rate at which new ships will be built, how long existing ships will be kept in service examined in the context of other factors. During the 2000s, the amphibious ship inventory dropped due to “mid-life” upgrades. Figure 1 provides a visual representation of the total amphibious inventory. Additionally, it provides the reference point of where the Navy and the Marine Corps identify as the target for total inventory. Note the lower number,

figure 2 shows the steady decline of the total amphibious fleet with a pronounced descent starting in 2006. Even upon reaching the projected inventory following implementation of current shipbuilding plans by 2020 the total inventory is projected to remain below 35.

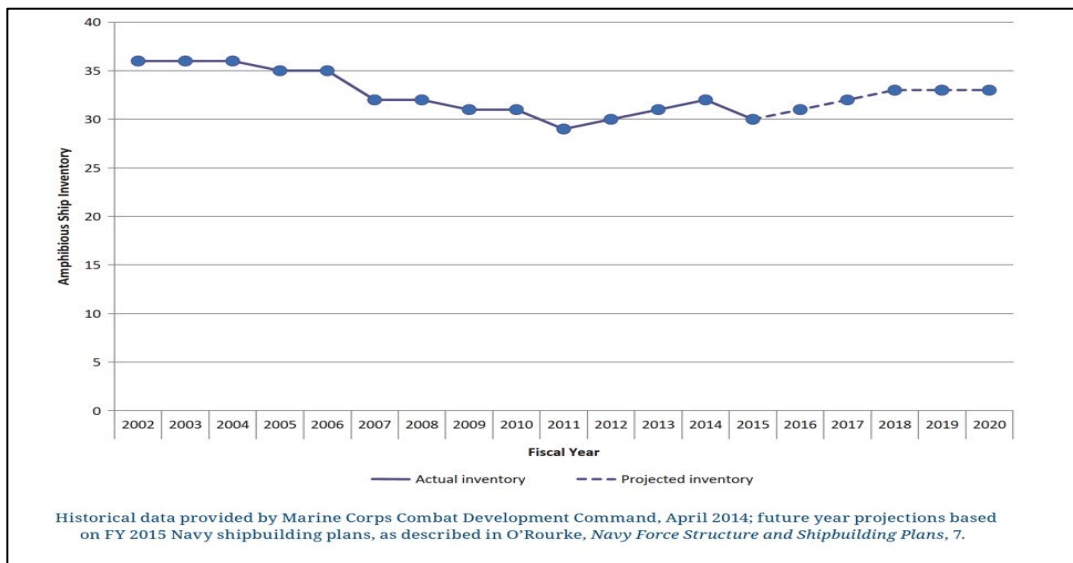


Figure 2. Amphibious Ship Inventory Trend

Source: Maren Leed, *Amphibious Shipping Shortfalls: Risks and Opportunities to Bridge the Gap* (Washington, DC: Center for Strategic and International Studies, 2014), 9.

Fiscal

The stated end state of the US Navy Fiscal Year 2020 (FY20) budget of \$205.6 billion is to reverse the erosion of our military advantage with regard to naval forces. This budget is heavily informed by the stated goals of the NSS and NDS and signals the

recognition that the Navy is returning to a period of “Great Power Competition.”⁴¹ Further, it identifies the need for the Navy to balance capabilities across, “platforms like ships, aircraft, and weapons” while making choices regarding the discontinued use of legacy systems.⁴² However, before taking a detailed look into the distribution of the budget it is important to note what it states as the total increase in battle force ships. “In FY20, 10 battle force ships will be delivered: 4 Destroyers, 3 Nuclear Attack Submarines (SSN), 2 Littoral Combat Ships, and 1 Expeditionary Fast Transport; additionally, 5 battle force ships will be retired: 2 SSNs and 3 Mine Warfare ships.”⁴³ While there is an added layer of complexity when examining ship procurement and building plans, it is notable that of all the vessel programs discussed in this research only two LCSs will be funded for procurement and addition to the battle fleet. The Navy’s most recent shipbuilding plans place significant focus on attack submarines and large surface combatants (see figures 3 and 4).

⁴¹ Department of the Navy, *Highlights of the Department of the Navy FY 2020* (Washington, DC: Government Printing Office, 2019).

⁴² Ibid., 1-1 –1-8.

⁴³ Ibid., reverse of cover.

Ship Type	2017 Shipbuilding Plan	2019 Shipbuilding Plan	Difference
Aircraft Carriers	6	7	1
Ballistic Missile Submarines	12	12	0
Large Payload Submarines or SSGN(X)	0	5	5
Attack Submarines	44	60	16
Large Surface Combatants (CGs/DDGs)	66	76	10
Small Surface Combatants (LCSs/FFGs)	58	57	-1
Amphibious Warfare Ships	23	28	5
Logistics and Support Ships	<u>45</u>	<u>56</u>	<u>11</u>
Total	254	301	47

Figure 3. Ship Purchases, 30-Year Plan (2017 to 2019 changes)

Source: Eric J. Labs, “The 2019 Outlook for Navy Shipbuilding” ((Presentation, Bank of America Merrill Lynch Defense Outlook Forum, Washington, DC, 9 January 2019), 11.

Figure 4 provides the 2019 update to the 30-year shipbuilding plan effectively projecting ship procurement that is funded through 2023. Of note is the continued trend of attack submarine and large surface combatant acquisition. This coupled with an overall net loss in small surface combatants and no gain or loss in amphibious warfare ships.

Ship Type	2017 Shipbuilding Plan	2019 Shipbuilding Plan	Difference
Aircraft Carriers	1	1	0
Ballistic Missile Submarines	1	1	0
Large Payload Submarines or SSGN(X)	0	0	0
Attack Submarines	9	10	1
Large Surface Combatants (CGs/DDGs)	10	14	4
Small Surface Combatants (LCSs/FFGs)	8	7	-1
Amphibious Warfare Ships	3	3	0
Logistics and Support Ships	<u>12</u>	<u>18</u>	<u>6</u>
Total	44	54	10

Figure 4. Ship Purchases Under the 2019 Shipbuilding Plans (2019 to 2023)

Source: Eric J. Labs, “The 2019 Outlook for Navy Shipbuilding” (Presentation, Bank of America Merrill Lynch Defense Outlook Forum, Washington, DC, 9 January 2019), 12.

Ship procurement is the one of the most visible aspects of resource distribution through 2024 (see figure 5). The current plan only provides for the procurement of two amphibious ships, the LPD Flight II. Other expenditures relative to amphibious capabilities all focus on support vessels like the Expeditionary Sea Base (ESB) and Expeditionary Fast Transport (EPF). Given the high number of surface combatant and SSN that the priority of the near-term procurement plan is “Blue Water” capacity. Figure 5 provides the procurement quantities and total funding from FY 2020 through FY 2024.

(Dollars in Billions)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY20-24
New Construction:							
Columbia Class Submarine	-	-	1	-	-	1	2
CVN 78 (Ford class)	-	1	-	-	-	-	1
SSN 774 (Virginia class)	2	3	2	2	2	2	11
DDG 51	3	3	2	2	3	3	13
LCS	3	-	-	-	-	-	-
FFG (X) (SSC)	-	1	2	2	2	2	9
LHA(R)	-	-	-	-	-	1	1
LPD Flight II / LX(R)	-	-	1	-	1	-	2
Expeditionary Sea Base (ESB)	1	-	-	-	1	-	1
Expeditionary Fast Transport (EPF)	1	-	-	-	-	-	-
T-AO 205	2	2	1	1	2	1	7
T-ATS	1	2	1	1	1	-	5
T-AGOS(X)	-	-	-	1	1	1	3
New Construction Total QTY	13	12	10	9	13	11	55
New Construction Total (\$B)	\$ 22.3	\$ 22.2	\$ 20.4	\$ 18.9	\$ 23.8	\$ 23.5	\$ 108.9
Unmanned:							
Large Unmanned Surface Vessel (LUSV) ^{1,2}	-	2	2	2	2	2	10
Total Unmanned QTY	-	2	2	2	2	2	10
Total RDTE,N (\$B)	-	\$ 0.4	\$ 0.5	\$ 0.6	\$ 0.6	\$ 0.6	\$ 2.7
Other Construction:							
LCAC SLEP	1	-	-	-	-	-	-
Ship to Shore Connector	8	-	4	7	5	5	21
LCU 1700	2	4	4	4	4	4	20
CVNRCOH	-	1	-	-	-	-	1
T-ARC Cable Laying/Repair Ship	-	-	-	1	-	-	1
Other Construction Total QTY	11	5	8	12	9	9	43
Total Shipbuilding QTY	24	19	20	23	24	22	108
Total Shipbuilding, SCN only (\$B)	\$ 24.2	\$ 23.8	\$ 23.5	\$ 22.3	\$ 25.0	\$ 24.9	\$ 119.5

¹Contains offensive missile capability

²Budgeted in RDTE,N

Figure 5. Shipbuilding Procurement Quantities and Total Funding

Source: Department of the Navy, *Highlights of the Department of the Navy FY 2020 Budget* (Washington DC: Government Printing Office, 2019), 4-2.

Another aspect of the Navy and Marine Corps that relates directly to its amphibious capacity is the status of status of its surface connectors.⁴⁴ Directly visible in the FY20 budget is the reduction of funding for maintenance activities for surface connectors and specifically the Amphibious Assault Vehicle. It is important to note that

⁴⁴ “Surface connector” refers to the vessels necessary to move embarked landing forces from amphibious transport ashore. In the context of the ARG these include the LCU, Landing Craft Air Cushion, and Amphibious Assault Vehicle.

this also is partly a function of the acquisition of the Amphibious Combat Vehicle. It is also important to highlight the fact that the Marine Corps' only means to "swim" ashore in a contested or hostile environment is the legacy Amphibious Assault Vehicle, a system that is over 40 years old (1971).⁴⁵ It is only fair to point out that significant fiscal resources were made available for the procurement of the Amphibious Combat Vehicle.

The FY20 budget potentially blunts momentum gained for the amphibious community under the FY19 budget. The FY20 request pulls back on total new shipbuilding when compared to 2019 and the \$21.9 billion conversion request.⁴⁶ As such, it is not unreasonable to state that the service priorities of the Navy are aligned with the acquisition, modernization, and maintenance of other vessel programs than the amphibious fleet.

Capability

"In its amphibious fleet, the United States has a capability that no other nation can duplicate. Nations take great note any time there are 3,000 angry Marines miles off their coast."⁴⁷ The preceding quote articulates the unique asset an ATF with its embarked forces that provides the United States a powerful tool. The amphibious fleet can

⁴⁵ Congressional Research Service, *Marine Corps Amphibious Combat Vehicle (ACV): Background and Issues for Congress* (Washington, DC: Congressional Research Service, 2019), 1.

⁴⁶ Megan Eckstein, "Amphibious Community Pushes for Continued Spending Amid Worries About 2020 Shipbuilding Plan," *United States Naval Institute News*, 7 February 2019, accessed 28 April 2019, <https://news.usni.org/2019/02/07/amphibious-community-pushes-continued-spending-amid-worries-2020-shipbuilding-plan>.

⁴⁷ Jonathan Caverley and Sam Tangredi, "Amphibs in Sea Control and Power Projection," *U.S. Naval Institute Proceedings* 144, no. 4 (April 2018): 18-22.

contribute to sea control, power projection, and influence allies and aggressors alike. For the purpose of this research work, an examination of the breath of capabilities provided by amphibious shipping when compared to other vessels associated with executing sea control.

Arguably the most diverse in terms of capabilities, amphibious shipping provides the DOD a wide variety of options across the Range of Military Operations. A MAGTF embarked on its associated ARG can execute a breadth of operations that no other military formation can replicate. Further, an ESG may be formed to provide support to complex operations related to an ATF, Maritime Prepositioning Force, Logistics Over the Shore, Defense Support of Civil Authorities, and Emergency Sortie Operations. All support a full range of theater contingencies, up to and including LSCO. Figure 6 provides the core competencies provided by an ESG.

EXPEDITIONARY STRIKE GROUP MISSION AREAS															
AMW	ASW	AW	CCC	FHP	FSO	INT	IO	LOG	MIW	MOB	MOS	NCO	NSW	STW	SUW
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
AMW: Amphibious Warfare ASW: Anti-Submarine Warfare AW: Air Warfare CCC: Command Control and Communication FHP: Force Health Protection FSO: Fleet Ship Operation INT: Intelligence Operation								IO : Information Operation LOG: Logistic MIW: Mine Warfare MOB: Mobility MOS: Missions of State NCO: Non-Combat Operation NSW: Naval Special Warfare STW: Strike Warfare SUW: Surface Warfare							

Figure 6. Expeditionary Strike Group Mission Areas

Source: Expeditionary Warfare Training Group, Commander's Quick Reference: Amphibious Warfare Handbook (San Diego, CA: EWTGPAC, 2016).

Exploring the capabilities of the ESG provides an overview of what is gained through the effective pairing of the ARG with a Naval Tactical Squadron. Not only in direct support to sea control and power projection, but in terms of shaping the operational environment for surge forces tasked with high-end operations. Further, the command element of the ESG is uniquely suited to assume the role of Joint Force Maritime Component Commander (JFMCC). Beyond simply providing a vertile task-organization for execution, the ESG can serve as the nucleus of a Joint Task Force and even provide a JFMCC.

The LHA and LHD both possess a full-length flight deck and hangar bay to support aviation operations. The capability gap between the aircraft carrier and the LHA is being further eroded by the deployment of the F-35B aboard amphibious ships in support of MEU deployments. This capability eclipses the previous fixed wing capabilities of the MEU. Further, prioritization of sortie generation over range contributed to a continued decline of average range the Airwing embarked aboard a carrier can project. Changes in the aircraft type, considerations for munitions, and fuel consumption reduced the average range from a peak of 1,200 NM in 1956 to 800 in 2016.⁴⁸

The Current and Future Operating Environment

Global events have caused many in the national security profession to conclude that the international security environment is undergoing a significant change. The post-

⁴⁸ Dr. Jerry Hendrix, *Retreat from Range: The Rise and Fall of Carrier Aviation* (Washington, DC: Center for New American Security, 2015), 65.

Cold War era is giving way to renewed great power competition.⁴⁹ These events include Chinese actions in the South and East China Seas as well as Russia's seizure and annexation of Crimea in March 2014. Further, both strategic competitors continue to employ gradualism and operating in the "grey zone" (actions just short of triggering conflict) to erode the influence and power of the United States abroad.

What makes this shift in the security environment somewhat unique is that we are now facing competition in new domains (space) and facing a loss in technological superiority with regard to conventional weapon systems.⁵⁰ A major policy shift occurred in China sometime in 2012 to embark upon becoming a global maritime power. It currently has the world's largest number of coast guard vessels and in a matter of years has the potential to become the second most capable "far seas" navy.⁵¹

Overlaying the development of naval capacity in peer competitors is the existence of significant anti-access area denial (A2/AD) defensive layers further making operations in the littorals difficult. A2AD capacity brings in to question the ability of the US Navy to leverage current power projection and sea control systems without becoming victim to A2/AD weapons systems. Our primary great power competitors currently possess robust A2/AD defensive layers (see figures 7 and 8). Figure 7 depicts the access issues the US Navy have to address when discussing freedom of navigation issues in the South China Sea.

⁴⁹ O'Rourke, *A Shift in the International Security Environment*, 1-3.

⁵⁰ Ibid., 10-15.

⁵¹ Admiral Michael McDevitt, USN (Ret), "Becoming a Great "Maritime Power": A Chinese Dream" (Report, CNA Analysis and Solutions, Arlington, VA, June 2016), v.

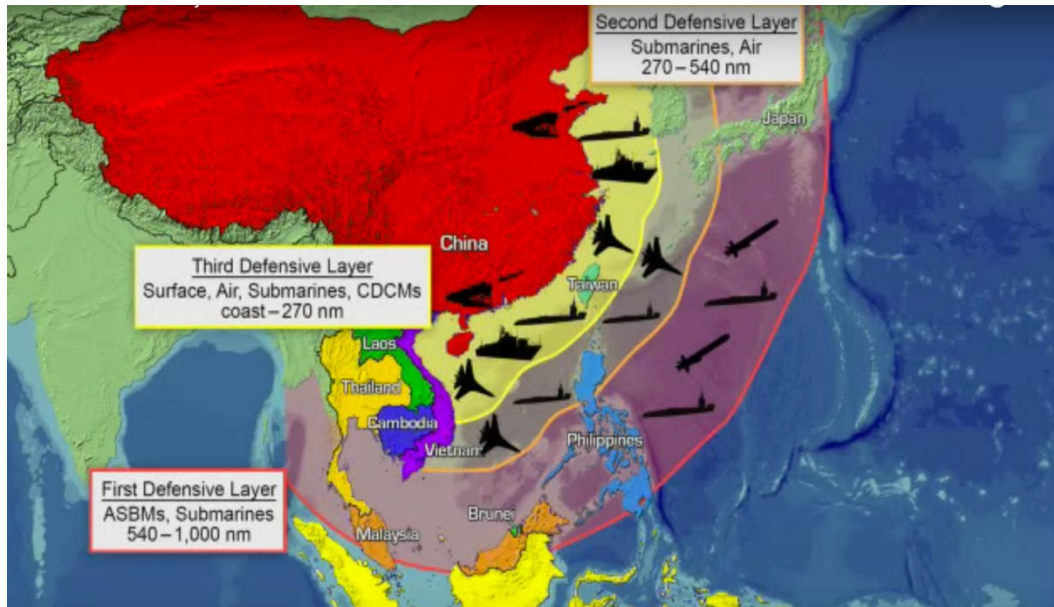


Figure 7. China's A2/AD Defensive Layers

Source: Sam LaGrone, “CNO Richardson: Navy Shelving A2/AD Acronym,” *United States Naval Institute News*, 3 October 2016, accessed 30 April 2019, <https://news.usni.org/2016/10/03/cno-richardson-navy-shelving-a2ad-acronym>.

Equally problematic is the maritime situation faced in Europe. Figure 8 shows the A2/AD environment when considering its impact on freedom of maneuver in central and eastern Europe.

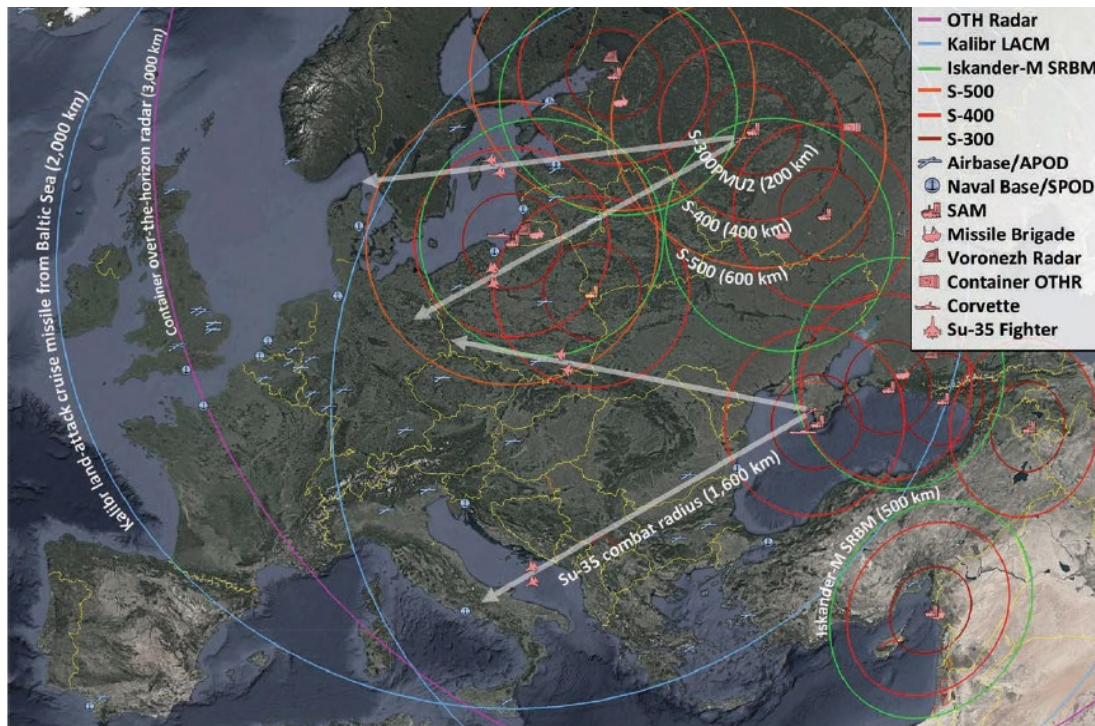


Figure 8. Russian A2/AD Coverage in the Baltic and Black Sea Regions

Source: Billy Fabian, Mark Gunzinger, Jan Van Tol, Jacob Cohn, and Gillian Evans, “Strengthening the Defense of NATO’s Eastern Frontier” (Research, Center for Strategic and Budgetary Assessments, Washington, DC, 2019), 10, accessed 28 April 2019, <https://csbaonline.org/research/publications/strengthening-the-defense-of-natos-eastern-frontier/publication>.

The major competitors of the United States recognize the importance of amphibious forces in power projection. Chinese Navy initiated significant efforts to develop an amphibious capability to employ in regional waters. Recognizing its importance to both expeditionary operations and how it relates to power projection, the development of a large and capable amphibious force.⁵² In some ways China is outpacing

⁵² BGen William J. Bowers and Dr. Christopher D. Yung, “China Has Learned the Value of Amphibious Operations,” *Proceedings* 144, no. 1 (November 2018).

the United States in critical military areas. Possibly more challenging is the “systems” warfare China seeks to employ. This is a holistic approach to fighting a peer adversary across its entire military system.

Ultimately, this new international security environment brings a renewed focus on the capacity and capabilities of the US military. Further complicating the US ability to adapt to this changing environment is the “strategic atrophy” suffered during the United States participation in the Global War on Terror. For decades, the US military not only enjoyed unrivaled freedom of maneuver and tactical and operational overmatch, but enjoyed the ability to focus significant efforts on maintaining the steady-state operations that accompanied the Global War on Terror.

Operating Concepts and Large-Scale Combat Requirements

There are multiple operating concepts applicable to the joint and maritime forces that rely directly on the availability of amphibious shipping to execute. *The Joint Operational Access Concept* (JOAC), *Joint Force 2025, A Cooperative Strategy for 21st Century Seapower*, and the *Marine Corps Operating Concept* (MOC) all rely on integration and employment of amphibious forces. One additional operating concept that needs to be addressed during this research is LOCE and its subordinate operating concept, Expeditionary Advanced Base Operations (EABO).

Marine Operating Concept

The MOC is a capstone document and provides broad guidance on how the Marine Corps will execute its Title 10 responsibilities in the context of the modern operating environment. It seeks to characterize and shape how the US Marine Corps will

fight and win through 2025.⁵³ The MOC design approach sought to accomplish the following: distill key drivers of change in the future environment, identify the central problem faced by the Marine Corps in preparing for the future, reinforces the Marine Corps' enduring commitment to the principles of maneuver warfare, and sets critical tasks to inform how the US Marine Corps will develop the future force and execute the concept.

Much of what the MOC articulates about the future operating environment aligns with the earlier description of the current and future threat conditions. The MOC focuses on the complex terrain the amphibious force will be forced to operate in made even more difficult by the proliferation of technology and the rise in sophistication and complexity of A2AD threats. It goes on to discuss the importance of information leveraged as a weapon by our adversaries. It also discusses the contested maritime domain.⁵⁴

Ultimately, a robust Navy amphibious ship capability is required to support the employment considerations.

Littoral Operations in a Contested Environment

Littoral Operations in a Contested Environment (LOCE), coupled with the concept of EABO are critical emerging concepts that will inform amphibious operations in both LSCO and in contested maritime environments. This concept outlined the integration necessary for the Navy and Marine Corps to overcome emerging threats within the littoral areas. It emphasizes fighting for and maintaining sea control, to include

⁵³ Department of the Navy, *Marine Corps Operating Concept*, 4.

⁵⁴ *Ibid.*, 6-7.

employing sea and land-based Marine Corps capabilities to complement the sea control fight.⁵⁵

One of the most important concepts of LOCE is the need for Naval Integration. It is recognized that the problem of operating in the littorals cannot be overcome as “carefully segregated specialists” it will take cooperation across the maritime forces.⁵⁶ It also clearly articulates that aspects of naval operational art were not adequately developed for modern warfare. Navy and Marine Corps forces are often employed as separate entities, inhibiting effective application of complementary capabilities. Additionally, it identifies the deficiency in Marine Corps representation within fleet and JFMCC Staffs. Ultimately the MAGTF is not leveraged to its fullest capability.⁵⁷

Another aspect of LOCE that directly relates to this research is the idea of “risk to high-value units.” It addresses the fact that each ship within the CSG provides capabilities critical to the naval force as a whole. The idea of a fleet commander having “chess pieces he can wager without risking the whole game” is central to the need to develop breadth and survivability in the number and types of amphibious craft able to operate in the littorals.⁵⁸

LOCE provides the framework for the Navy and Marine Corps to make changes to how it organizes, trains, and equips forces to provide the JFMCC the ability to operate

⁵⁵ Department of the Navy, *Littoral Operations in a Contested Environment* (Washington, DC: Government Printing Office, 2017), 1-5.

⁵⁶ *Ibid.*, 6.

⁵⁷ *Ibid.*, 7-8.

⁵⁸ *Ibid.*, 8-10.

in all five dimensions of the littoral. These include: (1) seaward (both surface and subsurface); (2) landward (both surface and subterranean); (3) the airspace above; (4) cyberspace; and (5) the electromagnetic spectrum.⁵⁹

Still in development, EABO is a Navy-Marine Corps concept approved by the Chief of Naval Operations and Commandant of the Marine Corps in March of 2019. EABO advocates the employment of mobile, low-signature expeditionary forces to seize a series of austere, temporary locations within a contested maritime area in order to conduct sea denial or support sea control. As discussed early in this chapter, potential adversaries will attempt to leverage A2AD weaponry and asymmetric tactics to deny sea control and operational maneuver. The amphibious force can use EABO to seize intermediate objectives to establish small, expeditionary outposts or Expeditionary Advance Bases with which to systematically reduce coastal defenses. The impetus in the development of EABO was the widespread belief by many Defense officials that the Marine Corps is not manned, organized, or equipped to succeed against a peer adversary in the year 2025.

EABO is meant to address the concerns of A2AD threat and the United States succeeding in a contested maritime environment. EABO is described as:

Expeditionary Advance Base Operations is a naval operational concept that anticipates the requirements of the next paradigm of US Joint expeditionary operations. The concept is adversary based, cost informed and advantaged focused. EABO calls for an alternative, difficult to target forward basing infrastructure that will enable US naval and joint forces to create a more resilient forward based posture to persist, partner and operate within range of adversary long range precision fires. The alternative forward posture enabled by Expeditionary Advance Bases (EABs) is designed to mitigate the growing threat posed by the abundant quantity, expanded range and enhanced precision of

⁵⁹ Department of the Navy, *Littoral Operations in a Contested Environment*, 9.

potential adversary weaponry—particularly ballistic and cruise missiles designed to attack critical joint fixed forward infrastructure and large platforms. EABs provide a dispersed and largely mobile forward basing infrastructure that enables a persistent alternative force capability se that is similarly designed to be difficult to target and inherently resilient. The resilient, reduced signature infrastructure of EABs, combined with naval forces designed and structured to persist and operate within the arc of adversary anti-access/aerial denial (A2AD) capabilities enables naval commanders to conduct Expeditionary Advanced Base Operations to support Joint Force Maritime Component Commander (JFMCC), the Fleet Commanders in the fight for sea control, by exploiting the opportunities afforded by key maritime terrain, particularly in close and confined seas. EABO advanced, sustains and maintains the naval and joint sensor, shooter and sustainment capabilities of dispersed forces to leverage the decisive massed capabilities of the larger joint force with enhanced situational awareness, augmented fires and logistical support. The EABO Concept enables US naval forces to exercise 21st Century naval operations art, meet new enemy A2AD threats with new capabilities and operate and thrive in and around close and confined seas.⁶⁰

Beyond the capability EABO will provide the maritime force, is the options it generates for introducing a large force into a theater beyond the Marine Corps. EABO or seabasing also influences uncertain allies and doubtful neutrals. “In maritime operations, seabasing is . . . about achieving operational freedom of action and favorable cost balances.”⁶¹

EABO will heavily leverage the Navy’s amphibious capabilities. Their sustainment and survivability will depend heavily on amphibious ships and surface connectors to establish and maintain land-based expeditionary advanced bases. From the

⁶⁰ Federal Business Opportunities, “Innovation Industry Day Announcement-Marine Corps Warfighting Laboratory - EABO 2019,” 2 February 2018, accessed 22 April 2019, https://www.fbo.gov/index?s=opportunity&mode=form&id=5ad0e3a3809bf73ddeda57b1bd32aaf1&tab=core&_cview=1.

⁶¹ Robert Work, “Thinking About Seabasing: All Ahead, Slow” (Research, Center for Strategic and Budgetary Assessments, Washington, DC, 2006), 308.

expeditionary advanced bases, the amphibious force can execute raids to assure operational and strategic access.⁶²

A Cooperative Strategy for 21st Century Seapower

Finally, when examining maritime specific operating concepts, the US Navy authored *A Cooperative Strategy for 21st Century Seapower* provides context for amphibious contributions to the Sea Services collectively. Unique in terms of what the maritime force provides is persistent global presence across the full spectrum of operations. Central to this concept is the fact that over the next 15 years seaborne trade will double. Approximately 70 percent of the world's population lives within 100 miles of a coastline, and 90 percent of the world's trade volume travels across the ocean.⁶³ As the United States turns its focus to great power competition, the capabilities of the amphibious fleet are at the heart of the nation's requirements.

Summary

Chapter 2 provides a detailed description of the subject matter in the context of National Security Council objectives, doctrinal publications, resource comparison, and the role of amphibious shipping in emerging operating concepts. Throughout all aspects of the chapter, the common theme of increasingly contested nature of the maritime environment highlighted the future role of amphibious shipping. Further, the literature

⁶² Bryan Clark and Jesse Sloman, "Advancing Beyond the Beach: Amphibious Operations in an Era of Precision Weapons" (Study, Center for Strategic and Budgetary Assessments, Washington, DC, 2016).

⁶³ Department of the Navy, *A Cooperative Strategy for 21st Century Seapower* (Washington, DC: Government Printing Office, March 2015), 3-9.

review sought to incorporate contemporary ideas regarding the current and future organization of the maritime force. Chapter 3 will address the research methodology applied as well as the reasoning behind method selection.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

The purpose of this research is to identify the distinction in the prioritization and allocation of resources applied across traditional capital platforms when compared to the amphibious fleet. Further, it seeks to illustrate the contributions of amphibious shipping to strategic-shaping activities. Ultimately, the intent of the research was to identify where the US Navy stands in terms of amphibious capacity and whether or not this is sufficient when viewed through the lens of operational and strategic requirements. Finally, this work provides analysis and recommendations on the subject of addressing resource imbalance between complementary naval capabilities.

Research Questions

The primary research questions for this study: Is the amphibious fleet fully resourced commensurate with its strategic capabilities to meet current requirements through 2025? Does the amphibious fleet deserve capital ship status? This question provides insight to the capabilities amphibious shipping provides the joint force, the MAGTF, and POTUS while not given the same resource priority of other US Navy vessels or programs. The secondary research questions provide the basis to answer the primary research question.

The secondary research questions were: (1) What is the current resource gap between current capital vessel programs and the amphibious fleet? (2) What is the ability of the amphibious fleet to contribute to strategic-shaping activities? (3) What is the

criticality of amphibious shipping to emerging operating concepts? and (4) What is the operational use of the CSG in contrast to the ESG from 1991 to present?

Qualitative Methodology

The primary method of research used is qualitative review focusing on content analysis of descriptive data relating to the subject matter. However, in an effort to remove the inductive nature of this type of research, quantitative data analysis played a complementary role in the development of the findings. Further, comparisons will be used, but will be placed in the appropriate context. For example, throughout the research work it is posited that the LHA is comparable in strategic importance as the Aircraft Carrier, Nuclear Powered, but it would be placed in the context of assigned mission and unique capabilities.

The researcher chose this method because it gave the broadest picture of the subject matter. The weakness of this method is the fact that there is subjectivity in the data or in the literature that could influence the outcome of the research. Additionally, anyone employing this method must guard against selectively including or excluding data in an attempt to shape finding to the desired results of the research.

Visual Model

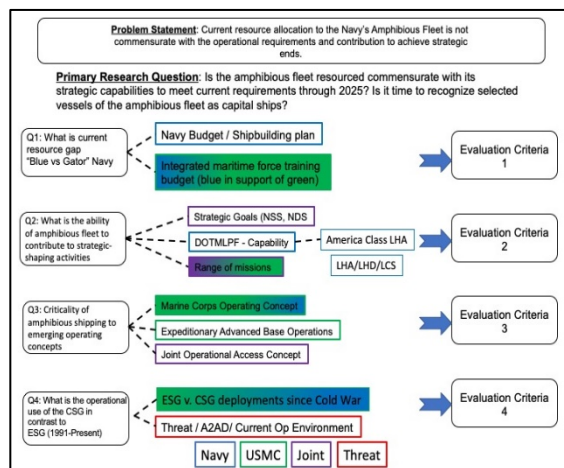


Figure 9. Research Methodology

Source: Created by author.

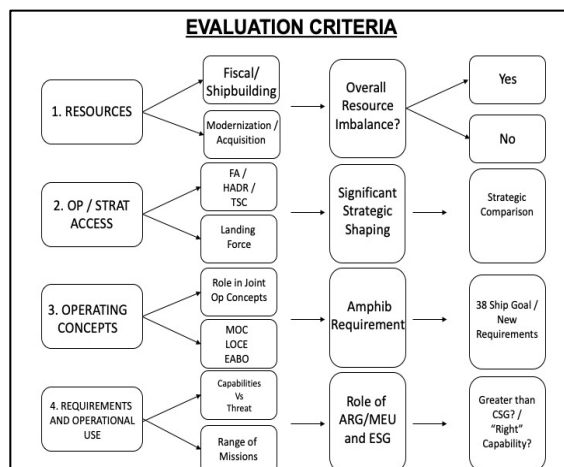


Figure 10. Evaluation Criteria

Source: Created by author.

Conduct of Research

The natural starting point for the research focused on defining the capability in terms of strategic context for the amphibious fleet. It was critical to conduct a thorough examination of strategic documents and guidance. Analysis of the current NSS, NDS, and other strategic guidance from the National Security Council helped shape the context of the strategic environment and capabilities required by the military. Additionally, the works of organizations such as the Congressional Research Service, Center for Strategic and Budgetary Assessments, and Center for Strategic and International Studies played a central role in the research conducted. Many of the papers, books, and summaries distilled complex concepts into easily referenced and applied material.

Following analysis of the strategic context, the research then focused on resource allocation. In this research, the resources examined include fiscal allocation as well as the subjective analysis of the priority allotted for training and focus. It became important to review current and future shipbuilding plans for the Navy, specifically focused on the amphibious fleet and other capital vessel programs. This provided clear indicators of the prioritization of resources across all major vessel programs throughout the Navy. A complex aspect of ship building and maintenance that requires further research are resources dedicated to service-life extension.

Following the resource allocation assessment, a capability analysis accompanied this research. Specifically, an examination of amphibious shipping across select elements of Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Policies (DOTMLPF-P). This was critical in the search to answer the secondary research questions and ultimately shape an opinion regarding the ability of the amphibious fleet to

fulfill strategic and operational ends. For this research, the areas of Organization and Materiel served as the two areas of focus within DOTMLP-P.

Finally, the research examined existing and emerging operating concepts being developed by the maritime and joint forces. These concepts will inform the future organization and equipping of the maritime and joint force. Further, they provide valuable insight into the capabilities a force anticipates using and provide a broad concept of employment.

Related to the capability analysis and equally important, a threat-based analysis was conducted. Specifically, threats to operations conducted in the maritime domain. The vast majority of focus of resources is dedicated to building a “Blue Water” Navy capable of defeating an equally equipped threat Navy. The questions to ask, is this the reality of the current and future threat environment? Further, what impacts will the focus of money, technology, and the political environment have on the ability of the maritime services to conduct amphibious operations?

Summary

Chapter 3 focuses on the application of the qualitative review and content analysis to answer the primary research question. Further, it provides a step-by-step overview of the process as well as a model outlining the conduct of the research. Chapter 4 will provide analysis of the data examined in the literature review. From this analysis, the research seeks to answer the primary research questions and provide recommendations for future application.

CHAPTER 4

ANALYSIS

Introduction

The purpose of this study was to examine the status of amphibious shipping and its impact to the capability of the maritime forces. Specifically, are the necessary resources dedicated to the maintenance, modernization, and integration of the main amphibious vessels and associated surface connectors to fulfill operational requirements. There is a perceived gap in current capabilities when examining the inventory of the amphibious fleet and comparing that against emerging operational requirements. To identify and address this gap, this research focused on past and contemporary literature pertaining to the subject matter. Further, it examined amphibious doctrine as well as emerging concepts that inform the way the military must organize, train, and equip to be successful in the current and future global operating environment.

The US Navy has roughly half the ship inventory it possessed 30 years ago with arguably twice the commitments. This qualitative analysis sought to examine the readiness of the amphibious fleet to carry out its operational requirement related to crisis and contingency response at the contact layer while simultaneously being prepared to surge and support high-end LSCO. The Navy in general is deficient in meeting the identified 355-ship battle force that makes up the NNN. With regard to the amphibious fleet, it is well short of the identified 38-ship inventory which is possible an outdated goal as the requirement is likely closer to 50.⁶⁴

⁶⁴ Cuomo et al., “Not Yet Openly at War, But Still Mostly at Peace.”

During the conduct of the research, it became evident that while the amphibious fleet is seen as necessary and important, it is subordinate to the traditional Naval sources of power of the NNN: the aircraft carrier, subsurface fleet, and other surface combatants. This is both a product of service culture and priorities established by senior defense leadership. However, it is important to recognize that few vessels in the Navy's inventory provide the level of persistent presence, responsiveness, range of mission, and capability to support sea control and power projection to the degree of amphibious platforms.

It is no great revelation that the amphibious fleet is currently not sourced with the necessary vessels to meet its operational requirements. This is evident in light of the establishment of measures to address the gap left as a result of amphibious ship shortfalls. Land-based Special Purpose MAGTF–(Crisis Response) units as well as the embarkation of Marines aboard other platforms are current ways in which the amphibious ship shortfall is addressed. However, while leveraging the Joint High-Speed Vessel and other platforms tentatively solves some capacity issues, it does not provide the capability associated with amphibious shipping.

Review of Research Questions

To answer the primary research question, this work employed secondary questions that sought the following information: what is the resource gap for amphibious shipping when compared to other “capital ship” expenditures? “Resources” in this research covers a broad spectrum of meanings. The obvious place to start would be fiscal expenditures relative to maintaining and growing the amphibious fleet. However other metrics were evaluated. These include modernization, organizational priorities,

shipbuilding plans, and to a lesser degree the very culture of the maritime services themselves.

Second, what are the strategic shaping contributions of the amphibious fleet. When examining strategic goals, how do amphibious operations and by extension, amphibious shipping enable the strategic goals to be accomplished? Further, this research examined how significant a role the amphibious fleet plays in complementing or supporting the rest of the Joint Force.

Third, how critical is the amphibious fleet to emerging operating concepts authored by both the Navy and Marine Corps? The maritime services as well as the joint force released operating concepts that require robust amphibious capability to support the full spectrum of operations from Joint Forcible Entry to Humanitarian operations. This research sought to determine what, if any gap exists in the plan for employment of the maritime force in the future and the materiel and organizational realities of the amphibious force.

Finally, what are the requirements in the current operating environment for the employment of the ARG, MEU, or ESG in comparison to the CSG? While the role of the aircraft carrier remains central to power projection, when viewed in the context of threat and capabilities does the amphibious fleet provide a viable alternative? This work posits that a trend of reduction in focus on amphibious operations and the necessary systems and materiel as a result of the Global War on Terror resulted in a reduction in our overall amphibious capacity.

Findings

Status of the Amphibious Fleet and Requirements Through 2025

The stand-alone answer to whether or not the amphibious shipping inventory meets the current and future operational requirements of the Navy and Marine Corps is no. As evidenced not only by quantitative analysis, which shows the amphibious fleet below the established 38-ship requirement, but by the lack of modernization to address the realities of the increasingly contested maritime domain. Further, an interesting finding of the research is the idea that the 38-ship goal may be outdated and may in fact be significantly lower than is required. The literature review provided an in-depth discussion of all the challenges to access and sea control in the global commons. Medium and long-range coastal defense missile systems coupled with peer competitors' development of sophisticated naval and amphibious capacity place the current maritime force at an alarming disadvantage. Ultimately, the combination of all these factors indicate the amphibious fleet and therefore the amphibious and maritime force is not prepared for the current and future operating environment.⁶⁵

The current Joint Chief of Staff, General Dunford in conjunction with the Commandant of the Marine Corps both state the criticality of the amphibious force to influencing the Indo-Pacific region. The current amphibious fleet is not quantitatively ready to support the operational needs of the DOD.

⁶⁵ Cuomo, et al., "Not Yet Openly at War, But Still Mostly at Peace."

Since 1798, there are well over 200 instances of the US deploying forces abroad that were expeditionary in nature.⁶⁶ A common characteristic in almost all deployment abroad was the employment of forces from an amphibious platform or the support of forces ashore through amphibious means. In many respects, there is little ability to remove amphibious operations from Range of Military Operations.

The Navy's five-year shipbuilding plan includes the production of a total of 54 new ships. This number is in support of the Navy's goal of a 355-ship battle force outlined in the FY2018 National Defense Authorization Act.⁶⁷ However, the shipbuilding plan places a clear priority on the acquisition of large surface combatants and submarines.

The overwhelming majority of the data collected during this research pointed to two facts: the current status of the amphibious fleet and service life extension plans do not address modernization requirements and the amphibious fleet as it exists right now cannot support the future operational requirements of the military. Specifically, if necessary, the maritime force would not be able to meet its mandated two-MEB surge layer requirement while still conducting crisis and contingency operations.

Fiscal Imbalance

The budget overview provided in the literature review clearly identified the focus of fiscal obligations on building the modern battle force. This battle force appears to be one that is built around surface combatants and submarines. Little allocation is provided

⁶⁶ Congressional Research Service, *Instances of Use of United States Armed Forces Abroad, 1798-2017* (Washington, DC: Congressional Research Service, 2017).

⁶⁷ Section 1025 of the FY2018 National Defense Authorization Act (H.R.2810/P.L. 115-91 of 12 December 2017) defines the "battle force ship."

for modernizing the primary vessels in the ARG. Discussion in the *Highlights of the Department of the Navy FY2020 Budget* with regards to ship weapons made no mention of attempting to increase the survivability of ARG shipping. However, there was discussion regarding the Rolling Airframe Missile. This is designed to engage anti-ship cruise missiles as well as low profile threats. There were no specifics provided on the intent of the Navy to employ this system aboard the ships of the ARG.

The budget fails to address the need for greater production and maintenance of high quality, modern L-class ships. The timeline adjustments to the production and integration of the LPD Flight II coupled with a limited number of amphibious-capable small surface combatants. Instead of spending \$1.4 billion per ship on LPDs, the budget plans to acquire three additional submarines at a \$2.3 billion per ship cost. Ultimately, the current budget and recent iterations can be best described as being focused on sea control and with deference given to “blue water” platforms and capabilities.

Strategic Requirements and Capabilities

The strategic documents that inform the decisions of military and civilian leaders with regard to national defense clearly articulate the need for modernizing and increasing lethality of the military. Further, both POTUS and the Secretary of Defense outline the need for overmatch in many aspects of power projecting and military capability. While there is some debate amongst the services in terms of how to accomplish the stated goals, it is clear that significant resources must be dedicated to developing our amphibious capabilities. If the DOD is to achieve the stated goals and objectives, it is critical to support the nation’s ability to project power. A clear and historically proven way to project power is possessing the capability to conduct expeditionary operations. The

development of the military's amphibious capacity will become critical to the United States ability to maintain operational and strategic overmatch globally.

“Seabasing” is not a new concept, but one that will play a critical role in future military operations,⁶⁸ especially if conducting LSCO against a near peer competitor. Given the prevalence of A2AD weapon systems, the availability of permissive sea and air ports of debarkation may limit operational maneuver. Through the use of seabasing, the DOD is able to marshal forces, provide logistical support, and conduct kinetic activity outside of the range of threat weapon systems designed to prevent maneuver from the sea. As the land and littoral domain become increasingly contested, the ability to seabase will become exponentially more important.

The idea of strategic access is harder to quantify and is somewhat subjective. Leveraging the use of amphibious shipping is integral to the United States gaining and maintaining global strategic access. Disembarking a ground force to conduct Humanitarian Assistance and Disaster Relief has the potential to provide deeper access than the presence of an aircraft carrier and its accompaniment of strike aircraft. Additionally, amphibious platforms are used to facilitate bi-lateral and multi-lateral training and development of allied and partner security forces and militaries.

The amphibious fleet provides both strategic and operational flexibility unmatched by any other naval vessel. Historic examples outlined in chapter 2 provide context for the criticality of maintaining this capability. Even so, starting in the mid-1990s, a trend of degradation of amphibious focus began and continued through the

⁶⁸ Work, “Thinking About Seabasing: All Ahead, Slow.”

Global War on Terror. The amphibious ship inventory and the very concepts and doctrine governing amphibious operations experienced a period of atrophy. This was a result of competing priorities as the United States became completely consumed in executing two projected large-scale land campaigns in Iraq and Afghanistan. Earlier than that, with the conventional success the United States enjoyed during Operation Desert Storm. The fact that an integral part of the operation was a major amphibious demonstration seems to be lost in the celebration of armored mobility and air power. The deeper irony here is that this period was characterized by a high volume of amphibious operations carried out in support of a myriad of crisis and contingency operations.

Operating Environment

A critical finding that bears direct relevance on the importance of modernizing the amphibious fleet is the changing international security environment. As identified as a trend throughout the literature review, the United States is entering an era of renewed great power competition. The threat landscape is shifting dramatically and with it the variables that must be taken into account in terms of operational maneuver. China is contesting the US dominance, not only in the Indo-Pacific region but globally as well. Further, our traditional great power competitor from the Cold War-era, Russia, is actively seeking to destabilize eastern Europe. They seek to marginalize NATO and gain control of critical lines of communication.

Looking beyond the need for effective diplomatic measures, it is imperative for the United States to possess the necessary military capacity to project power. This research shows that a fundamental source of power projection is through naval shipping. Further, it relies on the ability to launch, support, and recover forces ashore. The

platforms that best provide this capacity is the amphibious fleet. The ability to execute the operations unique to the ESG and MEU will only become increasingly important. A common, explicitly stated goal found in the strategic guidance to the DOD is the need to maintain overmatch. As peer and near-peer competitors seek to gain ways to either mirror or marginalize our capabilities, we will need to expend the necessary resources to modernize and increase the capability of existing means. Given the context of China's recent increase in spending to develop an amphibious capability it follows reason that we should seek to achieve overmatch to this capability. If the United States desires to maintain the ability to secure freedom of navigation while deterring gradualism and erosion of our abilities by our competitors, the ability to project power ashore is critical.

Operating Concepts

Operating concepts act as a vehicle for services to bridge the gap between existing doctrine and capabilities and asymmetries that may exist between the service and emerging changes in the operating environment. Current operating concepts pertaining to the maritime services all have one common aspect, the central role played by the Navy's amphibious capability. The MOC relies on a robust amphibious capability to conduct theater closure and provide the platform necessary to launch disparate amphibious operations in order to reduce the risk to landing forces. Further, the capstone concept of LOCE and its subordinate concept EABO are the blueprint for how the Joint Force can reduce the exclusionary effect of access denial weapon systems and maintain its joint forcible entry capabilities.

Continued examination of the EABO concept clearly outlines a requirement for a sustained capability to project power ashore. One of the key characteristics of amphibious

shipping is sustainability. Essentially providing a floating sustainment area the amphibious force simultaneously reduces the ashore footprint of embarked forces while extending operational reach. The establishment of disparate and temporary expeditionary bases ashore provides the critical extension of surface and aerial delivery of weapons systems to support achieving operational objectives.

Overlooked, but critical to the maritime force is the family of surface connectors. Without this critical link in the chain, there is not ship to shore movement. The US Navy's current surface connector capability is aging and ill-suited for the rigors of large-scale combat. Further, when analyzing fiscal prioritization, modernization of the surface connectors associated with the ARG have largely gone marginalized. It is only recently that the Amphibious Assault Vehicle is receiving a badly needed upgrade. In fact, all of the surface connector in use currently, with the exception of the Amphibious Assault Vehicle are capable of operating in a permissive environment only. Landing craft air cushions and LCUs possess no survivability or protective measures should they encounter a hostile force while conducting ship-to-shore movement. The Navy and Marine Corps will require modernization, and in some ways completely new systems, to move forces and materiel ashore with the requisite speed and protection required in the current and future operating environment.

The scalable and tailorable nature of a task force embarked aboard amphibious shipping makes it uniquely suited for a broad range of military operations. Further, it provides response time unmatched anywhere in the DOD when compared against the capability. There are few better places to invest time and money than in the maintenance and improvement of the US Navy's amphibious capabilities.

Service cultures shape every aspect of the way that organization man, trains, and equips to fight wars. The very culture of the Navy is one that places a primacy on sea control and offensive capability in terms of “blue water” vessels. This culture places emphasis on the carrier, sub-surface, and aviation communities over that of the amphibious fleet. It seems every generation of Marine has to struggle with the question of how the Marine Corps will maintain its amphibious capability.

DOTMLPF-P

The main area of focus for this research work when viewed through the lens of DOTMLPF-P, is really materiel. It is the major vessels and associated systems that the research focused on as not being prioritized commensurate to its strategic contributions. However, the areas of organization and training deserve focus as well. Recently, significant effort was dedicated to the modernization of amphibious doctrine, as such this research did not seek to advocate changes in this area.

Materiel

With respect to materiel, the research indicated two trends. First, the overall inventory of the amphibious fleet does not meet the current or future requirements. Second, there is less being procured than necessary to meet the anticipated goals of operating concepts and strategic guidance. This work indicated that additional equipment and systems need to be acquired, produced, and integrated in order to make the AF a viable force in contested maritime domains.

However, the story here is not all bad news. There is a plan in place to modernize the amphibious (see figure 11).

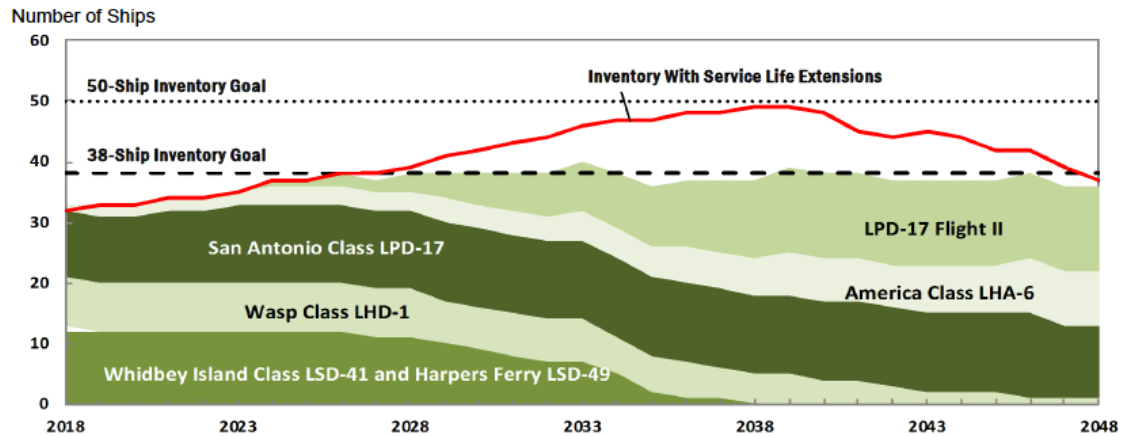


Figure 11. Inventory of Amphibious Ships Under Navy’s 2019 Plan

Source: Eric J. Labs, “The 2019 Outlook for Navy Shipbuilding” ((Presentation, Bank of America Merrill Lynch Defense Outlook Forum, Washington, DC, 9 January 2019), 19.

The problem becomes a question of whether or not this will be too little, too late. Additionally, while significant improvements in the overall inventory are being made, some of that ground is currently being lost as decision makers are rethinking the best way forward in terms of modernizing and improving the amphibious fleet. A clear example, as addressed in literature review and figure 12, the FY20 budget and shipbuilding plan reduces the overall inventory gains, albeit marginally.

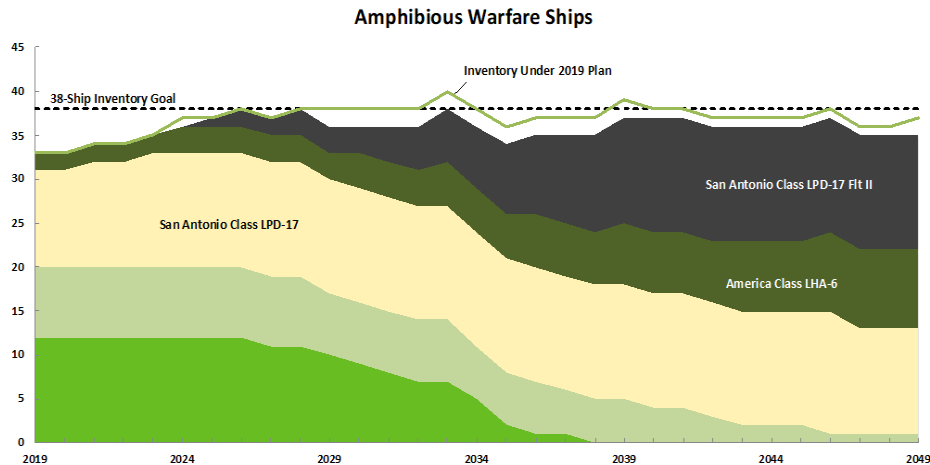


Figure 12. Amphibious Ship Inventory Under the Navy’s 2020 Plan

Source: Eric J. Labs, “The 2019 Outlook for Navy Shipbuilding” (Presentation, Bank of America Merrill Lynch Defense Outlook Forum, Washington, DC, 9 January 2019).

Organization

An unintended, but still relevant aspect of this research was an examination of the current organization of the amphibious force and composite warfare organization of the US Navy. Integration with the Navy beyond that of the ARG is limited and ultimately does not support the execution of distributed or disaggregated operations.

In the future, the successful amphibious force will need to be a low-signature, distributed “system” capable of defeating the arc of A2AD capabilities an adversary possesses. This requires an examination of how to go beyond the current organization of the AF to allow the Fleet Commander or JFMCC to best employ the AF.

Summary

Throughout the conduct of the research, the continuing debate of the relevance and necessity of amphibious capability came into questions. More often than not, the obvious merits of possessing flexibility through amphibious capacity outweighed the argument that amphibious operations are obsolete. It is critical to ensure amphibious operations are viewed in a broader context than large-scale landings in a contested objective area.

A critical finding in this research was the fact that the maritime forces do not possess the capacity to fulfill current and future requirements. Further, when viewed through the context of joint capabilities, there exists a critical deficit in the ability to leverage the nation's most powerful ground force, the Army, through amphibious means. For the maritime services to maintain overmatch against our peer and near-peer competitors, it will be vital to source the amphibious fleet accordingly and critically review the way in which it integrates into the larger joint force. Ultimately, the current status of the amphibious fleet is not conducive to thriving in the changing global security environment.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Amphibious Ready Groups are like a Swiss Army knife; they can do a little bit of everything... They are among the most responsive and cost-effective means to project U.S. power around the world. In fact, we don't have enough of them. The Pentagon should be buying more assets such as the America class amphibious assault ships, as well as speeding the purchase of the F-35Bs.

— James Carafano, *San Francisco Examiner*

Conclusions

The evolution of the capital ship throughout the US modern naval history tells the story of both the changing nature of conflict and the operational environment. As such, we are moving into a time period that requires a new assessment of what our capital naval assets are. It became evident through the course of this research that the amphibious fleet and the Navy's contribution to the Marine Corps' amphibious capabilities is not completely marginalized. Significant fiscal resources are dedicated to service life extension and maintenance of the amphibious fleet. However, the reality is that the current prioritization of resources does not correlate to the strategic importance of our amphibious capabilities or align with the requirements of the modern security environment.

With regard to the primary and secondary research questions: the amphibious fleet is not currently resourced commensurate to its strategic capabilities and current and future operational requirements. When viewed within the context of the fiscal imbalance as well as priorities for modernization and shipbuilding, a clear resource gap exists. Further, as discussed in the literature review and the analysis, whether through soft power

application or support to high-end activities, amphibious shipping is central to the military's and by extension the nation's ability to sustain and execute operations that achieve strategic ends. Regardless of whether forcible entry from the sea occurs or not, amphibious capabilities play a significant role operationally. If operating concepts provide us the lens through which to make decisions on the posture, organization, and employment of forces and assets, then emerging operating concepts project a need to focus on the amphibious fleet and take corrective action now. Across the operating concepts of the maritime services the need is articulated of a modernized, dispersed amphibious force capable of task-organizing in sizes ranging from a company through a Joint Task Force to accomplish a wide range of missions. This capability will be directly related to possessing the right amphibious capacity to support these missions. Finally, as outlined throughout this work, the operational employment of the MEU or ESG continues to outpace that of the CSG when examining use of power projection to help achieve strategic ends.

A continual tension will always exist between the Navy and Marine Corps with regard to what is more important, sea control or power projection into the littorals. In reality, there is not a binary answer. The context, time, and geographic location all bring variables that may make one logically prioritized over another. During Guadalcanal, if the ships remained in place only to be decimated by Japanese naval forces, would there operation ultimately been a success? The deeper question to be asked is, can you conduct amphibious operations ashore without Sea Control and conversely can you truly have control of the sea and global commons without the ability to project power ashore and

land a force capable of securing objectives and influencing the land-based powers. It is a complementary effort between the services to serve national interests abroad.

While conventional offensive Naval capabilities are critical to future US military success, it is short-sighted to sacrifice forcible entry and amphibious. It is critical that the United States be able to maintain its crisis response contingency forces while surging an amphibious force to provide Combatant and Joint Force commanders with operational flexibility.

Implications

A Complicated Situation with No Silver Bullet

It is evident that the problem of naval capacity in the modern operating environment is not simply an amphibious one. Currently the Navy is trying to close the gap in terms of operational need versus inventory in several vessel programs and across multiple core competencies. In testimony before the senate armed services committee, senior naval leaders, to include the Commandant of the Marine Corps, testified that there are multiple deficiencies.⁶⁹ Representative Bradley Byrne (R-AL) specifically addressed concerns over the amphibious program, to which the Commandant identified maintenance shortfalls as a major obstacle to maintain operational tempo. Further, the solution to peer competitors impeding freedom of maneuver in the maritime domain is not simply more of one capability. When examining our competitors' systems approach

⁶⁹ Jeff Martin, "Naval Leaders Testify on the Future of the Navy and the Marine Corps," *Defense News*, 22 April 2019, accessed 23 April 2019, <https://www.defensenews.com/newsletters/tv-next-episode/2019/04/22/naval-leaders-testify-on-the-future-of-the-navy-and-marine-corps/>.

to competition with the United States, flexibility and strength across multiple aspects of our naval capacity is critical.

Major Changes

A common theme that emerged at the completion of this research is that the US Navy and Marine Corps are in a period of change. Many similarities exist between the current situation and the period of innovation that followed World War I and led to the development of modern amphibious operations. Changing priorities for organization, training, equipping, and employment of the amphibious force will mark the transition into a new era of global maritime competition. Not only is there an active and substantive debate about the future role of the Marine Corps, there is an ongoing dialogue regarding what the Navy should look like and what it should be able to do, the idea of the NNN will likely be questioned. As the Navy examines how it should posture to support contact layer activities and be prepared to support surge operations, it must examine traditional conceptions of how the battle force is arrayed. Specifically, what is identified as capital assets and how do we best leverage those assets while increasing their overall survivability.

Recommendations

Shipbuilding Plan and Funding

The author fully recognizes there are significant gains being made with respect to modernizing the amphibious fleet. However, recent events brought loss in some of the ground gained as priorities once again shift away from amphibious platforms. Adjustments to the long-term shipbuilding plan are required. Specifically, there is a need

to return to the original procurement timeline for the LPD Flight II. Secondly, increase the overall number of large L-class ships to meet the operational requirements of the Navy and Marine Corps. Finally, continue to focus on the production of a large number of amphibious capable small surface combatants. It is necessary to provide the amphibious commander tools beyond simply the “big deck” and “little deck” L-class ships. These small surface combatants will provide survivability and functionality to the ATF.

Rethinking Convention and Updating Operating Concepts

The traditional conceptualization of what constitutes a capital ship needs refinement or abandonment. Throughout the literature review of this research, there appeared to be a growing narrative that the US Navy is moving past the period of time where one vessel or capability becomes the basis of “building” the Navy. The idea of composite warfare or looking at building systems and capabilities may be more important than building fleets around capital ships or a specific capability. Further, rethinking the idea of how we accomplish force projection in the littorals is warranted. In the *Marine Corps Gazette* article “Not Yet Openly at War, But Still Mostly at Peace,” the authors discuss the need to shift focus from “episodic MEU and surge MEB operations” to focusing on “contact and blunt layer” operations supported by a distributed amphibious force.

Substantive discussions must take place above the service level to conduct renewed analysis of the maritime force’s prioritization of systems and training focus. Similar to the interwar period leading up to World War II, the maritime services need a renewed conversation regarding the place of amphibious operations. If left purely to the

Department of the Navy to have the internal discussion, the status quo will continue. The US Navy will see its “blue water” capability as the ultimate reason it exists and therefore allocate resources as such. Traditional capital vessels will remain the priority of resource allocation. As evidenced by the delay of modernizing the LPD in favor of submarine construction.

The Navy’s core operating concept, *A Cooperative Strategy for 21st Century Seapower* was authored in 2015. Significant changes impacting the naval services require a revisiting of this document. To a lesser degree, the MOC could also use some refinement if not simply to elaborate on EABO or LOCE. Many of the conceptual ideas in both documents are now realities, it follows that these concepts would benefit from a review through a current focus.

Finally, the Navy and Marine Corps must continue to fight for full funding and for the Amphibious Warship Evolution Plan. This is a comprehensive effort to both modernize and enhance the amphibious capabilities of the maritime services with respect to major systems and platforms.

Creative Solutions

The maritime services must seek ways to make the primary amphibious ships of the ARG more than strategic lift assets. With minimal increase in weapons systems, amphibious platforms can grow beyond just expeditionary platforms to be multi-role combatants. This not only increases survivability, but expands the ability of the AF to employ economy of force to the ATF and free up otherwise committed surface vessels.

Provide additional assets at the disposal of the fleet commander. This could take the form of additional LCSs or even Joint High-Speed Vessel. If every vessel the joint

force commander or JFMCC employs is something that has too high a cost if lost, then the United States will have no way to counter A2AD activities. It will be critical in the future to provide the joint force commander's options.

Training and preparation of amphibious operations must expand to include the Army. The ability of the United States to get our largest and most capable ground force in the fight is integral to our ability to succeed operationally. It would be a significant oversight to not be prepared to embark and support the Army through expeditionary means. While the primary landing force associated with amphibious operations should remain the US Marine Corps, the ability to conduct joint forcible entry from the sea dictates the need to include the US Army in amphibious training.

The primary research question sought to determine the ability of the maritime force, specifically the Navy and Marine Corps to carry out their primary competencies. This research found that while the United States may be able to maintain its current crisis response posture, it is not suited to maintain this capability and surge for large-scale combat operations. Shortfalls in both the necessary platforms and equipment, coupled with atrophy of the critical skills associated with expeditionary amphibious operations erode the maritime force's ability to sustain these capabilities.

Finally, the procurement of more L-class ships is required. Beyond the 38-ship target, the AF of the future will require more ships to operate with the contact and blunt layers of the *Global Operating Model*.

Future Research Areas

Survivability

Future research needs to be conducted on increasing the survivability of the major amphibious ships. One critical improvement would be the addition of self-defense weapons platforms beyond the Close-In Weapon Systems. Given that amphibious ships are not designed to fight hostile naval forces, exploring options for how we protect amphibious ships while conducting movement to offload the assault force. Providing upgraded Rolling Airframe Missile systems to defend against cruise missile attack and or leveraging solutions like firing HIMARS from the deck of an LHD or LHA increases both protection and lethality. If able to launch surface to surface fires from the amphibious ships themselves you add an increased layer of self-defense and strike capability to the MEU or ESG.

The Right Capability

This research focused mainly on asking the question, is the amphibious force operationally ready given existing platforms. It only addressed the question of “ready for what” peripherally. Military leaders across the maritime services and the DOD will need to answer the question of how the amphibious force fights and wins in the contested littorals. From these debates will likely come the answers to questions of reorganization, modernization, and innovation in platforms and methods. Further research of emerging technology, especially unmanned platforms, as well as adapting existing systems is necessary to determine the most effective way for the Navy and Marine Corps to thrive in the dynamic modern security environment. Further, how the maritime force cooperates and integrates with Special Operations Forces, the Army, and the Joint Force in general

must be examined to ensure that priorities and actions are aligned to produce the most effective maritime force.

Parting Thoughts

The United States is moving into a new era of great power conflict. The environment of the past 18 years significantly impacted the posture and character of the Navy and Marine Corps. There is little doubt that the CSG and the aircraft carrier itself remains a powerful symbol of US maritime dominance. However, amphibious operations are timeless and will be a part of the operational landscape for the foreseeable future. Further, our policy makers and senior leadership are clear on the direction they want the military to move towards. Amphibious shipping will play a central role to the future success of our military in both posturing forces to influence the contact layer as well as facilitate surge layer response.

Service priorities will always be informed by deeply held cultural beliefs. It is critical that decision makers at the highest level of uniformed and civilian service within the DOD clearly articulate priorities and end states. From this, the services must take an objective look at how best to accomplish the articulated ends. It is likely that cultural shifts must occur in the naval services for priorities to align to the operational realities faced by the US Navy and Marine Corps. Decades of preparing for and executing evolving types of warfighting in the maritime environment influence the way in which senior leaders see the solution for the problem.

As the United States moves into a new era of great power competition, it is critical to have the right combination of capabilities to facilitate military overmatch. To best compliment US Army increases in its expeditionary footprint in both the Indo-

PACOM and EUCOM combatant commands, the Navy and Marine Corps must meet the increase in demand for expeditionary support to operations. The unique contribution of the maritime forces to this buildup of combat power will be through the gaps in strategic lift that can be filled by amphibious shipping.

As this research work was concluded, there was a growing narrative of ever-increasing volume that the United States does not possess the capability and capacity required to maintain amphibious overmatch. Very real materiel shortfalls exist and must be addressed if the United States desires to remain dominant globally with regard to power projection and sea control.

Ultimately, as the nation, more specifically its maritime forces move into a new era defined by a drastically different global security environment it is time to evaluate what may be required is a return to the mindset of the interwar period to renew innovation and thought regarding how to maintain overmatch in the maritime domain. What is clear is that we no longer have years to think about and discuss this issue on a conceptual level, the new operating environment is here and we must act quickly to regain the initiative and once again provide overmatch in the maritime domain.

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