

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 05-01-2013		2. REPORT TYPE Master of Military Studies Research Paper		3. DATES COVERED (From - To) September 2012 - April 2013	
4. TITLE AND SUBTITLE The Future of USMC Amphibious Doctrine				5a. CONTRACT NUMBER N/A	
				5b. GRANT NUMBER N/A	
				5c. PROGRAM ELEMENT NUMBER N/A	
6. AUTHOR(S) Major S.R. Burlison				5d. PROJECT NUMBER N/A	
				5e. TASK NUMBER N/A	
				5f. WORK UNIT NUMBER N/A	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) USMC Command and Staff College Marine Corps University 2076 South Street Quantico, VA 22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER N/A	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				10. SPONSOR/MONITOR'S ACRONYM(S) N/A	
				11. SPONSORING/MONITORING AGENCY REPORT NUMBER N/A	
12. DISTRIBUTION AVAILABILITY STATEMENT Unlimited					
13. SUPPLEMENTARY NOTES N/A					
14. ABSTRACT Operations ashore during the last ten years have committed the Marine Corps to protracted operations, caused us to operate as a second land army, and created an amphibious mental and intellectual absence. This period took the Corps far away from its amphibious roots. Various think tanks to include RAND, Brookings, Stimson, Center for American Progress, and Center for a New American Security have recently conducted studies and provided recommendations for the Marine Corps regarding its budget, force size, and the future character of war without having a solid understanding of the Marine Corps Title X Mission. These studies have potential significant ramifications for the future of the Marine Corps. The future, strategic, operational, and tactical environments pose a dilemma for our current organization related to methods required to build combat power ashore. These problems are further complicated by a restrictive budgetary environment, significant debt, and the anticipated reduction of forces throughout each of our armed services.					
15. SUBJECT TERMS Range of military operations; amphibious doctrine; anti-access; area denial; amphibious connectors;					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 27	19a. NAME OF RESPONSIBLE PERSON Marine Corps University / Command and Staff College
a. REPORT Unclass	b. ABSTRACT Unclass	c. THIS PAGE Unclass			19b. TELEPHONE NUMBER (Include area code) (703) 784-3330 (Admin Office)

United States Marine Corps

Command and Staff College

Marine Corps University

2076 South Street

Marine Corps Combat Development Command

Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES
- "The Future of USMC Amphibious Doctrine"

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

AY 12-13

MAJOR SCOTT R. BURLISON

Mentor and Oral Defense Committee Member: _____

MATTHEW FAYN

Approved: _____

Date: _____

May 2 2013

Oral Defense Committee Member: _____

J.W. Gordon

Approved: _____

Date: _____

2 May 2013

EXECUTIVE SUMMARY

Title: “The Future of USMC Amphibious Doctrine”

Author: Major Scott R. Burlison, Marine Corps University, Command & Staff College

Thesis: Operations ashore during the last ten years have committed the Marine Corps to protracted operations, caused us to operate as a second land army, and created an amphibious mental and intellectual absence. This period took the Corps far away from its amphibious roots. Various think tanks to include, RAND, Brookings, Stimson, Center for American Progress, and Center for a New American Security have recently conducted studies and provided recommendations for the Marine Corps regarding its budget, force size, and the future character of war without having a solid understanding of the Marine Corps Title X Mission. These studies have potential significant ramifications for the future of the Marine Corps.

Discussion: As the world has become increasingly chaotic, combat operations during the last ten years have degraded our military readiness. As a result, our nation, though secure for the last decade, has experienced an economic decline posing significant ramifications for the future of our national security. These have only recently become obvious. At the same time, operations ashore have committed the Marine Corps to protracted operations, caused us to operate as a second land army, creating an amphibious mental and intellectual absence and taking the Corps far away from its amphibious roots.

The future, strategic, operational, and tactical environments pose a dilemma for our current organization related to methods required to build combat power ashore. These problems are further complicated by a restrictive budgetary environment, significant debt, and the anticipated reduction of forces throughout each of our armed services.

The character of war is constantly changing as exhibited throughout history. As a result, the last ten years engaged in counterinsurgency operations in Iraq and Afghanistan are not necessarily the best indicators of the future of war. It has been a time of rapid and continuous adaptation of technology, tactics, techniques, and procedures for success against emerging asymmetrical threats. As a result, operations have become increasingly joint, combined, and interagency. Our involvement in protracted land campaigns has significantly affected the United States Marine Corps as the art and science associated with amphibious operations has been lost. Like many skills, they are extremely perishable. This problem is further compounded in our growth away from the Navy, despite being a Department within it, as we operated as that second land army. Subsequently, horizontal and vertical operational maneuver from the sea has devolved and has almost become an afterthought.

Conclusion: The security and status of the United States as a leader in a chaotic new world order is threatened, as the emergence of both symmetrical and asymmetrical threats appear worldwide. Therefore, it is imperative that the Marine Corps re-focus on its amphibious roots and balance its forces in order to prepare for future threats.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Table of Contents

EXECUTIVE SUMMARY	i
DISCLAIMER	ii
INTRODUCTION	1
LITERATURE	3
COMPONENTS OF SUCCESS	6
CONFRONTING HISTORY	12
THINK TANK FINDINGS	15
THEIR POSITIONS	16
CENTER FOR AMERICAN PROGRESS	16
RAND	17
STIMSON	18
ASSESSMENT	20
MARINE CORPS MISSION	22
SOLUTION	23
CONCLUSION	25
BIBLIOGRAPHY	27

INTRODUCTION

The world has become increasingly destabilized during the early portion of the 21st Century. China and India have grown significantly economically and militarily, Iran and North Korea are outwardly hostile to western states, and Russia ever so slowly is quietly re-emerging. Non-state actors, criminal or terrorist, have further contributed to a destabilized world in the form of hybrid threats.¹ This, and macroeconomic imbalances in the United States and European economies, to include consumption, debt and savings rates, have set the conditions for a fundamental shift of economic power from west to east. Recently, the United States announced its pivot to the Pacific that further validates this observation. These trends, along with numerous technological developments suggest that the balance of power is rapidly changing. The security and status of the United States as a leader in a chaotic new world order is threatened, as the emergence of both symmetrical and asymmetrical threats appear worldwide. Therefore, it is imperative that the Marine Corps re-focus on its amphibious roots and balance its forces in order to prepare for future threats.

As the world has become increasingly chaotic, combat operations during the last ten years have degraded our military readiness. As a result, our nation, though secure for the last decade, has experienced an economic decline posing significant ramifications for the future of our national security. These have only recently become obvious. At the same time, operations ashore have committed the Marine Corps to protracted operations, caused us to operate as a second land army, creating an amphibious mental and intellectual absence and taking the Corps far away from its amphibious roots.

The future, strategic, operational, and tactical environments pose a dilemma for our current organization related to methods required to build combat power ashore. These problems

are further complicated by a restrictive budgetary environment, significant debt, and the anticipated reduction of forces throughout each of our armed services.²

The character of war is constantly changing as exhibited throughout history. As a result, the last ten years engaged in counterinsurgency operations in Iraq and Afghanistan are not necessarily the best indicators of the future of war. It has been a time of rapid and continuous adaptation of technology, tactics, techniques, and procedures for success against emerging asymmetrical threats. As a result, operations have become increasingly joint, combined, and interagency. Our involvement in protracted land campaigns has significantly affected the United States Marine Corps as the art and science associated with amphibious operations has been lost. Like many skills, they are extremely perishable. This problem is further compounded in our growth away from the Navy, despite being a Department within it, as we operated as that second land army. Subsequently, horizontal and vertical operational maneuver from the sea has devolved and has almost become an afterthought.

The proximity of potential threats to the littorals worldwide requires that the United States possess a viable, operationally, and economically sound means of operational maneuver from the sea. This capability is vital in order to exploit enemy vulnerabilities, conduct operations ashore, deal a decisive blow to adversaries if necessary, and perform a variety of other missions across the range of military operations (ROMO). After ten years of counterinsurgency operations, the United States Navy and the United States Marine Corps do not possess the expertise, ship to shore connectors, or amphibious platforms to proficiently conduct any type of joint amphibious operation.³

The importance of rebuilding this capability is vital to our future. It will be an uphill battle as the drawdown in Afghanistan commences and the economic environment remains

extremely challenging. Debt levels along with other factors across the global economy contribute to a restrictive budgetary environment. Operating under extreme budgetary restraints will limit the Marine Corps ability to both maintain and improve an amphibious capability that has atrophied during ten years of neglect. The efficient and intelligent use of the interwar period will be vital to the future of our nation's ability to strategically deter and project power across the world as we prepare for the next war.

I intend to conduct a concept-based analysis of recent studies conducted by a number of important "think tanks" regarding future budgets, manning, and missions. This analysis will focus on identified options, cost effectiveness, and how they relate to future operations. Subsequently, I will review the Marine Corps' current doctrine on the topic, its future, force structure, unique capabilities, and limitations for such operations. Ultimately, this work will determine the ramifications of the financial cuts these various studies recommend and the impact such cuts impart on the evolution of operational maneuver within our institution. Should these go forward, the Marine Corps main mission, as an expeditionary force in readiness, is in great jeopardy, leaving America's 911 force unable to perform its chief mission? Given the volatile security climate of today, this long-time proven asset is in more need than ever. The challenges coming in years hence will be all the more difficult to meet should this capability be absent.

LITERATURE

A significant amount of reading, interviews with leading experts within the field, and research has been conducted on the topic of USMC amphibious doctrine. An attempt to interact with various think tanks has been restrained in part, due to imposed research restrictions.⁴ As an active duty service member of the USMC, direct contact with those authoring the key reports used in this study is not appropriate at this time. I have been able to examine their published

reports with recommendations for imposed cuts. My contention is that these organizations have weighed in on post-war funding without a clear understanding of the mission of the Marine Corps, the future threat, and the importance of the evolution of amphibious operations in future military operations. Ideally, my analysis provides the catalyst for changes in doctrine and platform procurement while maintaining our amphibious roots. At the center of this discussion is the importance of using the interwar years, post-Afghanistan, to innovate and maintain the requirements that are most vital to our country's national security and its global standing.

This topic has come to the forefront during the last two years with a significant number of articles in professional and scholarly journals such as *Proceedings*, *Defense IQ*, *the Marine Corps Gazette*, *the Military Journal of Operations*, the Marine Corps' Strategic Initiatives Group (SIG) and significant focus by both former and current Commandant's published works. For instance, in a February 2012 *Marine Corps Gazette* article titled, "What Pete Ellis might think about today: Alternatives for Operation Plan 21," Lieutenant Colonel F. G. Hoffman wrote about the relevance of Pete Ellis to our modern, increasingly chaotic world. Ellis had done his own pioneering study in the inter-war years of the 1930s, championing amphibious doctrine and in so doing helping to ensure the USMC possessed this capability when the Second World War erupted in the 1940s. Such a model is worth consciously emulating today.

The Hoffman article stressed the importance of the Marine Corps to continue its proactive commitment to the future while it faces certain budget cuts and the focus of additional scrutiny as the war in Afghanistan ends. Additionally, he described his vision of the future operating environment. This environment is one in which a number of failed states throughout the globe contributes to an increase in the rise of non-state actors. Further, he theorized that the United States would not ever fight a conventional war again. As a result, he recommended that

the Marine Corps prepare itself for this course of action. They would accomplish this by equipping, manning, and training itself to fight small wars throughout the world.

The future evolution of warfare would gravitate towards fifth generation. This is a type of warfare centered on an enemy who uses political, social, economic, and military networks in which to accomplish attacks.⁵ Lieutenant Colonel Hoffman stressed that the role of the Marine Corps in this type of warfare will become increasingly vital to the defense of the nation. The author is convinced that the United States will not face a peer competitor. Currently, recent studies conducted by prominent think tanks like Stimson, CATO, Brookings, Rand Corporation, Center for a New American Security, American Enterprise Institute, and Center for Strategic and International Studies that examine funding decisions post-conflict communicate the same message, that the future of warfare will be irregular. It is the studies by these institutions, which have a significant influence in Washington, that are the focus for this work.

Still others have suggested and warned that the USMC risks becoming obsolete as the United States does not want nor need a second land army. Further, that the 21st century Marine Corps must redefine its role as distinct from the other services. Included in this role is a return to its traditional role as an amphibious force in readiness. The expeditionary nature of this role includes the following:

1. To seize or defend advanced naval bases and to conduct such land operations as may be essential to the prosecution of a naval campaign.
2. To provide detachments and organizations for service in armed vessels of the Navy or for protection of naval property on naval stations and bases.
3. To develop, with the other Armed Forces, the tactics, techniques, and equipment employed by landing forces in amphibious operations.
4. To train and equip, as required, Marine forces for airborne operations.
5. To develop, with the other Armed Forces, doctrine, procedures, and equipment of

interest to the Marine Corps for airborne operations which are not provided for by the Army.

6. To be able to expand from peacetime components to meet the needs of war in accordance with mobilization plans.

This MMS looks to add to this discussion by demonstrating that the new world order requires a balanced force capable of addressing new and unique threats as well as traditional threats posed by nation-state. These increasing threats require that the United States possess viable expeditionary forces. For the USMC, this means it must possess an amphibious capability not fully appreciated by those recommending cuts in the post-conflict era. This MMS argues that corrective action is required and must take the form of an investment of capital, time, and doctrine oriented towards the integration of this capability to meet traditional and future threats.

COMPONENTS OF SUCCESS

The Marine Corps published *Vision 2025* during former Commandant General Cartwright's tenure. This document was the impetus for change and caused many within the ranks to realize that the Marine Corps evolved away from a middleweight force as it conducted extended land operations in Iraq and Afghanistan. Further, the document was General Cartwright's vision of the core competencies that the Marine Corps must be prepared to execute on the future battlefield.⁶

This effort examined several issues, but in the context of this MMS, one stands out as most important. Competency four was that the Marine Corps must be able to conduct joint forcible entry operations from the sea and continue to develop landing force capabilities and doctrine.⁷ Within this competency, he reinforced that the Navy and Marine Corps team was the United States primary capability to swiftly project and sustain combat power ashore. He

communicated that this capability is key to accomplishing missions across the range of military operations. General Cartwright believed it imperative that the Marine Corps maintain these strategic capabilities and continue to focus on the development of amphibious resources and doctrine. His vision, though effectively communicated and documented, was not initially embraced. Until recently, it has not gained a significant amount of momentum until coming to the forefront of the current commandants policies and as a result, a priority for both the Marine Corps Warfighting Laboratory and the Strategic Initiatives Group.

Our current Commandant, General Amos, sees the maintenance of our amphibious doctrine as a Title X responsibility.⁸ Its mission was originally introduced in the National Security Act of 1947 and amended in 1952. Primarily it was officially created as an amphibious force in readiness. Further, the Commandant has stressed that the Marine Corps must be able to accomplish these types of missions with the force size, equipment, and training possessed today. Our commitment to be most ready when the Nation is least ready will have significant positive ramifications for our country and the future of the Marine Corps. This was further echoed by the 82nd Congress.⁹

These comments, by current and former Commandant's alike, served as wake-up calls for many in leadership positions throughout our service. They communicated a realization that as we shift to the Pacific and face other unidentified threats we must recover those skill sets that were lost during the past ten years. This transformation has caused the Corps to lose a wealth of knowledge and experience while adapting to a counterinsurgency doctrine that included a shift in tactics, techniques, and procedures. Additionally, we have adopted equipment sets that are not conducive to load plans for the conduct of amphibious operations. The appearance of the ramifications of decisions during the past ten years may not be readily apparent in the immediate

future; however, the failure to change the course of our decisions will have significant negative ramifications for the future of our nation and its security. A failure to accomplish our primary mission would endanger the future of the Marine Corps. As a result it is imperative that we are most ready when the nation is least ready.

Leading the transition of the Marine Corps to a return to its amphibious roots are the Strategic Initiatives Group and the Marine Corps War fighting Laboratory aboard Quantico, Virginia. The laboratory works across the six war fighting functions and the range of military operations in order to provide solutions to future challenges. Additionally, they possess a business and financial management office that provides guidance in contracting and funding. The laboratory is task organized to accomplish a variety of tasks that include: experiment, science and technology, operations and center for emerging threats and opportunities.¹⁰

A significant portion of the laboratory's time is spent on expeditionary operations to ensure that the Corps remains an amphibious force. It has determined that effective sea basing and the ability to maneuver from the sea are critical capabilities to the Marine Corps and its ability to carry them out crucial to our Nation.¹¹ As a result, it has spent a significant amount of time developing future doctrine and determining means to fulfill it.

At the forefront of much of their writing is the future operating environment. The current and future operating environments are unstable and unpredictable. Though the Cold War ended more than twenty years ago, only recently have we realized that the world, has, as a result become increasingly unstable thus contributing to the shape of a new world order. The world's population growth is expanding and it is expected that this expansion will continue in high density areas.¹² By and large, these high density areas are in the littorals. These areas are those in which conditions for survival are most conducive as they provide the most significant amount

of human requirements. This growth; however, will contribute to instability as food, water, and other vital natural resources become scarce due to increased demand. Historically, populations have warred due to a lack of the basic requirements for survival.

Additionally, state and non-state actors will increasingly acquire longer range anti-access/area denial (A2/AD) weapon systems aimed to asymmetrically attack and disrupt our military forces. It is argued by many that the Navy and Marine Corps must re-focus on teamwork. The method to do this is through a flexible, balanced expeditionary force prepared to meet operational demands in this changing environment. It is one in which enemies enjoy more capability and the fallout of military operations are more uncertain due to the number of second and third order effects.

This balance and flexibility revolves around the six core capabilities of maritime power: forward presence, deterrence, sea control, power projection, maritime security, and humanitarian assistance and disaster response.¹³ Access is seen as the key to accomplishing each of these. Further, the core of this effort is the Navy-Marine team operating across the range of military operations from flexible deterrent operations through joint forcible entry operations. Again, the argument is that the services have grown far apart from one another during the past decade. The Navy's role in Afghanistan was diminished as it was a fight exclusive to land. This; however, decreased the number of Marine Expeditionary Units afloat as the number of forces operating on the ground in Afghanistan increased. At the crux of the argument regarding the future of joint amphibious operations or the future of amphibious warfare are the degradation of amphibious shipping and the lack of amphibious connectors.

As a result of the fight inland, amphibious procurement was reduced that further degraded an aging equipment set. There are numerous requirements to ensure that the Marine

Corps amphibious option is viable. These include naval shipping, amphibious connectors, and a robust anti-mine warfare capability. Crucial to horizontal ship to shore movement are amphibious connectors. Connectors are not an example of doing more with less. The greater number of available connectors increases the speed by which forces can travel from ship to shore and thereby mass ashore and seize inland objective areas. Additionally, the more rapidly ships offload, they depart the landing area faster and as a result are less vulnerable to the myriad of anti-access and area denial threats that exist.

The Marine Corps primary connector is the advanced amphibious assault vehicle (AAV-7A1) which entered service in 1972. During its service life, the platform has received a number of service life upgrades, aimed at modernizing key operating systems and improving its performance. As a result of its age, a contract was awarded to General Dynamics Corporation in 1996 to begin full scale engineering of a replacement for this aging technology. This platform would be called the expeditionary fighting vehicle (EFV). In July 2001, a cost-plus contract was awarded for the systems development and design phase of the program due to its early success and promise.

It was believed by many that this platform would place the Marine Corps capabilities at the forefront of the 21st century. Like many programs under development, the program had numerous problems early on that included delays, prototype and reliability issues. In 2006, an Operational Assessment was conducted and a redesign of the entire program was directed due to reliability issues and maintenance burdens. This would require another contract for an additional US\$143.5 million in February 2007.¹⁴ In June 2007, a reset of the development phase due to this contract delayed completion for an additional four years. Finally, in January 2007, during a Pentagon briefing, Secretary of Defense Gates cancelled the program due to its significant costs,

maintenance, reliability, and performance issues. Further, it was not performing to the necessary requirements facilitating Marines landing on a beach and providing further mechanized lift inland.¹⁵ This occurred after nearly ten years of research, development, and significant investment of time, personnel, and capital. The cancellation of this program further set back ship to shore connectors and the horizontal evolution of Marine Corps amphibious operations. This is further exacerbated by the lack of clear direction the Marine Corps is taking with the program. To this date, it has not been determined whether the Marine Corps will pursue a new platform or whether it's current platform would receive another service life upgrade.

The United States Navy ship to shore connector is the landing craft air cushion (LCAC). It is a type of air-cushion platform (hovercraft) that is used by assault craft units. These transport weapons systems, equipment, cargo and personnel of the assault elements of the Marine Air/Ground Task Force both from ship to shore and across the beach. Currently, 91 are in service and they provide significant capabilities to the amphibious force. They can cross 70% of the world's beaches, possess a 200-mile operational range while transporting 60-tons of cargo, men, and equipment, and travel at speeds up to 40 knots under calm sea conditions.¹⁶ It began its service life in 1984 and like its Marine Corps counterpart, the LCAC is aging. It is currently undergoing a service life extension program that is improving its mine detection capabilities and other system upgrades. Its current inability to deal with anti-access (A2) threats, questionable proficiency in mine detection, and other area denial threats as well as its inability to operate in rough seas threatens the ability to rapidly phase combat power ashore.

This setback is quantified by drawing a correlation to the landing at Guadalcanal when the United States used 475-landing crafts for the operation.¹⁷ The large number of connectors allows a rapid build-up of combat power ashore, making both naval and landing forces less

vulnerable. A less vulnerable force means fewer casualties for the assault force as well as less time in the amphibious objective area by naval shipping. We currently possess less than 100 of these connectors, as mentioned are rapidly aging, and becoming technologically irrelevant. So, with this limit in capacity to get a force ashore, it is clear that the Marine Corps' ability to act as an expeditionary force in readiness has been degraded. The argument that we can do more with less in this area is not valid. Anti-access (A2) and access denial (AD) weapons are becoming more common and technologically advanced and pose a greater threat to an already vulnerable amphibious force.

The amphibious connector problem is complicated by the number of amphibious ships owned by the United States Navy. The Secretary of the Navy, Chief of Naval Operations, and Commandant of the Marine Corps have determined that the Marine Corps requires a two Marine Expeditionary Brigade capability.¹⁸ This would facilitate operations in multiple areas. In order to execute this, the United States Navy would require at least 38 L-Class ships. This would provide a buffer above the requirement of 17 ships to embark one Marine Expeditionary Brigade (MEB) and operates off of the assumption that a number of ships will be inoperable due to required repair or maintenance at various times. The dilemma is that the Navy currently possesses 29 L-Class ships. Further, it will be many more years before the Navy attains the 38 required. Currently, we only possess the capability to embark 1-MEB reinforced at any one time. Amphibious shipping has been at the lowest level on the hierarchy of needs within the Navy and its budget requirements. Again, during the last ten years of accomplishing combat operations ashore, we have alienated ourselves from the Navy. This has contributed to the use of its budget in other areas and is difficult to recover in an era of challenging budgets. Regardless of the type of amphibious operation required it is imperative that the Navy and Marine Corps

modernize their equipment for the accomplishment of their mission sets. These requirements are not new and it is necessary to harness technology in order to facilitate our mission requirements.

Recently, the first of the America class amphibious assault ship (LHA-6) has been commissioned. There exists a significant amount of expectation for this ship as it is optimized for aviation, capable of supporting current platforms like the MV-22 Osprey as well as future aircraft like the F-35, Joint Strike Fighter. Unlike its predecessors, the Tarawa class of ships, it does not possess a well-deck. This is due to the increased deck space required by both of the aforementioned rotary and fixed wing air frames and their larger logistical and maintainer requirement. This prevents the embarkation of Marines and equipment that would normally be inserted via horizontal means. As a result, it is solely limited to supporting the MAGTF vertically with its rotary and fixed wing assets. Though this vessel possesses a myriad of technological advancements, it sets back amphibious capability as it limits the force to vertical insertion vice a combination of horizontal and vertical means.

Additionally, coming on line is the LPD 17 San Antonio class ship. The LPD 17 San Antonio class ships are a key element of the Navy's ability to project power ashore. They are designed to functionally replace more than 41 ships (the LPD 4, LSD 36, LKA 113 and LST 1179 classes of amphibious ships), providing the Navy and Marine Corps with modern, sea-based platforms that are networked, survivable, and built to operate with multiple 21st century platforms. The principal mission of LPD 17 class amphibious transport dock ships is to transport and deploy the necessary combat and support elements of Marine Expeditionary Units and Brigades (MEUs/MEBs). The ship will carry approximately 720 troops, have the capability of transporting and debarking air cushion (LCAC) or amphibious assault vehicles, and

accommodate virtually every size of Marine Corps Helicopter to include the MV-22 Osprey. These ships will support amphibious assault, special operations, and expeditionary warfare missions through the first half of the 21st century. These ships carry a hefty price tag though at approximately 1.2 billion dollars each.¹⁹ The dilemma is twofold: first, in a restricted budgetary environment, sacrifices must be made in other areas to take such a substantial portion of the budget; second, these types of ships are extremely low on the navy's priority list. Further, they are vital to contributing to solving the problems of future amphibious operations. The bottom line is that these platforms are crucial to solving problems associated with the future of amphibious operations; however, will not be available until 2018.

CONFRONTING HISTORY—THINK TANK FINDINGS

The shortfalls in the areas of amphibious shipping and connectors are real and will have significant ramifications for the future of amphibious operations. Though our withdrawal from Afghanistan is still nearly two years away, the interwar period has already commenced. Department of Defense spending is already being cut. The Fiscal Year-13 Department of Defense Budget was reduced to \$525 billion, a reduction of nearly \$50 billion from the FY-12 budget.²⁰ Further, the Budget Control Act of 2012, sequestration, has taken effect and this has cut an additional \$500 billion dollars from the Department of Defense Budget over the next ten years.²¹ Budget cuts are an obvious and common trend when we look at any *inter-bellum* period in history. Vital though, is how the future budget will be allocated for potential threats and this is particularly vital as the Marine Corps attempts to remain expeditionary in nature.

One way to make this current calculation is to ensure that such an analysis is based upon historical perspective. The inter-bellum periods of the previous 100-years possess numerous parallels. First, many of the nations involved became increasingly isolationist, due to physical,

moral, and economic devastation. These elements placed the mere thought of another war as unimaginable. In turn, this prevalent attitude contributed to an average contraction in the size of military forces from 15-25%.²² Finally, due to economic constraints, military budgets traditionally decline posing significant and obvious challenges. This key parallel provides the fuel for transformation. This effort must be made but done so smartly. There are a number of recent studies that defy this mandate since they stand in the way of the evolution crucial for the Marine Corps preparation for future operations.

There exist a number of major studies conducted in the latter part of 2012 by highly regarded research institutes. These include Stimson, Brookings Institute, RAND Corporation, CATO, Center for New American Security, American Enterprise Institute, and Center for Strategic and International Studies. These institutions are nonprofit public policy organizations located throughout the United States. Their self-proclaimed missions include: the conduct of high-quality, independent research that provides innovative, practical recommendations to advance various goals. These goals seek to strengthen American democracy, foster economic and social welfare as well as the security and opportunity of all Americans, and secure a more open, safe, prosperous, and cooperative international system.²³ The following analysis will address their recommendations to the United States government with regards to changes within the Department of Defense as our country prepares for future operations in an interwar period.

Their Position

The studies related to funding post-war revolve around two premises. The studies use the last ten years of war in Iraq and Afghanistan as primary evidence to support their theories. Events in Iraq, Afghanistan, and other areas of the Middle East like Egypt, Libya, and Syria provide credence to their point of irregular warfare as the predominant character of warfare.

Secondly, Department of Defense budget cuts are a necessity and they recommend these cuts without a firm understanding of various service roles. Each of them points to cuts without making sufficient strategic calculations leading them to classify the future character of war as non-conventional. As a result of this conclusion and their belief that anti-access and area denial weapons will be so substantial that they will increase the danger to our forces and as a result, the likelihood of amphibious type operations or large scale warfare will be less likely.²⁴

Center for American Progress

The Center for American Progress (CAP) sees the defense budget as extremely high and remarks that it exceeds defense budgets of the Cold War.²⁵ They accuse the Department of Defense (DoD) of squandering money while other agencies within government take large cuts and still operate effectively. Additionally, DoD executed cost over runs on many of their procurement programs while wasting nearly \$50 billion in cancelled programs. Further, the department is so poorly managed that they will not even be able to conduct an audit until 2017.²⁶

CAP theorizes that the United States will not engage in large scale counterinsurgency or nation building operations on foreign soil. Further, the shift to the Pacific should allow the Marine Corps to seek additional operating efficiencies and a further reduction in the Marine Corps end strength. As a result of the absence of a large scale ground conflict, CAP sees a need for the size of the Marine Corps to be further reduced to 175,000 or less.²⁷ They assume that asymmetrical threats can be handled by drones and special operations forces. Additionally, they point out that the previous interwar defense budgets decreased DoD spending by 27% post the Korean War, 29% post- Vietnam, and 35% as the Cold War came to a close. Something similar can and should happen now.

RAND

RAND advocates that reducing the budget will require the government to make certain strategic choices and accept a degree of risk. It warns against making cuts for the sake of cutting and recommends carefully analyzing where and why cuts must occur. Further, they suggest that United States ambitions have become more aggressive since 2001. During this time military missions expanded to include large stabilizations operations, most forms of irregular warfare and nation building. They note that former Secretary of Defense Leon Panetta identified the future threats to the United States defense establishment within the irregular spectrum. RAND also states that the United States should no longer be scaled to conduct large scale wars and prolonged stability operations.²⁸

The RAND study further points to the threats the United States has and will face in the future are shared by our allies. They point to the fact that nation-state threats are not likely and irregular threats will be dominant. Also, that allied defense spending as a ratio of GDP is significantly less than the United States. It is time that they assume their fair share of the burden. They recommend against a war with China as they and the United States have extremely close ties and depend upon one another economically. Additionally, that China possesses numerous issues within the region itself. Through its actions, the United States has enabled a lack of defense spending by many countries. This as the United States has chosen to be strong thereby enabling various countries to focus less on threats.²⁹

RAND further recommends that the United States cede many of its responsibilities to its allies that include NATO in the European Theater, and Middle East as well as Japan, Australia, South Korea and others in the Pacific Rim. With this sharing, the United States would maintain the ability to conduct long range strikes and conduct command, control, communications, intelligence, surveillance, and reconnaissance needed in the region. This burden-sharing could

be conducted rapidly by many of our allies. In fact this would contribute immeasurably to common security through redirecting of capabilities.³⁰ This could be furthered through assisting in building our partner force capacity through assisting them build and train their forces. This would resist insurgency forces and at the same time reduce the threat from neighboring states. This would serve as an alternative to the build-up of large scale forces; however, would but provide a better way to counter regional extremism.³¹ RAND's only recommendation for the Navy, without outlining specifics, is aimed at the diversity of its strike platforms, and long range capabilities. They do not provide any input on improving amphibious capability or technological edge.

Stimson

Stimson echoes many of the other studies, though its research provides a more detailed opinion. Their experts advocate a strategy they refer to as strategic agility in which the US takes advantage of its flexibility, agility, and reach of US air, naval and ground forces.³² Through the use of this the United States will rely more on partnering with allies and sharing the cost burden as well. In doing so, the US can promote and defend its interests with moderate risks. The Stimson study, like the others, proclaims the wars in Iraq and Afghanistan over and that the likelihood of the United States facing a sizable military threat is remote due to limited military capabilities in potential threat countries like Iran and China. Thus the US faces a less threatening environment despite global instability that is prevalent throughout the world. They see this as a trend since the end of the Cold War and state that the United States saw lesser ultimate risk.

Stimson sees the primary roles as the following: defend the homeland, defend allies against attacks, and finally to ensure unimpeded access to the global commons. This is vital for global trade and the ability to freely exploit resources in international waters in accordance with

the law of the sea treaty.³³ The study advocates diplomacy in conjunction with forward military presence while addressing these issues.

Prior to engaging in contingencies, the US should seek to limit its objectives. Stimson does not recommend becoming engaged with large ground forces. In the event of another type of Iraq or Afghanistan situation, the US should opt for special operations forces and air assets to selectively attack threats on the ground. Examples of these potential threat areas exist in Africa and still in the Middle East. While the US military is more significant than others in the world, it is not particularly well-suited for unconventional wars on the ground to include insurgencies.³⁴

While providing recommendations for defense forces, Stimson recommends that the United States Navy retain its current capability as it is the key component of strategic agility. This is due to its ability to project power anywhere across the globe and its various platforms provide strategic deterrence in these same regions. Further, it recommends its current inventory of vessels should be maintained. This inventory includes its carriers and amphibious platforms. Further, it states that the Navy has efficiently managed its modernization program.³⁵

For the Marine Corps it states that the expeditionary role fits in well with the new United States strategy; however, recommends that they draw down to 150,000 personnel. It communicates that the Marine Corps would have sufficient forces to deploy on a rotational basis and be prepared to respond to various contingencies throughout the world. Those are the facts surrounding their recommendations for the Marine Corps. They do not speak to the amphibious capability or upgrades required to improve upon responding to the littorals throughout the world.³⁶

ASSESSMENT

The studies analyzed above are three of six this work focused on; however, typify what the other studies conclude, only in greater detail. They recognize that the chance of conflict with a nation state that includes Iran, China, and India based upon their population growth, economy, and nuclear capability. While they recognize the potential for the United States to engage in hostilities with a nation state, they also believe it unlikely due to potential costs and the fact that we do not yet face a legitimate peer competitor. It is unlikely that the United States will engage in a protracted land battle with massive sized forces. These types of operations, much like those that occurred during World War II in which the United States fought in two separate theatres, are not globally feasible and highly unlikely. This is due to the scale of the globalized economy and the interconnectedness of countries. Additionally, these types of conflicts are not palatable to modern society. Further, there exists a belief that nuclear arsenals dissuade various nation states from engaging in massive land engagements. The reports do not adequately address the fact that countries like Iran race to develop nuclear weapons and others, like North Korea, continue to improve its ballistic missile program.³⁷

As a method to counter this, the think tanks recommend a strategy of punish and contain.³⁸ Again, large militaries are not required in this scenario. In order to accomplish this strategy, catastrophic damage will be inflicted upon an adversary with the intent of inhibiting its ability to project power militarily. It is believed that such strikes will cause such a significant amount of damage to a country that it will inhibit further military action. To further validate this argument they cite the United States militaries technological advances in targeting and strike precision.³⁹

These studies all recommend a considerable downsizing in our military forces. They use the scenarios above to support their argument and inter-relate them to the fact that budget cuts

within the Department of Defense have already begun. The cuts are a reality of any interwar period and mirror the economic times. Globally, allied militaries are shrinking as they face challenging economic times. While budgetary constraints support the argument for reductions in force size, it is troubling that each of the studies supports such acts.

What are the odds that six independent institutions come to the same conclusions about budget, the future character of war, and recommend nearly the same courses of action? These think tanks, no matter left or right in political orientation, all agree on a restrained budgetary environment. Each of the think tanks assess the future of conflict as one where irregular warfare will be predominant and see large scale land battles as unlikely. Finally, each recommends a considerable force reduction across all of the services.

Budget cuts have become a reality as the Department of Defense operates on a continuing resolution annual budget.⁴⁰ As a result, it is understandable that each of the studies propose various budget scenarios that include significant cuts. The United States has recently maximized its debt ceiling at nearly \$17 trillion. Cuts are imperative across all departments of the federal government. A failure to address our fiscal irresponsibility will only further jeopardize the national security of the country.

Though it is difficult to fathom the future of warfare, it is clear that the character of war will change. Throughout recorded history, no two wars have been alike. Further, the next war in any country's history has not looked like the last war. So based upon that historical evidence, it is difficult to conclude that our next war will look like those we have been engaged in during the past ten years.

Finally, the assessment that large scale land battles are a thing of the past is difficult to accept. The recent Russian invasion of Georgia using combined arms that included cyber and

kinetic operations demonstrates that there exists a probability of invasions by aggressor nations into weaker, vulnerable nation states. Additionally, the growth of China and its threats in the Pacific Rim to neighboring countries like Taiwan, Japan, and others is a reality. As Chinese power increases, the likelihood of further incursions will substantially grow.

It is fair to say that the recommendations in each of the studies are potentially dangerous. Each poses the potential for significant negative ramifications for the safety and security of the United States. These think tanks use dangerous language in their assessments, provide open ended comments that do not provide strong conviction, over simplify the nature of the problem, and provide questionable strategic calculation. Each of these studies over simplifies the problem which contributes to a lack of understanding of the ever changing character of war.

Their strategic calculations are based upon the last war and not necessarily the next war. The danger of this is exemplified in the United States entry into the Iraq War in 2003.⁴¹ During the interwar period from 1991-2001, our country failed to accurately assess a post-cold war world. We drew from past experiences, did not conduct foreword thought, and therefore limited ourselves. Sadly, we prepared, planned, and initially fought the war we wanted to fight whose nature was conventional. It failed to calculate an increasingly unstable world order dominated by non-state actors, terrorist, and criminal organizations that presented hybrid threats. It is likely that these think tanks are committing the same error. As a result, it is likely that the United States will repeat past mistakes in wanting to fight a war without regard for the enemy.

COMPLETED WITHOUT THINKING OF THE MARINE CORPS MISSION

Earlier in the paper, the Marine Corps Title X responsibility was explained as a “force in readiness.”⁴² Over time, this has evolved and taken on new meaning. Many in society and government call the Marine Corps our “Nation’s 911 force.” That is, the Marine Corps is called

upon for any contingency to be most ready at times when our country is least prepared for crisis.

There have been seven specific responsibilities associated with our traditional role that include:

- 1.) The seizure of advanced naval bases
- 2.) Provide attachments and organizations for service in armed vessels of the Navy or for protection of naval property on naval stations and vessels
- 3.) To develop, in coordination with other armed services, the tactics, techniques, and equipment employed by landing forces in amphibious operations.
- 4.) To train, and equip, as required, Marine forces for airborne operations
- 5.) To develop, with the other Armed Forces, doctrine, procedures, and equipment of interest to the Marine Corps for airborne operations which are not provided for by the Army
- 6.) To be able to expand from peacetime components to meet the needs of war in accordance with mobilization plans
- 7.) Conduct other duties as the president may direct⁴³

These institutions do not have a thorough understanding of the Marine Corps mission and as a result are missing the viability of the Marine Corps role as an amphibious force in readiness, especially as it relates to the future of warfare. The Marine Corps amphibious capability possesses utility in any future scenario and in cases that exceed a COIN environment or a conventional battle space. That is why it is unnecessary to attempt to re-define its role. By assuming the United States will only be involved in irregular wars overlooks the key capability of our service.

Solution

It is vital to the future of our military and national security that we do not fail in our efforts during this period. The factors that get it right revolve around a variety of inputs and characteristics. It is vital to our success that we get the strategic concept right. In order to achieve this we must recognize that we will face a variety of adversaries. We cannot look at one

adversary and then solely focus on them as we will not be successful when we do enter combat operations. Additionally, we must adopt a mindset that mirrors that of an entrepreneur in our efforts towards innovation. On the surface, this sounds much like private sector business; however, this mindset will achieve the most meaningful change. We must encourage and harness the innate ability within our military for the capacity to succeed, willingness to take risk, and the capability to manage a business model. These common factors must be embraced within our military culture as we enter the interwar years.

The proximity of potential threats to the littorals worldwide requires that the United States possess a viable, operationally, and economically sound means of "operational maneuver from the sea" in order to execute operations across the range of military operations that have the potential to provide humanitarian assistance and disaster response at the low end of the spectrum to exploiting enemy vulnerabilities, and dealing a decisive blow to adversaries at the high end of the range. After ten years of counterinsurgency operations, the United States Marine Corps does not possess the expertise, platforms, or ship to shore connectors to conduct forcible entry operations. The importance of rebuilding this capability is vital to our future. This will not be easy to do because the United States is operating under severe budgetary restraints that could limit ability to take the necessary steps to defeat anti-access weapons thereby enabling a foe to achieve area denial. How does the United States update its nearly obsolete amphibious forces to gain access via forcible entry while operating in a restrictive budgetary environment?

It must be done and the input from think tanks takes us further from this goal. In the rush to make cuts, conventional warfare has become the label to reduce funding and this in favor of meeting threats from irregular warfare. Here is a needed imperative, both the need to cut and the need to think about future warfare. However, allowing the term conventional to be the measure

of reduction is a key mistake. This metric will impair USMC capability in terms of its most vital function, seizing a forward base of operations. This may well be a conventional effort; however, it can just as easily be a key capability to confront an irregular threat as well. After 10 plus years of a war-footing designed to meet irregular threats, this capability has atrophied. Should the cuts recommended by think tanks go into effect; the ability of the USMC to retain this functionality will be all but lost. This is a failing that cannot be allowed when looking ahead. The primary mission of the USMC is not simply that of conventional or unconventional. It lay in both and for this reason, should be restored and retained as a means to better achieving the tough policy decisions in the future.

Conclusion

Herein lays the connection to the operational art. There have been no less than six interwar periods during the last 100-years. Of these periods, only one of them yielded significant and meaningful changes that produced innovation that significantly contributed to our next war. Of the four elements of a successful war year, the United States and its leadership got each of them right. First, they made a series of strategic calculations, analysis of perceived threat, and determining a knowable enemy in identifiable theaters of operation. The United States prepared for operations in the Pacific Theatre of operations throughout the interwar years. They understood it was vital to develop a capability that would enable forces to rapidly build combat power ashore. Next, technological determinism while operating under severe economic restraint should create an environment that is extremely focused towards choosing new technologies and methods to conduct warfare more efficiently. During much of the last ten years, the United States had possessed an unlimited budget. For the current generation within our militaries, this is going to contribute a significant amount of growing pains during the first couple of post war

years. It will take some time for the personnel to adapt to this restrictive environment and focus towards our next war. Once this focus is achieved, there are likely to be some interesting developments. Finally, the service culture will speak loudly regarding change. This is the final element of successful innovation during the next interwar years.

The use of the interwar years by the United States Marine Corps must demonstrate an ability to change and accept change. The exploration of new and untested doctrine will be key to the future of amphibious doctrine. There have been numerous times within our Corps' history in which we have operated under budgetary restraints and equipment and figured out what was next. We have a proven heritage of accomplishing any mission within the spectrum of conflict and this mindset in turn set the standards for other services to emulate.

As we embrace change, we must look across the services, as well as the skillful and selective combination of service capabilities into Joint Task Forces. Going forward it will provide commanders great flexibility in tailoring forces to meet the required objectives of the time. Further, this array of joint forces will provide the enemy with an overwhelming array of capabilities against which to defend. This array will provide potential adversaries with a variety of dilemmas that they will not be fully prepared for when looking at the joint force operational concepts, doctrine, tactics, techniques, and procedures. We must continue to hone our ability to work jointly, leadership demonstrate institutional, organizational, intellectual, and system interoperability that will allow forces to operate coherently at the operational level without self-induced friction. Further, we must continue to dramatically enhance effectiveness through the blending of complementary Service capabilities.

Bibliography

Primary Sources

Amos, James F. General, Commandant of the Marine Corps. Remarks to the *Surface Navy Association Symposium*, 13 January 2011.

Bensalem, Nora. *Sustainable Pre-eminence: Reforming the United States Military at a Time of Strategic Change*. Center for a New American Security. May 2012

Conetta, Carl. *Reasonable Defense: A Sustainable Approach to Securing the Nation*. *Project on Defense Alternatives*. Brookings Institute. November 14, 2012.

Johnson, Stuart. *A Strategy-Based Framework for Accommodating Reductions in the Defense Budget*. RAND Corporation. 2012.

Korb, Lawrence J. *\$100 Billion in Politically Feasible Defense Cuts for a Budget Deal*. Center for American Progress. December 6, 2012.

Stimson. *A New U.S. Defense Strategy for a New Era: A Study of Findings by the Defense Advisory Committee*. November 2012.

Secondary Sources

Canty, Jeremiah D. "The Case for Amphibious Forcible Entry." www.defenceiq.com. Naval and Maritime Defense. August 2012.

Francis, B. A. "Threat Level Analysis of Amphibious Operations-Review and Directions." Australian Department of Defence. Defence Science and Technology Organization. 2000.

Freedberg Jr, Sydney. "Islamic Militants Bloody US Forces In Big Army Wargame," *Defense*

- AOL Online, June 6, 2012. <http://defense.aol.com/2012/06/06>.
- Freedberg Jr, Sydney. "Tough Wargame Exposes Army Shortfalls," *Defense AOL Online*, June 12, 2012. <http://defense.aol.com/2012/06/12/tough-wargame-exposes-army-shortfalls.2012>).
- Freier, Nathan. "The Emerging Anti-Access/Area Denial Challenge," Center for Strategic and International Studies, May 17, 2012.
- Gatchel, Theodore L. *At the Water's Edge*. Naval Institute Press 1996.
- Gregory, Barry. *Amphibious Operations*. Blandford Press. 1988.
- Headquarters, United States Marine Corps. *Marine Corps Operating Concept for a Changing Security Environment*. Washington, DC: Headquarters U.S. Marine Corps, March 2006.
- Headquarters, United States Marine Corps. *Concepts and Programs 2011*. Washington, DC: Headquarters U.S. Marine Corps, 2011.
- Headquarters, United States Marine Corps. *Amphibious Warfare Board. A Conceptual Study 1985-2000*. Washington, DC: Headquarters U.S. Marine Corps, 1973.
- Headquarters, United States Marine Corps. *A Computer Method of Analysis of Amphibious Ship-to-Shore Movements. CNA Computer Program*. Washington, DC: Headquarters U.S. Marine Corps, 1965.
- Hoffman, Lieutenant Colonel F.G. "What Pete Ellis Might Think About Today. Alternatives to Operation Plan 21." *Marine Corps Gazette*. February 2013.
- Inspector General United States. *DoD Summary of DOD Office of the Inspector General Audits of Financial Management" for Fiscal Year 2009*. Report Number D-2010-002. October 19, 2009.
- Jacob. W. Commander, USN. "Amphibious Operations in the 21st Century." United States Army

- War College. 7 April 2003.
- Manyin, Mark E. Congressional Research Report. *Pivot to the Pacific*. March 28, 2012 .
- Millett, Alan B. & Williamson Murray. *Military Innovation in the Interwar Period*. Cambridge University Press 1996.
- Shaw, Scott E. *An Objective Oriented Ship to Shore Movement Analysis Model*. Naval Post Graduate School. 1992.
- Silva, Richard. *Testing and Developing for Amphibious Warfare*. Defence IQ. 2012.
- Speller, Ian & Tuck, Christopher. *Amphibious Warfare*. MBI Publishing. 2001.
- Strain, Patrick M. *Amphibious Operations in the 21st Century. A Viable F-E Capability for the Operational Commander*. SAMS, Leavenworth, Kansas. 1992.
- Sullivan, Michael J. Expeditionary Fighting Vehicle Costs, Schedule, and Performance Risks. Government Accounting Office. July 2. 2010.
- United States Marine Corps. Marine Corps Combat Development Command. “Amphibious Operations in the 21st Century.” 18 March 2009.
- United States Navy. http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=1500&ct=4.
- Van Tol, Jan. *AirSea Battle: A Point of Departure Operational Concept*, Center for Strategic and Budgetary Assessments (Washington, DC: 2010).
- Wolf, Richard. “U.S. Debt is Now Equal to Economy.” *USA Today*, January 1, 2012. <http://www.usatoday.com/news/washington/story/2012-01-08/debt-equals-economy/52460208/1> (accessed July 30, 2012).

End Notes

-
- ¹ Williamson Murray and Allan R. Millett, editors. *Military Innovation in the Interwar Period*. Cambridge University Press 1996.
 - ² Richard Wolf. "U.S. Debt is Now Equal to Economy." *USA Today*, January 1, 2012.
 - ³ Joint Chiefs of Staff. *Joint Publication 3-02. Joint Doctrine for Amphibious Operations*. 19 September 2001. The five types of amphibious operations include assault, withdrawal, demonstration, raid, and others as directed from the joint staff. Further, the emergence of special operations forces have significantly reduced the amount of training that Marine Expeditionary Units conduct as part of pre-deployment work-up.
 - ⁴ Strategic Initiatives Group. Email. 11 February 2013. USMC/SIG appears very reticent to have this student reach out to think tanks. Therefore, it has been necessary to stick with the published documents from these think tanks that are in the public domain. In turn though, this has placed limitations on my research.
 - ⁵ Lieutenant F. G. Hoffman. "What Pete Ellis Might Think. Alternatives to Operation Plan 21." *Marine Corps Gazette*. February 2013. In a fifth generation clash scenario, the nexus of violent al-Qaeda associates, Islamic extremists, and transnational criminal organizations comes full circle. At the extreme range, it represents a return to the middle Ages. Large, violent gangs have proliferated throughout the developed world, with no compunction about urban violence. Non-state actors possess weapons of mass destruction and have successfully employed them. Several states in Africa and South Asia are virtually ungoverned. The United States economy has suffered a steep decline after the collapse of its car and banking industries.
 - ⁶ Headquarters United States Marine Corps. United States Marine Corps: *2025 Vision & Strategy*. November 2006. The Marine Corps core competencies reflect our skill set and what we do as a Corps. They include persistent naval engagement and always prepared to serve as our nations force in readiness. Employment of integrated combined arms across the range of military operations, and can operate as part of a joint or multi-national force. The corps provides specialized forces and detachments for service aboard naval ships, on stations, and for operations ashore. The corps conducts joint forcible entry operations from the sea and develops ambitious landing force capabilities and doctrine. The corps conducts complex expeditionary operations in the urban littorals and other challenging environments. The corps leads joint and multinational operations and enables interagency operations.
 - ⁷ Headquarters United States Marine Corps. *United States Marine Corps: 2025 Vision & Strategy*, November 2006, 5.
 - ⁸ National Security Act 1947 as amended in 1952. U.S. Code Title X.
 - ⁹ 82nd congress letter designating the United States Marine Corps a "force in readiness."
 - ¹⁰ www.mcwl@usmc.mil. Marine Corps Warfighting Laboratory. The site describes the organization and function of the Marine Corps War fighting Laboratory as the Marine Corps problem solving organizations. One of the few that receives a significant amount of funding for research and development.
 - ¹¹ MCWL.
 - ¹² United States Marine Corps. Marine Corps Combat Development Command. *Amphibious Operations in the 21st Century*. 18 March 2009.
 - ¹³ Expeditionary Warfare Conference, London, England.
 - ¹⁴ Sullivan, Michael J. Expeditionary Fighting Vehicle Costs, Schedule, and Performance Risks. Government Accounting Office. July 2. 2010, 19.

-
- ¹⁵ Richard Silva, “Testing and Developing for Amphibious Warfare,” *Defence IQ*. 2012.
- ¹⁶ United States Navy. http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=1500&ct=4.
- ¹⁷ Colonel Morrison. CSC Lecture. October 2012.
- ¹⁸ Headquarters, United States Marine Corps, Marine Corps Operating Concept for a Changing Security Environment. Washington, DC: Headquarters U.S. Marine Corps, March 2006, 16.
- ¹⁹ Vision 2025, 26.
- ²⁰ Office of the Undersecretary of Defense, *National Defense Budget Estimate for 2013*, Comptroller, March 2012, 8.
- ²¹ Mindy R. Levit, Congressional Research Report, *Budget Control Act of 2011: Budgetary Effects of Proposals to Replace the 2013 Sequester*, November 9, 2012.
- ²² Department of Defense. [Active Duty Military Personnel, 1940–2011](http://www.defense.gov). <http://www.defense.gov>. The table displays the size of each of the branches of the armed services from the period 1940–2012 over a time of 70 years. It includes those military personnel on extended or continuous active duty and excludes reserves on active duty for training.
- ²³ Michael O’Hanlon, *Defense Budget 2013 and Beyond*. Brookings Institute, 2012. This site speaks to the mission statement of this organization and defines its role within American society.
- ²⁴ Stuart Johnson, *A Strategy-Based Framework for Accomodating Reductions in the Defense Budget*. RAND Corporation. 2012, 26.
- ²⁵ Lawrence J. Korb. *\$100 Billion in Politically Feasible Defense Cuts for a Budget Deal*. Center for American Progress. December 6, 2012, 1.
- ²⁶ Inspector General United States. *DoD Summary of DOD Office of the Inspector General Audits of Financial Management” for Fiscal Year 2009*. Report Number D-2010-002. October 19, 2009, 5.
- ²⁷ Center for American Progress, 4.
- ²⁸ RAND, 26.
- ²⁹ RAND, 45.
- ³⁰ RAND, 31.
- ³¹ RAND, 45.
- ³² Stimson. *A New U.S. Defense Strategy for a New Era: A Study of Findings by the Defense Advisory Committee*. November 2012, 4.
- ³³ Stimson, 20.
- ³⁴ Stimson, 39.
- ³⁵ Stimson, 35.
- ³⁶ Stimson, 54.

³⁷ Olli Heinonen, *Irans Nuclear Clock and World Diplomacy*, Belfer Center. March 15, 2013.

³⁸ Stuart E. Johnson. *A Strategy Based Framework for Accommodating Reductions in Defense Budget*. RAND Corporation. 2012. The major goal of the next war is to deter aggression against an ally or partner and inflicting severe damage on the aggressor's ability to project military power. Post-major conflict operations would include minimal stabilization periods and not an extended, sizeable United States presence required for occupation in the area of operations. This change in war is confluent with the direction stated in the 2012 strategic guidance

³⁹ Stimson, 31.

⁴⁰ General James F. Amos. Commandant of the Marine Corps. Testimony Senate Armed Services Committee. 12 February 2013.

⁴¹ Anthony H. Cordesman. *American Strategic and Tactical Failures in Iraq: An Update*. Center for Strategic and International Studies. August 2006. Purely, the United States entered the Iraq using the premise of the removal of a harsh dictator and the possession of weapons of mass destruction as reasons to commence the ground war in Iraq. These were completely counter to what we were attempting to do in the war against global terrorism.

⁴² National Security Act 1947 as amended in 1952. U.S. Code Title X.

⁴³ National Security Act 1947 as amended in 1952. U.S. Code Title X.