NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

READY FOR THE HOME GAME?
THE SURFACE NAVY AND HOMELAND DEFENSE

by

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March 2022

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REPORT DOCUMENTATION PAGE	*Form Approved OMB No. 0704-0188*

1. AGENCY USE ONLY *(Leave blank)*	**2. REPORT DATE** March 2022	**3. REPORT TYPE AND DATES COVERED** Master's thesis

4. TITLE AND SUBTITLE READY FOR THE HOME GAME? THE SURFACE NAVY AND HOMELAND DEFENSE	**5. FUNDING NUMBERS**
6. AUTHOR(S) Joshua C. Miller	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000	**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	**10. SPONSORING / MONITORING AGENCY REPORT NUMBER**

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.	**12b. DISTRIBUTION CODE** A

13. ABSTRACT (maximum 200 words)

Strategically, it will always be preferable for the United States to fight "out there" where the conflict is far away from the homeland. But, as the Russian and Chinese navies continue to develop longer-range capabilities and other threats toward the U.S. homeland grow, it is crucial to examine how well the surface Navy is prepared to defend the homeland. Given both the emerging threats from peer competitors, such as Russia and China, and the surface Navy's prioritization of forces abroad, this thesis asks whether the surface Navy is adequately prepared to defend against such future threats to the American homeland.

Through a qualitative analysis of relevant literature, this thesis concludes that the American homeland will be targeted by peer competitors during a future crisis or conflict. Based on credible threats to the homeland, the Navy will have to balance appropriately on prioritizing and allocating forces abroad and at home. The Navy will have to break away from the traditional maritime strategy of primarily only fighting abroad, and it will need to provide assistance to enhance a layered defense approach to effectively defend the homeland in the future. Thus, this thesis recommends establishing a national combined maritime and aerospace defense command to ensure that air, land, and sea forces are prioritized and allocated appropriately for the defense of the American homeland during crisis or conflict in the future.

14. SUBJECT TERMS Navy, Homeland Security and Defense, NORTHCOM, NORAD, China, Russia, relations, defend, homeland, CONUS, Force Allocation, Maritime, Missile, NORMAD, WWII, extended deployment, binational, defense command, ballistic missile, cruise missile, hypersonic	**15. NUMBER OF PAGES** 85
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	**18. SECURITY CLASSIFICATION OF THIS PAGE**	**19. SECURITY CLASSIFICATION OF ABSTRACT**	**20. LIMITATION OF ABSTRACT**
Unclassified	Unclassified	Unclassified	UU

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18

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Approved for public release. Distribution is unlimited.

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THE SURFACE NAVY AND HOMELAND DEFENSE

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)

from the

NAVAL POSTGRADUATE SCHOOL
March 2022

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Strategically, it will always be preferable for the United States to fight "out there" where the conflict is far away from the homeland. But, as the Russian and Chinese navies continue to develop longer-range capabilities and other threats toward the U.S. homeland grow, it is crucial to examine how well the surface Navy is prepared to defend the homeland. Given both the emerging threats from peer competitors, such as Russia and China, and the surface Navy's prioritization of forces abroad, this thesis asks whether the surface Navy is adequately prepared to defend against such future threats to the American homeland.

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LIST OF ACRONYMS AND ABBREVIATIONS

A2/AD	anti-access/area denial
AAF	Army Air Force
ASM	anti-ship missile
ASuW	anti-surface warfare
ASW	anti-submarine warfare
C4ISR	Command, Control, Communication, Computer, Intelligence, Surveillance, and Reconnaissance
CCP	Chinese Communist Party
CINCPACFLT	Commander-in-Chief, U.S. Pacific Fleet
CNO	Chief of Naval Operations
CONUS	continental United States
CRBM	close-range ballistic missile
DOD	Department of Defense
FDNF	forward deployed naval forces
HGV	hypersonic glide vehicle
IRBM	intermediate-range ballistic missile
LACM	land-attack cruise missile
LRBM	long-range ballistic missile
NDS	National Defense Strategy
NORAD	North American Aerospace Defense Command
NORTHCOM	Northern Command
OPNAV	Office of the Chief of Naval Operations
PLA	People's Liberation Army
PLAN	People's Liberation Army Navy
PLARF	People's Liberation Army Rocket Force
PRC	People's Republic of China
SLBM	submarine-launched ballistic missile
USNORTHCOM	U.S. Northern Command
V-E	Victory-in-Europe
VLS	vertical launching system

WEZ	weapons engagement zone
WWII	World War II

I. INTRODUCTION

A. RESEARCH QUESTIONS

Strategically, it will always be preferable for the United States to fight "out there" where the conflict is farther away from the homeland. But as the Russian and Chinese navies continue to develop longer-range capabilities and other threats toward the U.S. homeland grow, it is crucial to examine how well the surface Navy is prepared to defend the homeland. Given both the emerging threats from peer competitors, such as Russia and China, and the surface Navy's prioritization of forces abroad, this thesis asks whether the surface Navy is adequately prepared to defend against such contingencies threatening the American homeland in the future?

This thesis also examines the following secondary questions: What are the Russian and Chinese maritime and missile capabilities that threaten the continental United States (CONUS)? What lessons can we learn from how maritime forces were prioritized and allocated in World War II (WWII)? With the current maritime force of the Navy and NORTHCOM's and NORAD's missions and responsibilities regarding homeland defense, how can the surface Navy balance prioritizing and allocating forces abroad and at home?

B. PROBLEM STATEMENT

Although being forward deployed is an important element, as Peter Swartz states, when deterring adversaries and maintaining situational awareness as the "first line" of defense, forward deployment does not replace the need to ensure that forces at home, or the "second line" of defense, are prepared for an attack on CONUS.[1] With Russian and Chinese ballistic and cruise missile ranges becoming more threatening to CONUS, one should assume that an attack on CONUS by a peer competitor, such as Russia and China, in times of crisis and conflict is possible. In future crisis or conflict, the United States cannot assume that the American homeland will remain a sanctuary and that critical

[1] Peter M. Swartz, *Forward–from the Start: The U.S. Navy & Homeland Defense : 1775–2003*, (Alexandria, VA: Center for Naval Analyses, 2003), 8, https://apps.dtic.mil/sti/pdfs/ADA596760.pdf.

infrastructure in CONUS will not be targeted by peer competitors. As former Commander of U.S. Northern Command (USNORTHCOM) Terrence O'Shaughnessy stated,

> The "away game" strategy that has dominated American military thinking since the end of the Cold War is no longer sufficient. Adversaries do not intend to allow the American military to fight the war it wants to and deploy unmolested into a theater of conflict. America must, therefore, be prepared to fight the war that is coming, a war that is fought across command boundaries and on both sides of the oceans.[2]

To determine how the current maritime forces should be allocated and prioritized to support homeland defense missions in CONUS, this thesis offers an assessment of why and how the Navy allocated and prioritized maritime forces in WWII, the last time it fought with great powers at sea. Additionally, an analysis is provided of U.S. Northern Command's (USNORTHCOM) and North American Aerospace Defense Command's (NORAD) missions and responsibilities in terms of defense of the homeland to identify how the surface Navy should allocate and prioritize its forces abroad and at home during crisis or conflict. This thesis concludes that in the near future, to defend against the increased maritime and missile capabilities of Russia and China, a binational maritime defense command should be established, possessing both clear lines of command and control and a strong unity of command between the armed forces to defending the homeland.

C. LITERATURE REVIEW

This literature review covers three critical questions related to the primary research question: What are the Russian and Chinese maritime and missile capabilities that threaten CONUS? How were maritime forces prioritized and allocated in World War II? With the current force structure, how should the Navy balance the prioritization and allocation of maritime forces abroad against those designated for homeland defense? Answers to these

[2] Terrence O'Shaughnessy and Peter Fesler, "Hardening the Shield: A Credible Deterrent and Capable Defense for North America," *The Canada Institute*, September 2020, 15, https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/Hardening%20the%20Shield_A%20Credible%20Deterrent%20%26%20Capable%20Defense%20for%20North%20America_EN.pdf.

three questions provide insight into answering whether the surface Navy is prepared for contingencies such as an attack on CONUS.

1. Are Russian and Chinese Maritime and Missile Capabilities a Significant Threat to CONUS?

The primary literature used in analyzing Russian and Chinese maritime and missile capabilities that threaten the homeland includes the following. First, by O'Shaughnessy and Fesler is, "Hardening the Shield: A Credible Deterrent and Capable Defense for North America." The two authors argue that the United States "is no longer a sanctuary" as a result of increased maritime and missile capabilities of adversaries and that the United States is required to adapt accordingly.[3] Second, is the report by the Defense Intelligence Ballistic Missile Analysis Committee, "2020 Ballistic and Cruise Missile Threat." The report provides a summary of ballistic and cruise missile capabilities from peer competitors, especially the Russians and Chinese.[4] Lastly, by Janes are the "Russian Federation – Executive Summary" and the "China – Executive Summary" reports. Both reports present a detailed analysis of Russian and Chinese maritime and missile capabilities and developments.[5] All authors indicate the significance of the Russian and Chinese threat to the homeland due to increased maritime and missile capabilities.

Throughout the 20th century and into the present, the Navy has focused on forward deployment. The Navy has always been focused on the "away game," with periodic attention given to the "home game," because the United States has benefited from the geographic luxury of having all significant conflicts occur across the Atlantic or Pacific. As said by Swartz, "Homeland harbor and coastal defense has seldom been a primary

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[3] O'Shaughnessy and Fesler, 2.

[4] Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat* (Wright-Patterson AFB: Defense Intelligence Ballistic Missile Analysis Committee, 2020), https://media.defense.gov/2021/Jan/11/2002563190/-1/-1/1/2020%20BALLISTIC%20AND%20CRUISE%20MISSILE%20THREAT_FINAL_2OCT_REDUCEDFILE.PDF.

[5] Janes, "Russian Federation - Executive Summary," *Jane's Sentinel Security Assessment - Russia And The CIS*, May 12, 2021, https://customer.janes.com; and Janes, "China - Executive Summary," *Jane's Sentinel Security Assessment - China And Northeast Asia*, May 5, 2021, https://customer.janes.com.

mission of the U.S. Navy, and has never been a preferred one."[6] It is understandable since the action has historically been "out there" vice "at home."

During much of the 20th century, the Navy leaned toward a more forward, offensive defense strategy, but experts argue that this mindset and traditional analytical process must shift. Former USNORTHCOM commander, Terrence O'Shaughnessy, and former Deputy Director of Operations for NORAD, Peter Fesler, believe that an attack on CONUS is almost inevitable in the 21st century.[7] O'Shaughnessy and Fesler state, "With innovations in long-range missiles and foreign missile defense systems as well as a changing Arctic landscape, threats to U.S. national security are closer and less deterred than ever from attacking the U.S. Homeland."[8]

Experts such as O'Shaughnessy and Fesler argue that the United States needs to break free from the "away game" strategic mentality that has dominated the American military's thinking process.[9] For the U.S. military to be prepared for contingencies such as an attack on CONUS, the military is required to assume that during the next conflict with an adversary, an attack on CONUS is likely to occur. O'Shaughnessy and Fesler believe U.S. adversaries in the 21st century will not allow the American military to continue to fight a war in historical away game fashion.[10] With the adversaries' ballistic and cruise missile capabilities to threaten CONUS, a flawed military strategy would be to rely solely on an "away game" approach. This understanding of the ever-growing threat capabilities of our peer competitors to threaten CONUS requires the incorporation of the surface Navy in not only forward deployed naval forces (FDNF) missions, but also coastal maritime surface warfare missions, coastal antisubmarine missions, and homeland missile defense missions.

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[6] Swartz, *Forward–from the Start*, 14.

[7] O'Shaughnessy and Fesler, "Hardening the Shield," 4.

[8] O'Shaughnessy and Fesler, 1.

[9] O'Shaughnessy and Fesler, 15.

[10] O'Shaughnessy and Fesler, 15.

Russian maritime and missile capabilities that threaten the American homeland are examined by the following. As stated by Janes' "Russian Federation – Executive Summary," the Russian Navy has developed increased capability to conduct extended deployments and operations in the Mediterranean through intermediate basing in Syria.[11] Janes also reports that the Russian Navy has modernized its surface maritime forces and increased its strike capabilities by integrating the Kalibr-class 3M14T, a land-attack cruise missile (LACM) with a max range of 4,000 km.[12] As stated by the Defense Intelligence Ballistic Missile Analysis Committee's "2020 Ballistic and Cruise Missile Threat," the Russian Navy also has submarine-launched ballistic missiles (SLBM), with max ranges from 5,500 km to 8,000 km.[13] It also reports that the Russians have ICBMs with max ranges from 5,500 km to 11,000 km.[14]

A number of works have examined Chinese maritime and missile capabilities that threaten CONUS. First and foremost, the People's Liberation Army (PLA) has restructured its military organization from a ground-centric military to a joint-centric military comparable to the United States. As stated in Janes' "China – Executive Summary," the People's Liberation Army Navy (PLAN) has demonstrated becoming a "blue water" navy through routine operations and extended deployments outside the second island chain.[15] According to O'Rourke's "China Naval Modernization," the PLAN's carrier force is expected to double from two to four carriers in their fleet in the near foreseeable future.[16] Janes states that the Chinese possess an SLBM with a max range of 7,500 km and have

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[11] Janes, "Russian Federation - Executive Summary," 41.

[12] Janes, 30

[13] Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 33.

[14] Defense Intelligence Ballistic Missile Analysis Committee, 26.

[15] Janes, "China - Executive Summary," 38.

[16] Ronald O'Rourke, *China Naval Modernization : Implications for U.S. Navy Capabilities–Background and Issues for Congress*, *China Naval Modernization : Implications for U.S. Navy Capabilities–Background and Issues for Congress*, [Library of Congress public edition]., CRS Report No. RL33153 (Washington, DC: Congressional Research Service, 2018), 19–20, https://crsreports.congress.gov/product/pdf/RL/RL33153/253.

another SLBM in development with an estimated max range of 12,000 km.[17] It also reports that China has ICBMs with a max range of 11,200 km.[18]

Lastly, as stated by VanHerck, if peer competitors can integrate their hypersonic and current missile capabilities, that would further complicate the maritime and missile defense problem for the homeland.[19]

2. How Were Maritime Forces Prioritized and Allocated in World War II?

Adam Siegel is a senior analyst at Northrop Grumman Analysis Center wrote *The Wartime Diversion of U.S. Navy Forces*. This report primarily focused on the Navy's involvement in homeland defense during WWII.[20] He revealed how the Navy consistently maintained a forward deployed posture throughout the war and prioritized power projection over coastal defense. Peter Swartz is an expert on Navy strategy, policy and operations who has 26 years of experience as a Navy officer, and who wrote *Forward-from the Start*. Swartz' narrative supported Siegel in delivering supplemental evidence regarding how the Navy traditionally prioritized fighting far away from shore and preferring the "away game."[21] Richard Brunies is a historian by trade who currently works at the National WWII Museum in New Orleans and who wrote "All Hands on Deck: German U-Boats." Brunies' work aided the collection of data regarding U.S. Navy involvement along the East Coast against the German U-Boat threat.[22] All of the writers indicated how the Navy, during WWII, prioritized and allocated maritime forces abroad rather than at home. This thesis

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[17] Janes, "China - Executive Summary," 76–77.

[18] Janes, 116.

[19] Glen VanHerck, "USNORTHCOM and NORAD Posture Statement," North American Aerospace Defense Command, accessed November 14, 2021, https://www.norad.mil/Newsroom/Article/2572565/usnorthcom-and-norad-posture-statement/.

[20] Adam B. Siegel, *The Wartime Diversion of U.S. Navy Forces in Response to Public Demands for Augmented Coastal Defense* (Alexandria, VA: Center for Naval Analyses, 1989), https://apps.dtic.mil/sti/pdfs/ADA598478.pdf.

[21] Swartz, *Forward–from the Start*.

[22] Richard Brunies, "All Hands on Deck: German U-Boats and the Civil-Military Defense of the Gulf, 1941–1943" (master's thesis, University of New Orleans, 2020), https://scholarworks.uno.edu/cgi/viewcontent.cgi?article=3952&context=td.

examines the Navy's prioritization and allocation of maritime forces during WWII as identified by Siegel, Swartz, and Brunies

This thesis analyzes how the Navy prioritized and allocated maritime forces during WWII to support coastal defense missions. It emphasizes the actions taken by the Navy regarding surface forces based on specific events and threats to the American homeland: Immediately following the attack on Pearl Harbor, the Japanese I-Boat submarine threat off the West Coast, the German U-Boat submarine threat off the East Coast, the Doolittle Raid, the Battle of Midway, and post-Midway through the end of the war. This research identified how the Navy prioritized and allocated maritime forces based on the actual threat of the homeland during the war. A couple examples that exhibit how senior U.S. Navy leaders prioritized and allocated maritime forces abroad rather than for homeland defense are as follows. First, as stated by Siegel, Chief of Naval Operations (CNO) Admiral Ernest King delayed naval forces in supporting coastal defense missions to prioritizing surface forces for the protection of trans-Atlantic convoys against the German U-Boat threat.[23] Second, even after the success of the Doolittle Raid and increased belief in a Japanese revenge attack on CONUS, as stated by Siegel, Commander-in-Chief, U.S. Pacific Fleet (CINCPACFLT) Admiral Chester Nimitz decided to prioritize and concentrate the U.S. fleet in preparation for the Battle of Midway.[24]

3. With the Current Maritime Force of the Navy, What Is the Balance between Forces Prioritized and Allocated for Operations Abroad and Homeland Defense?

General Glen VanHerck is the current Commander of NORTHCOM and NORAD and this thesis utilizes the "USNORTHCOM and NORAD Posture Statement" and other works to identify current missions and responsibilities of NORTHCOM and NORAD regarding homeland defense and to let Congress understand the significant threat to the American homeland from peer competitors.[25] VanHerck also states that U.S. "defensive

[23] Siegel, *The Wartime Diversion*, 22.

[24] Siegel, 24.

[25] VanHerck, "USNORTHCOM and NORAD Posture Statement."

capabilities have not kept pace with the threat," such as, increased maritime and missile capabilities of peer competitors that threaten the homeland.[26] VanHerck's statement indicates that more forces and resources are required to effectively conduct the homeland defense mission. Hope Seck has been writing and covering military issues since 2009 and she holds many accolades throughout her professional career as an investigative and enterprise reporter. She has written, "Active Ships in the U.S. Navy" that helps summarize the current maritime force of the Navy.[27] Her work is significant for this thesis as it questions if current U.S. naval forces are enough to conduct operations abroad and at home. Ronald O'Rourke has been a naval affairs analyst for the Congressional Research Service of the Library of Congress since 1984. He wrote *Homeland Security: Navy Operations* in 2004, but his threat analysis of ballistic and cruise missile threats to CONUS is still applicable today.[28] Although forward-deployed operations by the Navy are considered as the "first line of homeland defense," O'Rourke states that a Navy role in homeland defense against ballistic and cruise missile threats could be to incorporate Navy systems, such as, the Aegis air defense system, and have U.S. surface ships to intercept and destroy targets capable of launching cruise missiles that threaten the homeland.[29]

As Swartz states, the Navy's traditional and cultural approach is to be forward deployed and defeat its adversaries far away from the American homeland.[30] He also echoes that Navy leadership continued their approach to label forward naval operations as the nation's "first line of defense."[31] One of many reasons for the Navy's approach of not emphasizing homeland defense is that CONUS, throughout the last 100 years, has been a sanctuary or safe haven during times of crisis and conflict. The United States could afford

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[26] VanHerck.

[27] Hope Hodge Seck, "Active Ships in the U.S. Navy," Military.com, June 23, 2021, https://www.military.com/navy/us-navy-ships.html.

[28] Ronald O'Rourke, *Homeland Security: Navy Operations - Background and Issues for Congress*, CRS Report No. RS21230 (Washington, DC: Congressional Research Service, 2004), https://apps.dtic.mil/sti/pdfs/ADA472893.pdf.

[29] O'Rourke, 2–3.

[30] Swartz, *Forward–from the Start*, 8.

[31] Swartz, 8.

to prioritize and allocate maritime forces and concentrate the fleet forward and abroad due to the lack of a credible threat to the homeland. However, with increased maritime and missile capabilities of peer competitors, such as Russia and China, that mindset and strategy might not be viable in the next crisis or conflict involving the United States. O'Shaughnessy and Fesler argue that the transition from the belief that the United States is a sanctuary to the understanding that in future conflicts, critical infrastructure in CONUS will be targeted by peer competitors is critical in terms of homeland defense.[32] VanHerck provides points similar to O'Shaughnessy and Fesler by stating that peer competitors have begun to "circumvent our legacy warning and defensive systems and hold our homeland at risk."[33]

Commander Timothy Richardt has served in the U.S. Navy and wrote *The Security and Defense of America's Ports,* which recommends a national layered defense strategy that balances forces abroad and at home. He validates the Navy's approach for forward deployment while indicating a growing requirement of prioritizing forces to effectively accomplish the homeland defense mission. Richardt states that although the Department of Defense (DOD) "is globally focused toward a forward leaning, offensive layered defense of the nation with the intent of defeating enemies of the United States as far from the U.S. homeland as possible," it does not get rid of the duty to allocate and prioritize maritime forces closer to home in support of homeland defense.[34]

4. Conclusion of the Literature Review

The literature review has shown that naval experts and military leaders agree that the homeland is threatened. Improved maritime and missile capabilities of peer competitors have made it more credible that, during conflict, critical infrastructure in CONUS will be targeted. However, the literature does not provide much help to the surface Navy as it seeks to identify and develop solutions to counter the maritime and missile threat of peer

[32] O'Shaughnessy and Fesler, "Hardening the Shield," 2–6.

[33] VanHerck, "USNORTHCOM and NORAD Posture Statement."

[34] Timothy P. Richardt, *The Security and Defense of America's Ports: An Assessment of Coast Guard and Navy Roles, Capabilities and Synchronization* (Carlisle Barracks, PA: Army War College, 2006), 3, https://apps.dtic.mil/sti/pdfs/ADA448833.pdf.

competitors. This thesis seeks to help fill that gap, by addressing the following. First, to show that in the future, CONUS will be targeted by peer competitors during crisis or conflict. Second, the threat to the American homeland is significant and credible due to peer competitors' maritime and missile developments and capabilities. Third, the Navy has to get away from the traditional maritime strategy of primarily fighting abroad and begin to emphasize homeland defense properly. Fourth, the U.S. armed forces, specifically the Navy for the scope of this thesis, will have to balance appropriately on prioritization and allocation of forces abroad and at home. Lastly, this thesis recommends and addresses how a binational maritime defense command could assist to properly prioritize and allocate maritime forces to deal with increased maritime and missile capabilities of Russia and China.

D. POTENTIAL EXPLANATIONS AND HYPOTHESES

Based upon an analysis of the above literature, this research concludes that the surface Navy is not adequately prepared to defend against contingencies against the American homeland in the future from peer competitors. Although the majority of surface combatants are multi-mission capable that can conduct both forward deployed and homeland defense mission, it is difficult to state that the current surface Navy has enough ships to accomplish missions abroad and at home. Also, with recent maritime and missile developments and increasing capabilities on the part of peer competitors, and without an established maritime defense command at the binational level, it is difficult to say whether surface forces will be allocated appropriately in the future to provide an effective layered defense capability of the homeland.

The research conducted for this thesis recommends that a maritime defense command is necessary at the binational defense command level, and that it should be integrated with the already existing NORAD. The addition of a maritime defense element to NORAD and establishing a binational maritime and aerospace defense command whose primary mission is the defense of North America will allow the command to not only conduct aerospace warning, aerospace control, and maritime warning missions, but also conduct maritime control missions with control over air, land, and sea forces.

E. RESEARCH DESIGN

This thesis follows a systematic and chronological approach to answer whether the surface Navy is prepared for contingencies such as an attack on CONUS. First, the threats to CONUS today are identified with specific focus on the maritime and missile developments and capabilities of Russia and China. Second, the manner in which the Navy prioritized and allocated maritime forces to address coastal threats to CONUS during WWII is examined. Third, an analysis is undertaken of the current status of maritime forces capable of conducting offensive and defensive warfare capabilities and of NORTHCOM and NORAD missions and responsibilities regarding homeland defense. Fourth, a determination is made as to whether or not the current organizational structure and mission of the binational defense command is sufficient to effectively combat against increased maritime and missile capabilities of peer competitors. Lastly, this thesis offers recommendations that could help the surface Navy maximize preparedness for an attack on CONUS.

F. THESIS OVERVIEW AND CHAPTER OUTLINE

Chapter I introduces the primary question of whether the surface Navy is prepared to defend against an attack on CONUS. Chapter II analyzes current maritime and missile threats to CONUS. Chapter III provides a historical account of U.S. maritime homeland defense during WWII in a chronological format. Chapter IV provides a summary of the surface Navy and current NORTHCOM and NORAD missions and responsibilities regarding the defense of the homeland. Chapter V summarizes the findings from the previous chapters to answer the primary thesis question and recommends establishing a binational maritime and aerospace defense command.

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II. THE INCREASING THREAT FROM RUSSIAN AND CHINESE MARITIME AND MISSILE CAPABILITIES

The traditional U.S. strategy of fighting an "away game," which depends on the homeland being a sanctuary from enemy attack, is being challenged today by the rapid developments of maritime and missile capabilities by Russia and China. This chapter will examine these rising threats. First, it will review the United States' traditional and longstanding view that the American homeland is a safe haven during crisis or conflict. Next, it examines the advances in Russian and Chinese maritime and missile developments and capabilities, especially the recent developments of hypersonic weapons from peer competitors. Finally, it concludes that based on credible maritime and missile capabilities that threaten the homeland from peer competitors, such as Russia and China, the U.S. homeland will no longer be a sanctuary in future crisis or conflict.

The American homeland has become a strategic target within reach of our adversaries who envision that future conflicts will not be kept regional. These adversaries' plan in crisis or conflict is to employ horizontal escalation tactics. As stated by Morgan et al. horizontal escalation "refers to expanding the geographic scope of a conflict."[35] Russian and Chinese missile development programs have showcased their capabilities to target continental United States (CONUS) critical infrastructure using conventional weaponry. With Russian and Chinese political and military leaders stating their intentions to attack the American homeland during conflict, coupled with their current conventional capabilities, Russia and China have become a credible threat of challenging the traditional national strategy of the U.S. homeland serving as a safe haven during conflicts overseas while staying under the nuclear threshold.

[35] Forrest E. Morgan et al., *Dangerous Thresholds: Managing Escalation in the 21st Century* (Santa Monica, CA: Rand Corporation, 2008), 18, https://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG614.pdf.

A. LIKELIHOOD OF RUSSIA AND CHINA TO TARGET HOMELAND INFRASTRUCTURE THROUGH CONVENTIONAL WEAPONRY

General Terrance O'Shaughnessy and General Peter Fesler identifies the shift in the National Defense Strategy, noting that peer competitors such as Russia and China have developed the capability to target critical infrastructure in CONUS through conventional weaponry.[36]

> The brief respite from great power conflict in the late 20th and early 21st centuries is over, and the Homeland is no longer a sanctuary. The National Defense Strategy (NDS) concisely articulates a shift in the security environment, away from one dominated by the threat of violent extremism, toward one in which peer adversaries, possessing the capability to generate catastrophic effects globally, are the paramount concern for the United States. These adversaries have developed the capability and intend to hold critical sites in the United States and Canada at risk with conventional strikes. Recognizing this, the NDS specifically makes direct defense of the Homeland against a peer the number one priority for the Department of Defense. Canada's national defense policy articulated in "Strong, Secure, and Engaged" provides similar guidance.[37]

A paradigm shift is required regarding the American homeland as a sanctuary during times of conflict. The belief that CONUS is a secure base from which to launch conventional operations needs to shift to the belief that the homeland is and will be at risk of conventional weaponry during crisis or conflict with peer competitors. One can state that this paradigm shift is critical for the defense of the homeland. As stated in O'Shaughnessy and Fesler's "Hardening the Shield": "Adversaries will threaten the homeland through subversion and coercion and a range of systems, including long-range nuclear armed missiles, conventional precision strike systems, and systems designed to gain information advantage."[38] The American strategy of fighting strictly overseas is becoming outdated with the technological advances in peer competitors' conventional precision-strike capable missile platforms. These technologies and capabilities from peer

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[36] O'Shaughnessy and Fesler, "Hardening the Shield," 2.

[37] O'Shaughnessy and Fesler, 2.

[38] O'Shaughnessy and Fesler, 3.

competitors will likely be employed in the future to destroy critical infrastructure that directly affect the ability to mobilize the armed forces and defend the homeland.

The decline in the American strategy of fighting the "away game" is due to Beijing and the Kremlin desiring to not contain future conflicts with the United States at the regional level by pursuing horizontal escalation.[39] O'Shaughnessy and Fesler emphasize that our peer competitors such as Russia and China understand from history that "the traditional American way of war is the rapid deployment of overwhelming force to a fight overseas." [40] If they understand the basic blueprint for U.S. military success, then one can assume that during a future conflict, as stated by O'Shaughnessy and Fesler, that the "economic engine and carefully orchestrated multi-modal logistical movements" located in CONUS for rapid deployment of forces to a fight overseas will become a decisive point and target for adversaries in the future.[41] With the development of Russian long-range conventional strike capabilities, Russian military planners and strategists have the ability to target key infrastructure such as seaports and other major transportation installations in CONUS that provide the capability for rapid deployment of U.S. forces to foreign areas of conflict.

The pursuit of ballistic missile development around the world is not new or shocking. As stated in the Defense Intelligence Ballistic Missile Analysis Committee's *2020 Ballistic and Cruise Missile Threat*, Chinese scholars stated in 2010 that, "ballistic missiles have become an important factor that influences the world political setup, controls the battlefield posture, and even decides the outcome of war and it is appropriate to say that ballistic missiles have become an important sign of national defense strength and a symbol of national status."[42] However, the exponential growth of ballistic missile programs such as that of the People's Republic of China (PRC) are concerning to U.S. civil and military leaders. The proliferation of ballistic and cruise missile technology and capabilities further supports the

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[39] O'Shaughnessy and Fesler, 7.

[40] O'Shaughnessy and Fesler, 3.

[41] O'Shaughnessy and Fesler, 3.

[42] Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 10.

required paradigm shift that future crisis or conflict with peer competitors, such as Russia and China, will place CONUS at risk of threats below the nuclear threshold.

The Defense Intelligence Ballistic Missile Analysis Committee states that Figure 1 "depicts the approximate number of ballistic missiles launched per year from 2005 to 2018. In the graphic, ballistic missiles are categorized by range, regardless of launch platform; missiles with a range of 1,000 km or greater are classified as long-range ballistic missiles (LRBM) and missiles with a range from 300 km – 1,000 km are classified as short-range ballistic missiles (SRBM). This graphic does not include close-range ballistic missiles (CRBM), which are missiles with a range less than 300 km, or ballistic missiles launched in combat."[43]

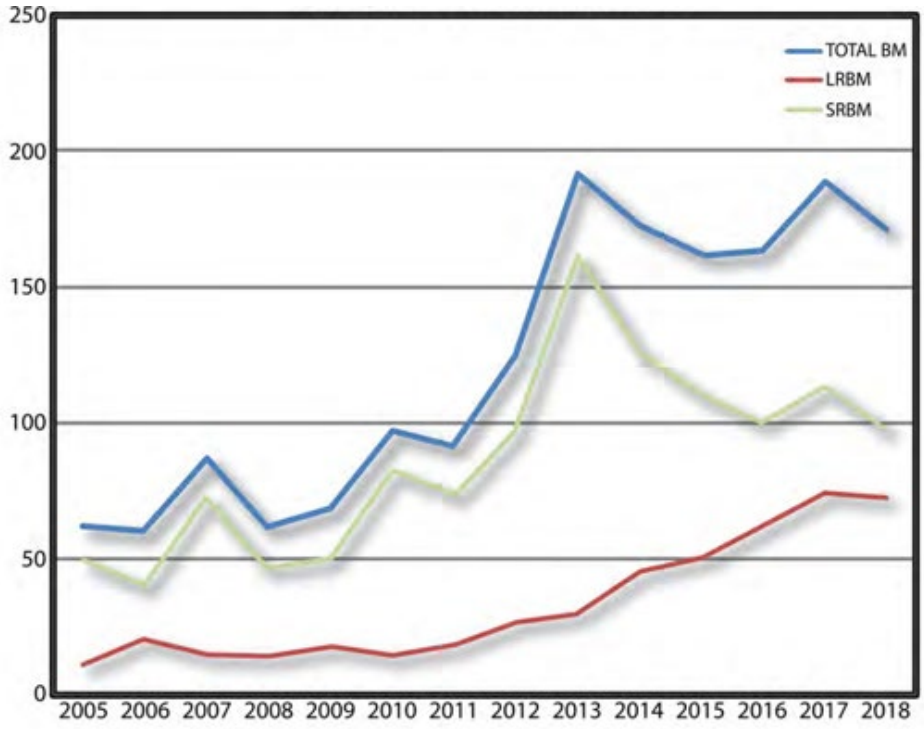

Figure 1. Ballistic Missile Launches Per Year 2005- 2018 (Excludes Combat Launches)[44]

[43] Defense Intelligence Ballistic Missile Analysis Committee, 10.

[44] Source: Defense Intelligence Ballistic Missile Analysis Committee, 10.

Russia and China currently have several types of ICBMs operational while continuing to modernize their ICBM forces. As stated in the *2020 Ballistic and Cruise Missile Threat*, Russia has eight different ICBMs with max ranges from 5,500 km to 11,000 km and China has two different ICBMs with max ranges from 7,000 km to 10,000 km.[45] Most major American cities, ports, and military bases are within range of Russian and Chinese ICBMs.

Russia has invested heavily in the capability to strike targets in CONUS with conventional weaponry. The Kremlin has recently dedicated resources to create long-range conventional strike capabilities through the deployment of maritime assets.[46] The development of long-range conventional strike capabilities coupled with the deployment of these missiles through maritime and air assets further demonstrates the significance of the threat of an attack on the homeland. According to O'Shaughnessy and Fesler, "Russian political and military leaders have repeatedly made it clear in public statements that they intend to attack targets in the United States in the event of a conflict elsewhere."[47] These public statements from Russian political and military leaders of intention to attack the United States in crisis and conflict allude to a Russian national strategy aligned with horizontal escalation. With the development of Russian long-range conventional strike capabilities, Russian military planners and strategists have the ability to target key infrastructure such as seaports and other major transportation installations in CONUS that provide the capability for rapid deployment of U.S. forces to foreign areas of conflict. O'Shaughnessy and Fesler affirms that the Russian strategy of targeting key infrastructure in CONUS is not an uncertain belief and that "the Kremlin has openly communicated its intent" to attack CONUS in a future conflict with the United States.[48]

Similar to Russia, China has invested a vast amount of resources on the capability to strike targets in CONUS with long-range conventional missiles. O'Shaughnessy and

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[45] Defense Intelligence Ballistic Missile Analysis Committee, 29–33.

[46] O'Shaughnessy and Fesler, "Hardening the Shield," 4.

[47] O'Shaughnessy and Fesler, 4.

[48] O'Shaughnessy and Fesler, 6.

Fesler states that "Over the past decade, the Chinese People's Liberation Army, or PLA, has fielded a wide array of new systems including solid fueled road mobile ICBMs, hypersonic glide vehicles, quieter submarines, and air refueling capability."[49] These developments indicate China's intentions to project power in the near future rather than only having a defensive approach with their military. In doing so, they are competing with the United States as a peer competitor. Although it is difficult to determine Beijing's intent with their development of long-range precision strike capabilities due to the opaque nature of the Chinese Communist Party (CCP), As stated in "Hardening the Shield," Chinese military leaders in the PLA have spoken of strategies "designed to deny access" to the Western Pacific theater "through attacks at range."[50] Their statements regarding strategy incorporating their long-range precision strike capabilities could translate to long-range conventional attacks on the homeland.

With the PLA's motivation to modernize their military, they are becoming a more capable and dangerous global power. The statement can be backed by how the PLA is restructuring from a ground-force centric military to a joint-force centric military similar to Russia and the US.[51] Also, the establishment of China's first overseas base in Djibouti in 2017 indicates their desire and intent to project power beyond their borders and firmly establish themselves as a regional hegemon in the Pacific.[52]

1. Russian Maritime and Missile Capabilities that Threaten the Homeland

The Russian Navy continues to develop capabilities to project power overseas. The successful development of the Kalibr-class conventional cruise missiles has given their navy strategic importance by being able to launch via sea, air, and land. The Kalibr-class 3M14T is a LACM with a max range of 4,000 km with the ability to be launched from

[49] O'Shaughnessy and Fesler, 3.

[50] O'Shaughnessy and Fesler, 4.

[51] Janes, "China - Executive Summary," 25.

[52] Janes, 21.

vertical launching system (VLS) cells onboard ships.[53] As stated by the Office of Naval Intelligence in *The Russian Navy*, the Kalibr-class conventional cruise missile capability "within the new Russian Navy is profoundly changing its ability to deter, threaten, or destroy adversary targets."[54]

The Russian power projection capability is evident with their operations in Syria in 2015. Since 2015, the Russian Navy has proven that they are capable of extended deployments after conducting successful deployments into the Mediterranean to support the Bashar al-Assad regime. The *Russian Federation - Executive Summary* by Janes states that the Russian Navy has shown that it "can undertake and sustain out-of-area operations indefinitely."[55] In "Russia Military Power" the Defense Intelligence Agency reports that "Russia has also sought to use the Syrian intervention as a showcase for its military modernization program and advanced conventional weapons systems."[56] Also, the Defense Intelligence Agency reports that Moscow has launched Kalibr-class cruise missiles from "naval units in the Caspian Sea and the Mediterranean Sea."[57]

The Russian Navy is organized into four fleets: the Northern Fleet, the Pacific Fleet, the Black Sea Fleet, and the Baltic Fleet. The Northern Fleet is the largest, and only the Northern and Pacific Fleets have nuclear-powered submarines. The Black Sea Fleet has become a formidable fleet after the Russians took over Crimea in 2014 and conducted deployments and operations in Syria in 2015. Janes states that in comparison, the Baltic Fleet lags behind the other three fleets in terms of upgrade and modernization.[58] Janes also notes that one significant reason for the Baltic Fleet lagging behind the other three fleets is

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53 Janes, "Russian Federation - Executive Summary," 30.

54 Office of Naval Intelligence, *The Russian Navy. A Historic Transition* (Washington, DC: Office of Naval Intelligence, 2015), 34, https://apps.dtic.mil/sti/pdfs/AD1011686.pdf.

55 Janes, "Russian Federation - Executive Summary," 41.

56 Defense Intelligence Agency, *Russia Military Power: Building a Military to Support Great Power Aspirations*, DIA-11-1704-161 (Washington, DC: Defense Intelligence Agency, 2017), 43, https://www.dia.mil/Military-Power-Publications/.

57 Defense Intelligence Agency, 44.

58 Janes, "Russian Federation - Executive Summary," 42.

due to the slow pace of modernization efforts by potential competitors in the region such as Poland and Sweden.[59]

As stated in Janes, after the takeover of the Tartus naval facility in Syria in 2015 by the Russian military, Moscow and Damascus signed an agreement in 2017 that allows up to 11 Russian ships to dock at any given time.[60] In December 2018, Putin formally signed into law a plan to expand the Tartus naval facility. In September 2019, the Russian government finished building a repair and maintenance facility at Tartus. According to the *Russian Federation – Executive Summary*, the agreement between Damascus and Moscow to allow 11 Russian ships in Tartus and the building of a repair and maintenance facility in Tartus signals Russia's intention to have "a long-term naval presence in Syria" and to utilize Tartus as "a fully fledged naval base where major warships can be refueled, rearmed, resupplied, serviced, and repaired if necessary."[61] Additionally, Russia now permanently deploys a naval task force in the Mediterranean Sea to support and defend its interests within the region.

The Russians have at least eight types of ICBMs with max ranges from 5,500 km to 11,000 km. The deployment of the ICBMs are from road-mobile and silo platforms with approximately 350 launchers in total.[62] The Russians have three types of SLBMs with max ranges from 5,500 km to 8,000 km.[63] Delta III, Delta IV, and Dolgorukiy class submarines are responsible for the deployment of SLBMs. As previously mentioned, the Kalibr-class 3M14T LACM has a max range of 4,000 km with multiple shipboard platforms capable of deploying the missile in the Russian Navy. The newest version of the Kalibr-class missile is the Kalibr-M. It is a hypersonic version with a max range of 4,500 km.[64] A shipboard and submarine launched version of the Kalibr-M is still in the developmental stage. Russian

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[59] Janes, 42.

[60] Janes, 43.

[61] Janes, 43.

[62] Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 26.

[63] Defense Intelligence Ballistic Missile Analysis Committee, 33.

[64] Janes, "Russian Federation - Executive Summary," 31.

ships and submarines operating in the mid-Atlantic can threaten the United States' East Coast with the 3M14T LACM while the West Coast will be threatened from ships and submarines operating in the vicinity of Hawaii.

The Russian Navy's capabilities of operating indefinitely in the Mediterranean are a concern regarding the defense of the homeland. If the Russians develop extended deployment capabilities in the mid-Atlantic and eastern Pacific regions and hold CONUS in their weapons engagement zone (WEZ) of not only their ICBMs, but LACMs and SLBMs, Russian forces could oversaturate the threat environment of the homeland for NORAD to effectively utilize legacy BMD systems. The Russian Navy currently has 14 replenishment tankers in service to conduct extended deployments and out-of-area operations.[65]

In *The Russian Navy*, former Commander-in-Chief, Russian Navy, Admiral Viktor Chirkov states that "The Russian Navy is being equipped with the newest; including precision long-range strike weapons … Naval forces today are capable of operating for a long time and with high combat readiness in operationally important areas of the global ocean."[66]

To further enhance Russian maritime and missile capabilities, the Russian government currently has two hypersonic weapons programs. As stated by Kelley Sayler, Russia has two hypersonic weapons programs; the two programs are the Avangard and the 3M22 Tsirkon programs.[67] Steve Trimble states that Avangard "is a hypersonic glide vehicle launched from an intercontinental ballistic missile, giving it effectively 'unlimited' range."[68] The Defense Intelligence Agency defines HGVs as "maneuverable vehicles that travel at hypersonic (typically greater than Mach 5) speed and spend most of their flight at

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65 Janes, 111.

66 Office of Naval Intelligence, *The Russian Navy*, iii.

67 Kelley Sayler, *Hypersonic Weapons: Background and Issues for Congress*, CRS Report No. R45811 (Washington, DC: Congressional Research Service, 2021), 12, https://crsreports.congress.gov/product/pdf/R/R45811.

68 Steve Trimble, "Aviation Week — January 14–27, 2019," Aviation Week | The Complete Archive, accessed November 30, 2021, https://archive.aviationweek.com/issue/20190114.

much lower altitudes than a typical ballistic missile."[69] Additionally, the Defense Intelligence Agency states that the "combination of high speed, maneuverability, and relatively low altitude" creates many challenges for U.S. and allied missile defense systems.[70]

The Office of Naval Intelligence expects Russia to continue to "develop its ASCM capabilities, pursuing faster more flexible missiles with longer-range and improved electronic and kinematic defense penetration features."[71] They also report that "Russian ASCM research is expected to focus on achieving hypersonic speeds … and will present continuing challenges to U.S. and allied naval forces."[72] Sayler notes that Russia is developing 3M22 Tsirkon, which is "a ship-launched hypersonic cruise missile capable of traveling at speeds of between Mach 6 and Mach 8."[73] He states that the Tsirkon has a "range of between approximately 250 and 600 miles" and has been deployed off multiple Russian cruisers, corvettes, and frigates.[74] In "Russia's Nuclear Weapons," Amy Woolf states that Putin claimed that the Tsirkon is a "hypersonic missile that can reach speeds of approximately Mach 9 and strike a target more than 1,000 km away."[75] Lastly, according to Amanda Macias, U.S. intelligence noted that the Tsirkon will join the Kremlin's arsenal by 2023.[76]

If in the near future, the Russian Navy is able to develop extended deployment capabilities in the Atlantic and Eastern Pacific and couple that with current ICBMs, SLBMs, and LACM capabilities, the combination could result in potentially oversaturating

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69 Defense Intelligence Agency, *Russia Military Power*, 48.

70 Defense Intelligence Agency, 48.

71 Office of Naval Intelligence, *The Russian Navy*, 36.

72 Office of Naval Intelligence, 36.

73 Sayler, *Hypersonic Weapons*, 13.

74 Sayler, 13.

75 Amy Woolf, *Russia's Nuclear Weapons: Doctrine, Forces, and Modernization*, CRS Report No. R45861 (Washington, DC: Congressional Research Service, 2021), 26, https://crsreports.congress.gov/product/pdf/R/R45861.

76 Amanda Macias, "Russia Again Successfully Tests Ship-Based Hypersonic Missile — Which Will Likely Be Ready for Combat by 2022," CNBC, December 20, 2018, https://www.cnbc.com/2018/12/20/russia-tests-hypersonic-missile-that-could-be-ready-for-war-by-2022.html.

and overwhelming the threat environment of CONUS. During an attack of the homeland, NORAD would be responsible and required to not only defend against ground deployed ICBMs but also submarine deployed SLBMs and shipboard deployed LACMs with max ranges from 4,000 km to 11,000 km. Furthermore, if the Russians can integrate the Hypersonic weapon developments with current missile capabilities, it would further complicate the maritime and missile defense problem for the homeland.

2. Chinese Maritime and Missile Capabilities that Threaten the Homeland

As previously mentioned, the PLA has restructured their military organization from a ground-centric military to a more joint-centric military like Western militaries. In pursuit of becoming a "blue water" navy, the People's Liberation Army Navy (PLAN) ships have routinely been operating around the Indian Ocean and deploying worldwide as far as Alaska, Australia, and Hawaii. These deployments demonstrate China's ability to sustain extended deployments and conduct operations outside the second island chain.[77] As stated in the *China – Executive Summary*, the PLAN "has steadily augmented its naval air defense, anti-surface warfare (ASuW), and anti-submarine warfare (ASW) capabilities."[78] Similar to the Russian Navy, the PLAN continue to develop capabilities to project power overseas. Along with the People's Liberation Army Rocket Force (PLARF), the PLAN has the JL-2 that can "theoretically reach the entire world as it will be launched from the Type 094 submarine."[79]

The PLAN is made up of three fleets: the North Sea Fleet, the East Sea Fleet, and the South Sea Fleet. The North Sea Fleet's primary focus is on the Yellow Sea, the Korean Peninsula, and the Sea of Japan. The East Sea Fleet's primary responsibilities lie in the East China Sea and would lead operations directed at Taiwan. The South Sea Fleet focuses on the island of Hainan and the South China Sea.[80]

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[77] Janes, "China - Executive Summary," 38.

[78] Janes, 38.

[79] Janes, 16.

[80] Janes, 39.

To help support the PLAN's growing naval force and enable the ability for the PLAN to conduct extended deployments and out-of-area operations, the Chinese Navy built and launched new replenishment ships. As stated in the *China – Executive Summary*, "In 2012 a slightly larger variant of the Fuchi-class was launched and nine of these Type 903A vessels entered service between 2013 and 2019."[81] The addition of these replenishment ships is aligned with the PLAN's desire to becoming a formidable naval force when stacked against the U.S.

The PLAN's carrier force is expected to double in the foreseeable future from two to four aircraft carriers in service. The Type 001 aircraft carrier, Liaoning, and Type 002 aircraft carrier, Shandong, are currently in service. As stated by O'Rourke, "China's third carrier, the Type 003, is under construction; ONI expects it to enter service by 2024 … China's fourth carrier reportedly may begin construction as early as 2021."[82]

With the PLAN's carrier force continuing to grow with two more carriers in the shipbuilding production pipeline, the PLAN is producing replenishment ships tailored towards the objective of power projection. The first Type 901 replenishment ship, the Hulun Hu, entered service in 2017 and the second Type 901 replenishment ship, Chagan Hu, entered service in 2019. As stated in the *China – Executive Summary*, the Type 901 replenishment ships are an important addition to the PLAN naval force because they have the ability to "refuel a carrier from the port side while simultaneously refueling one of the escorts on the starboard side."[83] Currently the PLAN has 10 replenishment ships in service.[84] The recent trend of the PLAN of servicing replenishment ships from 2013 to 2019 indicates that they will continue to expand the number of replenishment ships to max their desire to project power overseas and conduct blue water operations past the Second Island Chain.

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[81] Janes, 67.

[82] O'Rourke, *China Naval Modernization*, 19.

[83] Janes, "China - Executive Summary," 67.

[84] Janes, 85.

The JL-2 missile is a SLBM with a max range of 7,500 km and deployed by the Type 094 SSBN. The Type 094 SSBN are capable of carrying 12 JL-2s at a time.[85] This capability of the PLAN Type 094 submarine is a current threat to the American homeland. If Chinese SSBNs are able to operate in waters outside the second island chain, CONUS will be in the WEZ of the JL-2. As stated in the *China – Executive Summary*, "a longer-range SLBM is thought to be under development."[86] In the *China – Executive Summary*, it also states that the JL-3 SLBM "could have a range of 11–12,000 km."[87] The expected in-service date of the JL-3 is the mid-2020s. If U.S. intelligence is proven to be correct, CONUS will be in the WEZ even if Chinese SSBNs capable of deploying the JL-3 operate within the First Island Chain.

With rapid development of the PRC's Command, Control, Communication, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) networks, the PRC is able to utilize their large inventory of anti-ship missiles (ASM) to follow the PRC's anti-access/area denial (A2/AD) defense strategy within the First Island Chain. The threat of a capable PRC military to implement an A2/AD strategy raises concerns for U.S. forces that routinely operate within the First Island Chain. If U.S. FDNF are unable to operate effectively and disrupt the PRC, this could lead to negative second and third order effects for the defense of the homeland, because our FDNF are essentially the first line of defense of the homeland.

According to the *China – Executive Summary*, the YJ-62 ASM is a subsonic missile with a max range of 280 km deployed by the Type 052C class destroyers.[88] The YJ-18 ASM is a missile with a Mach 3 supersonic terminal phase and has a max range of 530 km and deployable from the Type 052D destroyers, the Type 055 destroyers, the Type 093 submarines, and Type 039 submarines.[89] Also, as stated in the *China – Executive Summary*, the PRC has an intermediate range ballistic missile (IRBM), the DF-26, that

[85] Janes, 76.

[86] Janes, 77.

[87] Janes, 77.

[88] Janes, 77.

[89] Janes, 77.

entered service in April 2018 and is capable of targeting land and surface targets with a range of 4,000 km.[90] The DF-26 is a credible threat against CONUS and surface forces. As stated by O'Rourke, "Admiral Philip Davidson, the commander of U.S. Indo-Pacific Command, confirmed for the first time from the U.S. government side, that China's People's Liberation Army has successful tested an anti-ship ballistic missile against a moving ship."[91] To move on from the A2/AD maritime defense strategy of the PRC, China's ICBM, the DF-31AG, has a max range of 11,200 km. As presented in the *China – Executive Summary*, the DF-31AG missile can reach the United States.[92]

China's active and diverse missile development programs are complicating U.S. ballistic missile defense systems. Similar to the Russians, China is developing HGVs. However, China is developing HGVs for not only ballistic missiles but also for their ASMs. The *China – Executive Summary* General O'Shaughnessy stated that:

> The key advantages of a boosted hypersonic maneuvering vehicle are that it can radically change its trajectory to avoid missile defenses and have "gliding" capabilities that give an extended range over that of a conventional ballistic missile warhead. HGVs can more easily evade enemy defenses thanks to their incredible speed and low-altitude flight profile.[93]

To showcase the development and current threat of the PRC's HGVs, the PRC displayed its DF-17 hypersonic variant, the DF-ZF HGV, as part of its National Day Parade in October 2019 with a range of 1,800 km to 2,500 km.[94] There are speculations that a ASM variant of the DF-ZF HGV is under development. As stated by Sayler, "China has also tested the D-41 intercontinental ballistic missile, which could be modified to carry a conventional or nuclear HGV."[95] The Missile Defense Project states that the DF-41 ICBM

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[90] Janes, 77.

[91] O'Rourke, *China Naval Modernization*, 13.

[92] Janes, "China - Executive Summary," 114–116.

[93] Janes, 125.

[94] Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 22.

[95] Sayler, *Hypersonic Weapons*, 15.

has a range of 12,000 km.[96] With rapid development of next-generation missiles utilizing HGV technology, China has become a very formidable peer competitor, not only in the air domain, but more importantly, in the maritime domain. Possessing both highly capable missiles with rapidly growing C4ISR systems and the ability to conduct extended deployments and out-of-area operations outside the Second Island Chain, the PRC has become a major player and threat to U.S. naval forces in the Pacific theater and a threat to the defense of the homeland.

As mentioned in *Hypersonic Weapons* the United States pursued developments of hypersonic weapons in the early 2000s.[97] With the rises of Russian and Chinese hypersonic developments, the United States has been focused on the development of HGVs with the belief, as stated by former Vice Chairman of the Joint Chiefs of Staff, that these weapons could enable "responsive, long-range, strike options against distant, defended, and/or time-critical threats."[98] Sayler states that due to critics believing that hypersonic weapons "lack defined mission requirements, contribute little to U.S. military capability," funding was restrained in the past.[99] However, with the advances in hypersonic technologies by Russia and China, U.S. political and military leaders have become more invested in the development and deployment of hypersonic weapons. Sayler states that growing interest in hypersonic technology developments and added funding from the United States is attributed to Russian and Chinese hypersonic development programs and possession of likely fielded operational HGVs.[100]

B. CONCLUSION

The major takeaways from the chapter are as follows. The United States is not and will not be a sanctuary in crisis or conflict with the peer competitors. Russian and Chinese

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96 Missile Threat, "DF-41 (Dong Feng-41 / CSS-X-20)," Missile Threat, July 31, 2021, https://missilethreat.csis.org/missile/df-41/.

97 Sayler, *Hypersonic Weapons*, 1.

98 Sayler, 1.

99 Sayler, 1.

100 Sayler, 1.

maritime and missile developments and capabilities have established a credible threat towards the American homeland. More importantly, understanding the paradigm shift of the United States being targeted by adversaries in the future is the first step in identifying issues and problems regarding homeland defense and to ultimately sort out and resolve them.

As O'Shaughnessy and Fesler states, "In the words of General George Washington, 'To be prepared for war is one of the most effectual means of preserving peace,' and in this case preparedness comes in the form of the ability to defend the Homeland as part of a balanced strategy."[101] It is important to understand the paradigm shift that CONUS is not and will not be a sanctuary in future conflicts with peer competitors and that the United States might be required to place more emphasis on their ability to defend the homeland, as opposed to focusing on only offensively deterring adversaries abroad. With Russian and Chinese advances in maritime and missile developments and capabilities, it is of vital importance more than ever to recognize that defending the homeland will be a difficult mission. By understanding that the United States will be under threat of peer competitors during crisis or conflict, one can begin to identify and develop solutions to counter future conventional threats to the homeland and build a balanced strategy of offensive and defensive measures to establish a stronger deterrent posture.

[101] O'Shaughnessy and Fesler, "Hardening the Shield," 8.

III. ANALYSIS OF MARITIME FORCE ALLOCATIONS DURING WWII IN SUPPORT OF COASTAL DEFENSE

Historically, the Navy has always been a forward leaning force, embracing the paradigm that the U.S. homeland remained a sanctuary. This chapter provides an overview and analysis of maritime force allocations and priorities during WWII for coastal defense when addressed with applicable threats and events that influenced homeland defense. The applicable threats and events relevant to homeland defense are the following: the attack on Pearl Harbor, the Japanese I-Boat submarine threat, the German U-Boat submarine threat, the Doolittle Raid, and the Battle of Midway. For the purpose of this thesis, these events reflect significant decision points by the Navy to prioritize forwarding leaning posture versus coastal homeland defense. In terms of homeland defense from foreign powers, the Department of War played a more significant role when compared to the Department of the Navy. Overall, the Navy consistently maintained its forward deployed posture throughout the war and prioritized power projection over coastal defense even when the American homeland was in a state of panic, believing that an enemy attack on CONUS was imminent.

A. THE DEPARTMENT OF WAR'S ROLE IN HOMELAND DEFENSE DURING WWII

Almost immediately after the attack on Pearl Harbor on December 7, 1941, the reinforcement of the United States' West Coast defenses, as stated by Siegel, became "one of the greatest priorities in the Department of War."[102] Siegel states that the 218th Field Artillery was ordered to halt their transit to the Philippines and to quickly reinforce coastal defenses along the West Coast.[103] He also notes that along with the 218th Field Artillery, 21,000 troops from the 41st Division were "thinly scattered along the Washington coast from the Canadian border to the Columbia River and beyond in anticipation of an

[102] Siegel, *The Wartime Diversion*, 17.

[103] Siegel, 17.

invasion."[104] This rapid movement of forces to the West Coast also included Marines guarding Southern California.[105]

In addition, immediately after the attack on Pearl Harbor, countering the Japanese I-Boat submarine threat off the West Coast became mainly an Army function. Coastal artillery and providing harbor minefield defenses during WWII were primarily Army responsibilities.[106] Similarly on the East Coast, a significant portion of the effort to counter the German U-Boat submarine threat was conducted by Army Air Force (AAF) air patrols.[107] As William Goss states, after the successful Doolittle Raid on April 18, 1942, "James M. Landis, director of the Office of Civilian Defense, began the campaign to prepare the country for a revenge bombing," by the Japanese.[108] Siegel notes that shortly after Landis' recognition of the possibility of a Japanese revenge attack, in June, "a rushed reinforcement of the Western Defense Command's air fleet occurred: the 97th Bombardment Group moved from New England to west coast air ports and the Eighth Air Force's movement to the United Kingdom was temporarily put on hold."[109]

B. THE DEPARTMENT OF THE NAVY'S ROLE IN HOMELAND DEFENSE DURING WWII

Although the Army and Air Force played a more impactful role than the Navy regarding coastal defense, a detailed analysis of the Army's and Air Force's role in coastal defense of the American homeland is outside the scope of this thesis. This analysis of maritime force allocations during WWII comprises the following events and threats: The immediate events following the attack on Pearl Harbor, the Japanese I-Boat submarine threat on the West Coast, the German U-Boat submarine threat on the East Coast, the Doolittle Raid, the Battle of Midway, and the shift in focus by U.S. political and military

104 Siegel, 17.

105 Swartz, *Forward–from the Start*, 9.

106 Swartz, 9.

107 Brunies, "All Hands on Deck," 6.

108 William Goss, "Air Defense of the Western Hemisphere," *The Army Air Forces in World War II* 1 (1948), 298.

109 Siegel, *The Wartime Diversion*, 24.

leaders from a national defensive posture to an aggressive offensive posture post-Midway. It is important to highlight that prior to WWII, as stated by Swartz, the Navy continued to plan for "forward battle fleet operations" and that all aspects of the Navy were optimized for "distant operations."[110] Swartz also states that Navy leadership continued their approach of labeling their forward and overseas operations as the nation's "first line of defense."[111] One can argue that due to the Navy's firm stance on fighting overseas and willingness to project power, the Navy did not prioritize costal defense of the homeland. As stated by Swartz, "the U.S. Navy's vision stayed forward, focused first on the need to carry the war across the Pacific to the Japanese and, second to assist in fighting Germans and Italians across the Atlantic and in the Mediterranean."[112]

1. Immediately After the Attack on Pearl Harbor

The Japanese air raid on December 7, 1941, was devastating for the nation. The illusion that the United States was a sanctuary even through global conflict was challenged and shattered. As stated by Childs, "This struck our deepest pride. It tore at the myth of our invulnerability."[113] With the understanding that CONUS might be threatened by enemy attacks, the U.S. coast was considered to be at risk. The coastal waters in the east were threatened by German U-Boat submarines, while those in the west were at risk from Japanese I-Boat submarines. On December 9, 1941, the Office of the Chief of Naval Operations (OPNAV) believed that follow on Japanese air raids were imminent.[114] But, even though OPNAV believed that operating near Hawaii was dangerous, and that the homeland was under threat of Japanese and German submarines, maritime force prioritization and allocation were focused abroad and not on coastal defense. Despite all these threats to the homeland, the Navy continued to concentrate on the away game.

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110 Swartz, *Forward–from the Start*, 7.

111 Swartz, 8.

112 Swartz, 9.

113 Marquis W. Childs, *I Write from Washington* (New York: Harper & Brothers, 1942), 241.

114 Siegel, *The Wartime Diversion*, 16–17.

With a crumbling national defense strategy that previously included Hawaii providing a barrier to any threat to the West Coast, after the attack on Pearl Harbor, the nation was in a state of emergency. As discussed earlier, in the early months of the war, emphasis on securing the West Coast from follow on Japanese attacks was one of the greatest priorities in the Department of War following the attack on Pearl Harbor.[115] However, it was not a major priority for the Department of the Navy. The coastal defense of the West Coast fell to the responsibility of the Army and Air Force rather than the Navy. West Coast air defense reinforcements came rapidly. As stated by Siegel, "By 17 December, nine additional antiaircraft regiments had arrived on the west coast."[116] After the Pearl Harbor attack, the Navy emphasized power projection rather than coastal defense of the West Coast by deployment of the U.S. carrier, USS Enterprise, and at least three destroyer divisions to the mid-Pacific.

2. Japanese I-Boat Submarine Threat on the West Coast

Prior to the attack on Pearl Harbor, the Japanese Navy were prepared for follow on attacks in Hawaii and the American West Coast. As stated by Siegel, "On 5 November, the Japanese Navy had directed its 'Sixth Submarine Fleet', which included only first-class submarines, to make reconnaissance of the American Fleet in Hawaii and west coast area, and, by surprise attacks on shipping, destroy lines of communication."[117] The Japanese deployed several submarines to the central-Pacific. As stated by Young, "Twelve I-type submarines of the Imperial Japanese Navy's 1st Submarine Squadron had taken up position in Hawaiian waters by the evening of December 6, 1941, anticipating an attack on U.S. Pacific Fleet ships if they broke out of Pearl Harbor the next day."[118] Unfortunately for the United States, the Pearl Harbor air raid was so successful that no U.S. ship was spotted at sea for the next two days.

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115 Goss, "Air Defense of the Western Hemisphere," 272.

116 Siegel, *The Wartime Diversion*, 17.

117 Siegel, 18.

118 Donald J. Young, "Japanese Submarines Prowl the U.S. Pacific Coastline in 1941," *World War II Magazine*, July 1998, https://www.historynet.com/japanese-submarines-prowl-the-us-pacific-coastline-in-1941.htm.

U.S. lines of communication were in danger without protection from the Navy and the first sign of this danger was when the SS Cynthia Olson, a lumber freighter, was sunk by the I-26 submarine 1,000 miles northeast of Hawaii.[119] The I-Boat attacks were only beginning. Nine Japanese submarines were tasked to sink merchant ships and shell coastal cities along the West Coast. As stated by Siegel, "Between 18 and 24 December, these submarines attacked nine ships between Hawaii and the coast, sinking two of them."[120] This Japanese operation was significant because it was the first and only time during WWII that more than one I-Boat appeared at the same time off the West Coast.[121] As stated by Young, the Japanese submarine force laydown was as follows, One submarine off Los Angeles Harbor, one off San Francisco Bay, one off the mouth of the Columbia River, and one off the Strait of Juan de Fuca, one off Cape Blanco, one off Cape Mendocino, one off Monterey Bay, one off Estero Bay, and one off San Diego.[122] Table 1 lists I-Boat operations off the West Coast from December 1941 through October 1942 while Figure 2 illustrates I-Boat operations from the same time period.

Luckily for the U.S., Japanese submarine doctrine placed low emphasis on attacking merchant shipping. Japanese submarines were designed to be used to cripple enemy surface vessels such as destroyers, cruisers, battleships, and aircraft carriers. As stated by General Headquarters, U.S. Army Far East Command when describing Japanese submarine doctrine, "disruption of enemy commerce on the key sea routes by submarine warfare … was to be conducted only in such a manner as not to interfere with the objectives of the main operations."[123]

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[119] Siegel, *The Wartime Diversion*, 18.

[120] Siegel, 18.

[121] Young, "Japanese Submarines Prowl the U.S. Pacific Coastline in 1941."

[122] Young.

[123] General Headquarters, Army Forces Far East, Military History Section, Japanese Research Division, "Submarine Operations December 1941-April 1942," *The Japanese Monographs* 102 (February 1952), 7.

Table 1. Japanese Submarine Operations Off the Pacific Coast, December 1941 through October 1942[124]

7 Dec 1941	I-26 sinks *Cynthia Olson* (AT), 33-42N, 145-29W
18 December	*Samoa* shelled by submarine, 41-09N, 124-37W
20 December	I-23 shells *Agwiworld*, 36-50N, 122-20W
21 December	I-17 sinks *Emidio* (AO), 40-30N, 124-35W
23 December	I-21 sinks *Montebello* (AO), 35-40N, 121-20W
23 December	*H.M. Storey* attacked by torpedo, 34-35N, 120-42W
23 December	*Larry Doheny* damaged by torpedo, shells 6 mi. off Estero Bay, CA
24 December	I-19 torpedoes, damages *Absaroka*, 33-45N, 118-33W
23 Feb 1942	I-17 shells Oil Refinery in Goleta, California
7 June	I-26 sinks *Coast Trader* (AK), 48-14N, 125-55W
19 June	I-25 torpedoes, damages *Fort Camosum* , 47-14N, 125-20W
20 June	I-26 shells Point Estevan, Vancouver Island
21 June	I-25 shells Fort Stevens, Oregon
23 June	*Camden* damaged by torpedo, 43-30N, 125-18W
9 September	I-25 Floatplane dropped incendiary bombs near Brookings, Oregon
29 September	I-25 Floatplane dropped incendiary bombs near Brookings, Oregon
4 October	I-25 sinks *Camden* (AO), 43-45N, 125-55W
6 October	I-25 sinks *Larry Doheny* (AO), 41-40N, 125-03W
10 October	I-25 sinks Soviet submarine L-16, 800 miles off the Washington Coast

[124] Source: Bert Webber, *Retaliation: Japanese Attacks and Allied Countermeasures on the Pacific Coast in World War II*, vol. 6 (Corvallis, OR: Oregon State University Press, 1975), vi.

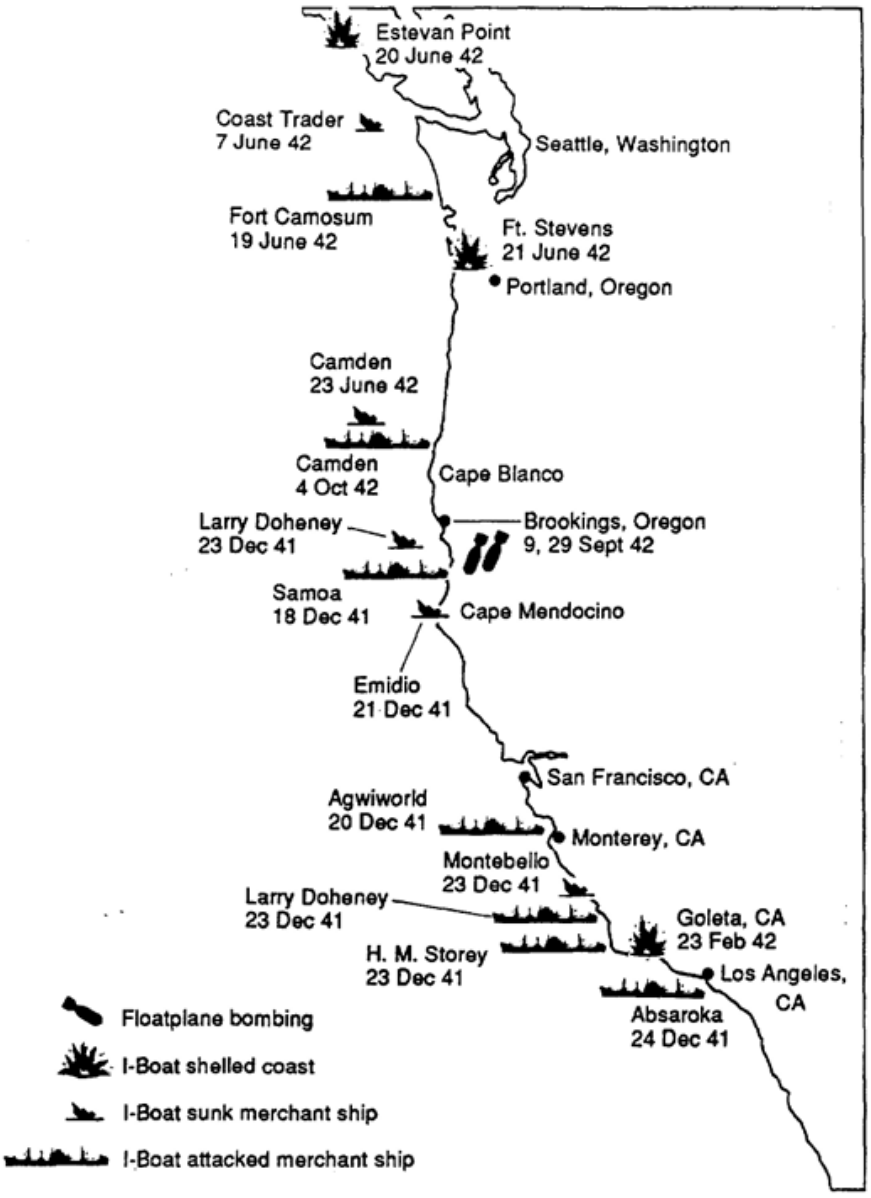

Figure 2. Japanese Submarine Operations Off the Pacific Coast, December 1941 through October 1942[125]

[125] Source: Webber, vi.

Ultimately, with the naval destroyer divisions performing escort duties for merchant vessels along the Pacific combined with increased antisubmarine patrols conducted by the AAF and coastal defense reinforced by Army artillery, the Japanese submarine threat off the West Coast slowly diminished. As stated by Webber, "in the later part of December the antisubmarine measures taken by the United States became very severe and the Japanese Submarine Force Detachment … was ordered by the Combined Fleet Headquarters to abandon the plan" and maintain a more defensive posture in the eastern Pacific.[126]

3. German U-Boat Submarine Threat on the East Coast

Unlike on the West Coast where the U.S. response was immediate in response to a direct threat after the attack on Pearl Harbor, the U.S. response in the East Coast was more calculated and deliberate. The western coastlines had an immediate threat of Japanese I-Boat submarines after the attack on Pearl Harbor. The East Coast had time to prepare against German U-Boat submarines since Operation Paukenschlag did not start until January 12, 1942. As stated by Siegel, Operation Paukenschlag was "the German U-boat offensive off the U.S. east coast," with the initial wave of submarines totaling five.[127] The operation began with the sinking of the British steamer, Cyclops, 300 miles off Cape Cod, Massachusetts.

Even with Allied merchant shipping being sunk at rapid levels by German U-Boats, the Navy was reluctant to provide forces in support of coastal defense. Similar to the emphasis of naval ships maintaining forward presence in Pacific waters, Chief of Naval Operations (CNO) Admiral Ernest King delayed providing naval forces in support of coastal defense and prioritized surface forces for the protection of coastal convoys early on in the war to maximize the safety of sea lines of communication in the contested waters of the eastern Atlantic and Mediterranean. According to Siegel, "Adm. Ernest King even refused a British offer to augment U.S. forces with 24 Royal Navy trawlers in order to implement a convoy system along the east coast, since that in itself would weaken the

[126] Webber, 14–15.

[127] Siegel, *The Wartime Diversion*, 22.

defense of the trans-Atlantic convoys."[128] This act by the CNO further emphasized the Navy's focus of power projection through fighting overseas and being forward deployed.

As stated by Brunies, along the East Coast, "The primary means of coastal defense patrols … were air patrols, surface patrols, and striking groups all of which utilized the anti-submarine warfare tactics issued in the Atlantic Fleet's bulletins."[129] To assist air and surface patrols in anti-submarine warfare, the Navy established its Coastal Observer System. Brunies also states, "By the end of the summer of 1942, the Coastal Observer System was fully operational" and although voluntary, it asked specific citizens who knew the eastern coastlines to join.[130] The Coastal Observers followed a four-page document and the Navy found promising results in identifying German U-Boat activity along the coast.[131]

By May 1942, AAF and Army coastal defense measures ramped up to support antisubmarine warfare missions, endangering German U-Boats that were operating closer to the East Coast. As stated by Siegel, "By August 1942, after millions of tons of shipping and only six U-boats sunk, the gaps in defense off the U.S. coast were closed and the U-boats would find hunting in these waters much more dangerous for the remainder of the war."[132] With the AAF conducting offensive aerial patrols, the AAF made submarine operations more difficult for German U-Boats to surface and attack U.S. lines of communications without the threat of being targeted and attacked by AAF antisubmarine aircraft. As stated by Warnock, targeting surfaced submarines with AAF aircraft went as follows:

> Once a target was spotted visually or by radar, the pilot achieved surprise by flying in clouds, with the sun behind the aircraft. Attacking at an angle of 15 to 45 degrees increased the chances of a hit or near-miss. The pilot would fly as low as possible, preferably about fifty feet above the water, and would ideally drop the depth bomb within twenty feet of the

[128] Siegel, 22.

[129] Brunies, "All Hands on Deck," 6.

[130] Brunies, 13.

[131] Brunies, 13.

[132] Siegel, *The Wartime Diversion*, 23.

> submarine's pressure hull. The aircrew dropped depth bombs in clusters of six spaces, to fall at fifty- to seventy-foot intervals. As the aircraft passed over, the crew would also fire their machine guns in an effort to damage the submarine and suppress antiaircraft fire.[133]

Unlike the West Coast, the responsibility for countering the German U-Boat threat eventually transitioned from the AAF to the Navy. With AAF antisubmarine aircraft being operationally controlled by the Navy, the Navy began to conduct offensive Atlantic Fleet hunter-killer operations in the mid- and eastern Atlantic from 1943 through the end of the war. As stated by Swartz, successful execution of these offensive ASW mission in the Atlantic were attributed to the "intelligence fusion efforts of Admiral Ernest King's Tenth Fleet."[134] A major turning point in the Battle of the Atlantic came in May 26, 1943, when virtually all German U-Boats withdrew from the North Atlantic. The order to withdraw German U-Boats in the North Atlantic came after 16 U-Boats were destroyed between April 25 and May 20. As stated by Warnock, "Almost 1,700 Allied ships crossed the ocean in June and July 1943 without any losses."[135] After 1943, the German U-Boat threat was essentially nonexistent. Warnock also notes that, "In the Atlantic Ocean between September 1943 and the end of the war, German submarines sank fewer than twenty ships."[136] The Navy played a more active role in the Atlantic, when compared to the Pacific, in terms of providing coastal defense operations. But, in general, the Navy consistently prioritized posturing their forces beyond U.S. coastal waters and maintained an offensive position abroad.

4. Reactions After the Doolittle Raid and Preparations for the Battle of Midway

The Doolittle Raid on April 18, 1942, produced significant positive effects on American civil and military morale after the depressing days following the attack on Pearl

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133 A. Timothy Warnock, *The U.S. Army Air Forces in World War II: Air Power Versus U-Boats : Confronting Hitler's Submarine Menace in the European Theater* (Washington, DC: Air Force History and Museums Program, 1999), 4, https://media.defense.gov/2010/May/25/2001330266/-1/-1/0/AFD-100525-066.pdf.

134 Swartz, *Forward–from the Start*, 9–19.

135 Warnock, *The U.S. Army Air Forces in World War II*, 10.

136 Warnock, 22.

Harbor and simultaneously fostered substantial negative effects on Japanese morale. The negative effects on Japanese morale could be attributed to Japanese military leadership having insight and concerns about a possibility of a surprise attack on Tokyo and still being surprised with the successful air raid on Tokyo and Yokohama.

The United States was able to surprise Japanese military leaders, as stated by Siegel, with the use of "Army medium bombers (which had a longer range than any carrier-based aircraft)" off the U.S. aircraft carrier, USS Hornet, when bombing Tokyo and Yokohama.[137] Although the Doolittle Raid had immediate optimistic effects on U.S. morale, several U.S. military leaders were worried about the possibility of a Japanese retaliation attack targeting the West Coast. As stated by Siegel:

> in a meeting with Chief of Staff George C. Marshall and Chief of the Army Air Forces Henry "Hap" Arnold, Secretary of War Stimson spoke a few earnest words … about the danger of a Japanese attack on the west coast … "I am very much impressed with the danger that the Japanese, having terribly lost face in this recent attack on them in Tokyo and Yokohama, will make a counterattack on us with carriers, and the west coast is still very badly undermanned."[138]

He further adds that the Doolittle Raid led to the galvanization of the Japanese "both to seek to prevent another attack on Tokyo and to undertake some measure of revenge against the continental United States."[139]

The U.S. Navy's reaction regarding surface ship force allocation after the Doolittle Raid stayed true and consistent with earlier decisions of maintaining force concentration in the western Pacific and the eastern Atlantic. The Navy continued to leave most coastal defense missions to the Army and AAF even after many military and civil leaders believed that a major Japanese retaliation attack on CONUS was coming.

The importance and significance of accurate intelligence matched with proper prioritization and allocation of maritime forces was displayed at Midway. As stated by

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137 Siegel, *The Wartime Diversion*, 23.

138 Siegel, 23.

139 Siegel, 23.

Morison, intelligence collected regarding the Japanese attack on Midway influenced some naval leaders in Hawaii to believe that it was a deception tactic to conceal their real objective of raiding or invading Oahu.[140] The belief of the Japanese being eager to seek revenge from the aftermath of the Doolittle Raid could be one of many reasons why some officers in Hawaii believed that the attack on Midway was a distraction. If the Japanese could invade and occupy Hawaii, the Japanese would be primed and positioned to attack the American homeland in revenge for the attacks on Tokyo and Yokohama.

Although there were civil and military concerns of a Japanese attack to CONUS prior to the Battle of Midway, the Navy stayed true and consistent yet again regarding the allocation of surface forces to support coastal defense from April 1942 after the Doolittle Raid to June 1942. The naval emphasis on prioritizing and concentrating surface forces abroad, rather than on coastal defense, was critical for the successes at Midway. Under the guidance of Commander-in-Chief, U.S. Pacific Fleet (CINCPACFLT) Admiral Chester Nimitz, the U.S. fleet was concentrated and allocated to Midway which ultimately helped in securing the decisive victory at the Battle of Midway in June 7, 1942 turning the tides of war in favor to the U.S. As stated by Siegel, "CINCPACFLT, Adm. Chester W. Nimitz, acted on the intelligence information, however, and decided to concentrate the U.S. fleet against the Midway thrust, thus securing the dramatic victory at Midway."[141]

5. Post-The Battle of Midway through the End of WWII

From mid-1943 and onwards, the U.S. government began considering the idea of reducing the forces assigned to CONUS in support of the defense of the homeland. The homeland defense commands during WWII were established to plan, prepare, and execute homeland defense against enemy attacks. With coastal threats from the Japanese and Germans diminishing after the decisive victory in the Battle of Midway and the turning point in the Battle of the Atlantic with German U-Boats withdrawing from the North Atlantic, the United States was postured and in position to transition from a defensive

[140] Samuel E. Morison, *Coral Sea, Midway and Submarine Actions: May 1942 - August 1942* (Boston, MA: Little, Brown and Company, 1949), 80.

[141] Siegel, *The Wartime Diversion*, 24.

approach to an offensive one. As Siegel states, "The U.S. had clearly passed from the defensive to the offensive stage of the war, and there was general agreement in the government that all possible resources must be concentrated on the offensive."[142] Some military leaders believed that a slow transition and reduction of CONUS Defense Commands was the most appropriate measure moving forward while the AAF believed that a rapid offensive repositioning of forces was needed overseas to decisively defeat the Germans and Japanese. The overall belief from the AAF, as stated by Siegel, was "To withhold from offensive action a sufficient force to prevent such raids would render far greater assistance to the enemy than he could expect from the most effective raids."[143] With the U.S. transition of military forces from a defensive posture to an offensive position, the Navy was finally aligned with the Army and AAF. As stated by Siegel, by the end of 1944, there were less than 65,000 troops attached to the defense commands compared to the 379,000 troops attached at the start of 1942.[144]

The end of German U-Boat operations off the East Coast came with their deployment of five U-Boats in March 1945. With the assistance from naval intelligence, Operation Teardrop, the U.S. Navy's anti-submarine warfare operation to protect the East Coast, was in effect. As stated by Siegel, the maritime force allocation for the operation included "2 Hunter-Killer groups, each built around 2 escort carriers, and over 50 escorts deployed in the mid-Atlantic to intercept the 5 U-boats."[145] Ultimately, all five U-Boats were intercepted and destroyed. An uncharacteristic element for Operation Teardrop was the extensive maritime forces deployed against a minor threat to the homeland.

Although there was intelligence gathered that a last-ditch attack on the East Coast from the Germans would occur prior to Victory-in-Europe (V-E) Day, it seemed unlikely. However, the German U-Boat threat of carrying flying bombs and rockets targeting cities along the East Coast, led to the maritime force being concentrated along the East Coast and

142 Siegel, 32.

143 Siegel, 32.

144 Siegel, 32–34.

145 Siegel, 34.

mid-Atlantic. As stated by Siegel, Atlantic Fleet Commander, Vice Admiral Jonas Ingram positioned the Atlantic Fleet to "guarantee continued vigilance in coastal defense activity until V-E Day."[146] To ensure a smooth and complete defeat of the Germans, the Navy prioritized its forces in mass in the Atlantic to neutralize any threat towards the homeland. Operation Teardrop was one of the only times throughout the war that the Navy prioritized and allocated a substantial maritime force to support the defense of the homeland. It displayed the Navy's ability to shift priorities from fighting abroad to defending the homeland when national security interests at home were at large.

C. CONCLUSION

Overall, it may be said that in WWII the Navy seemed to be largely immune to diverting and reallocating maritime forces to support coastal defense operations when the American homeland was feared to be in danger. The Navy maintained its offensive nature and prioritized operations overseas, and for the most part this was an effective strategy. For example, maximizing and concentrating maritime force allocations for the Battle of Midway, rather than allocating forces to support coastal defense, led to the decisive victory at sea and crippled Japanese naval power tremendously after June 7, 1942. On the other hand, when significant homeland security threats did arise, such as when German U-boat activity increased off the East Coast late in the war, the Navy was able to adjust its force allocations to meet the threat. Siegel states that a key element of the Navy to preventing the surface fleet to reallocate in support of coastal defense was in "the ability of the principal military commanders involved to explain clearly to the political leadership the rationale underlying the preferred force allocation and the cost of altering that allocation."[147]

During WWII, the belief that the United States was a sanctuary was accurate and the Navy's prioritization of allocating naval forces abroad was effective. However, in a future conflict with peer competitors, the belief that the United States remains a safe haven

[146] Siegel, 34.

[147] Siegel, 38.

and continued prioritization of allocating naval forces primarily abroad could result in disaster for effective measures in homeland defense.

What might have happened if Japanese and German submarines had the capability and capacity to effectively disrupt or destroy critical infrastructure of the American homeland, in the way that Russia and China are developing such a capacity today? If Japan and Germany were successful in targeting CONUS, how would the Navy have changed its force allocation and priorities? Such a change could have directly affected the results from the Battle of Midway and the Battle of the Atlantic, and could have turned the tides of the war in favor of the Japanese and Germans rather than the United States. Examining the WWII experiences in light of today's threats to the homeland suggests that if future maritime forces are primarily focused overseas, and coastal defense remains an afterthought, the result could be disaster and destruction of the American homeland. The next chapter will consider the implications of such a threat.

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IV. ANALYSIS OF THE CURRENT MARITIME FORCE AND THE NEED FOR A BINATIONAL MARITIME DEFENSE COMMAND

With the understanding that the American homeland will not be a safe haven or sanctuary during future crisis or conflict with peer competitors, this chapter discusses the importance of balancing the prioritization and allocation of maritime forces to support both operations abroad and homeland defense. First, it offers a brief analysis of the Navy's current maritime force with both offensive and defensive warfare capabilities. Second, it demonstrates how NORTHCOM plans to counter the current credible threats to the homeland from peer competitors.

The chapter argues that as the maritime and missile capabilities of peer competitors such as Russia and China are continuing to advance, the threat environment of the homeland will become more complex and difficult for homeland defense systems to overcome. To counterbalance Russian and Chinese advances in maritime and missile capabilities, NORTHCOM and the Missile Defense Agency have developed a layered missile defense capability utilizing air, land, and sea forces to counter the current threats. Next, this chapter analyzes NORAD, a binational command organization responsible for aerospace defense of North America and identifies a missing maritime capability that inhibits its ability to fully counter the maritime and missile threat that Russia and China currently present.

A. THE CURRENT MARITIME FORCE

Although Ronald O'Rourke's CRS report on *Homeland Security: Navy Operations* was published in 2004, it remains remarkably applicable today.[148] Its discussion of the role of the Navy in dealing with potential homeland security threats is still timely, and its emphasis on the requirement for a greater homeland defense position on the part of the surface Navy still applies today.

148 O'Rourke, *Homeland Security: Navy Operations*.

O'Rourke states that "Potential homeland security threats that could relate to the Navy include attacks on the U.S. homeland by ballistic missiles or cruise missiles, particularly those that are launched from or fly over the seas."[149] O'Rourke also writes that potential Navy homeland security roles should "include defending the United States against ballistic or cruise missile attack."[150] One of the many ways to utilize maritime forces to counter the missile capabilities of peer competitors is to use ship-based radars and interceptor missiles from surface ships such as cruisers and destroyers. O'Rourke's recommendations for how the Navy could be utilized for homeland defense remains as applicable today as it was in 2004, such as when he writes that the "Administration's vision for missile defense includes the use of Navy systems (i.e., ship-based radars and interceptor missiles) as part of its overall architecture for defending the United States against ballistic missile attacks."[151]

O'Rourke's argument suggests that for the cruise missile threat to the American homeland today, a potential role for the maritime force would be to intercept surface ships or submarines of peer competitors that are armed with land-attack or anti-ship cruise missiles before the American homeland is within their weapons engagement zone (WEZ).[152] To take it one step further and make the statement more relevant to today, one could include as part of Navy homeland security roles the requirement to search for peer competitors at sea and assist civil authorities in responding to kinetic conventional warfare attacks. As history has proven before, the Navy prefers to allocate and deploy forces overseas to provide the first layer of national security and defense abroad. O'Rourke states that FDNF play a critical role in "deterring, detecting, and defending against threats to homeland security before they can come close to the United States."[153] However, with the development of maritime and missile capabilities of peer competitors and their ability to

[149] O'Rourke, 2.

[150] O'Rourke, 1.

[151] O'Rourke, 2.

[152] O'Rourke, 2.

[153] O'Rourke, 1.

target critical infrastructure in CONUS, maritime force allocation and prioritization will have to be held at a higher standard to ensure the safety of the homeland.

Peter Swartz mentions how the prioritization and allocation of maritime forces in support of homeland defense ebbed and flowed from the 1950s through the early 2000s.[154] The Navy emphasized coastal defense and allocated resources and forces accordingly from the late 1950s to the late 1970s: From the Cuban revolution in the late 1950s to the innovation and development of a Sea-Based Anti-Ballistic Intercept System in the mid-1960s, and to the utilization of antisubmarine warfare carrier task forces, the Navy emphasized coastal defense. However, by the late 1970s, the Navy began to shift maritime allocation and prioritization away from coastal defense. Once the Soviet Union collapsed in the early 1990s, all emphasis and focus was once again on forward operations, until 9/11. In the past 20 years, maritime forces have been allocated and deployed off U.S. coasts in support of possible airborne attacks from adversaries. As stated by O'Rourke, "In response to the terrorist attacks of September 11, 2001, the Navy placed its installations on the highest state of alert and deployed numerous ships to the waters off the East and West Coasts of the United States."[155] Ships were deployed to protect the U.S. Capitol, major cities, and major ports against potential attacks. However, after the perceived threat slowly diminished, maritime forces were once again allocated and prioritized overseas.

Although the U.S. Navy does not have the world's biggest fleet, as stated by Seck, it does own "11 of the world's 43 active aircraft carriers."[156] Alongside the 11 aircraft carriers, as stated in *All Hands*, the Navy has approximately 100 surface combatants and 55 submarines.[157] With a maritime force of approximately 170 ships that are capable of many offensive and defensive warfare capabilities, it is imperative for leaders to effectively and efficiently allocate these maritime forces to maximize their capabilities to project

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154 Swartz, *Forward–from the Start*, 10–12.

155 O'Rourke, *Homeland Security: Navy Operations*, 3.

156 Seck, "Active Ships in the U.S. Navy."

157 Naval Media Center, *All Hands: Magazine of the U.S. Navy*, Owners & Operators Manual 2015 (Washington, DC: Defense Media Activity, 2015), 32–35, https://allhands.navy.mil/Media/Owners-and-Operators/.

power overseas and maintain the ability to defend the homeland. As stated by Seck, "The 30-year shipbuilding plan released by the Navy in 2020 has the service reaching a fleet of 355 ships by 2049" with an emphasis on increasing the number of surface combatants.[158] Although increasing the number of ships would help alleviate some of the burden regarding maritime homeland defense, the problem still persists regarding the balance between forward presence and coastal defense.

Richardt states that "For America to defend itself, a layered defense and security network is required, spanning the maritime domain from overseas to the nation's coastline."[159] Although he is emphasizing an attack from terrorists, his statement is still applicable to peer competitors. A layered defense from forward deployed forces coupled with homeland defense forces is essential in the defense of the American homeland. Even though Richardt states that the Department of Defense (DOD) "is globally focused toward a forward leaning, offensive layered defense of the nation with the intent of defeating enemies of the United States as far from the U.S. homeland as possible," this stance from the Department of Defense does not take away the responsibility of allocating and prioritizing maritime forces closer to home.[160] Especially with peer competitors continuing to develop conventional capabilities that threaten CONUS, a layered defense structure to include air, land, and sea domains is critical for the successful defense of the homeland.

After the attack on 9/11, as stated in the United States Office of Homeland Security's *National Strategy for Homeland Security*, the DOD established a new unified combatant command, USNORTHCOM, in 2002 with the responsibility for planning, organizing, and executing homeland defense missions and to providing military support to domestic civil authorities during national emergencies.[161] The establishment of

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158 Seck, "Active Ships in the U.S. Navy."

159 Richardt, *The Security and Defense of America's Ports*, 5.

160 Richardt, 7.

161 United States Office of Homeland Security, *National Strategy for Homeland Security* (Washington, DC: United States Office of Homeland Security, 2002), 44–45, https://www.dhs.gov/sites/default/files/publications/nat-strat-hls-2002.pdf.

USNORTHCOM emphasized the importance of balancing forces and resources forward deployed and in the homeland. With the threat environment of the homeland drastically changing since peer competitors are able to target critical infrastructure in CONUS, as stated by Richardt, the Navy's mission of "deterring and striking threats to America's homeland, from a distant, forward leaning, and offensive posture" might not be viable in the future.[162]

Although the Navy has a historical and cultural tradition of fighting forward and defeating the enemy far from American soil, a paradigm shift will be required to successfully defend the homeland in the future. According to Patterson, beginning at least with *Forward … From the* Sea, "theater missile defense became a recognized capability that naval forces should develop."[163] From 1994 to now, the Navy has harnessed the capability to effectively utilize surface forces in support of missile defense functions. With peer competitors developing new technologies and capabilities that threaten the homeland, the Navy may soon be required to utilize their theater missile defense capabilities for the homeland rather than abroad.

As stated by Patterson, "The Navy no longer has 600 ships, 500 ships, 400 ships, or even 300 ships."[164] With only approximately 170 surface ships capable of both offense and defensive warfare capabilities, the U.S. maritime force is in a predicament as it hopes to simultaneously project power abroad and protect the homeland in a time of conflict with a peer competitor. As stated by Patterson, "Former CNO ADM Mullen vigorously promotes the concept of a 1000 ship navy. The 1000 ship navy is a metaphor for cooperation and collaboration between the seagoing nations of the world."[165] To build upon Former CNO Admiral Mullen's vision, one approach to countering the capabilities of peer competitors that threaten the homeland is to establish a binational maritime

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[162] Richardt, *The Security and Defense of America's Ports*, 12.

[163] Mark A. Patterson, *Defend the Approaches* (Carlisle Barracks, PA: Army War College, 2008), 2, https://apps.dtic.mil/sti/pdfs/ADA486738.pdf.

[164] Patterson, 4.

[165] Patterson, 13.

command organization dedicated to the defense of the homeland similar to NORAD's mission in the aerospace domain.

1. Applicable Maritime Threats to the Homeland

General O'Shaughnessy and General Fesler state that peer competitors such as Russia and China have developed the capability and the intention of holding critical sites in the United States at risk with conventional strikes and that the American "homeland is no longer a sanctuary."[166]

Russian maritime and missile capabilities that threaten the homeland include the following. First, the establishment in 2019 of an intermediate naval base with repair and maintenance capabilities in Syria.[167] Second, the development of the Kalibr-class 3M14T land attack cruise missile (LACM) with a max range of 4,000 km that can be launched from surface ships.[168] Third, the Russians have ICBMs with max ranges from 5,500 km to 11,000 km.[169] Fourth, they have the capability to launch submarine launched ballistic missiles (SLBM) with max ranges from 5,500 km to 8,000 km.[170] Fifth, their newest version of the Kalibr-class missile is the Kalibr-M, which is a hypersonic version with a max range of 4,500 km.[171] Lastly, if the Russians can combine hypersonic technology with current missile capabilities, it would further complicate the maritime and missile defense problem for the homeland.

Similarly, Chinese maritime and missile capabilities that threaten the homeland include the following. First, eerily like the Russians, the PRC has emphasized the need for intermediate bases abroad to project power and influence with their first overseas naval

166 O'Shaughnessy and Fesler, "Hardening the Shield," 2.

167 Janes, "Russian Federation - Executive Summary," 41.

168 Janes, 30.

169 Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 29–33.

170 Defense Intelligence Ballistic Missile Analysis Committee, 33.

171 Janes, "Russian Federation - Executive Summary," 31.

base in Djibouti in 2017.[172] Second, the PLA has restructured their military organization from a ground-centric military to a joint-centric military similar to that of the United States, with emphasis on becoming a blue water navy.[173] Third, China possesses an ICBM, the DF-31AG, with a max range of 11,200 km.[174] Fourth, the PLAN has the SLBM, the JL-2, with a max range of 7,500 km.[175] Fifth, in development, the JL-3 SLBM has been estimated that it could have a max range between 11,000 km to 12,000 km.[176] Lastly, again eerily similar to the Russians, the Chinese have begun successful development of incorporating hypersonic glide vehicle (HGV) technology on their current missiles. They showcased their ability to incorporate HGV technology with current missiles through the display of their Hypersonic Medium Range Ballistic Missile, the DF-ZF, in 2019.[177] With their continued development of HGVs, the Chinese have the ability to further complicate U.S. BMD capabilities and possibly oversaturate the maritime and missile threat environment of CONUS. One could argue that the current maritime and missile capabilities of peer competitors could mean that in the future, proper prioritization and allocation of maritime forces will be critical to balance between homeland defense and forward deployed operations.

2. NORTHCOM's Mission and Posture in Support of Homeland Defense

Overall, NORTHCOM is responsible for defending the American homeland. As stated in "NORAD and USNORTHCOM Mission Directive 1," USNORTHCOM conducts "homeland defense, civil support, and security cooperation to defend and secure the United

172 Janes, "China - Executive Summary," 21.

173 Janes, 25.

174 Janes, 116.

175 Janes, 76.

176 Janes, 77.

177 Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 22.

States and its interests."[178] As stated in the "USNORTHCOM and NORAD Posture Statement," "USNORTHCOM is the U.S. geographic combatant command responsible for defense of the United States homeland."[179] General VanHerck, Commander of NORTHCOM and NORAD, stated that currently the strategic environment is the most dynamic and complex environment that he has encountered in his 33 years of service.[180] VanHerck stated that the global geostrategic environment continues to evolve rapidly, and that peer competitors have begun to "circumvent our legacy warning and defensive systems and hold our homeland at risk."[181]

VanHerck warned the United States that in future crisis or conflict with peer competitors, such as Russia and China, to expect adversaries to utilize their developed and advanced capabilities to include conventional weaponry and that they will threaten critical infrastructure in the American homeland "in an attempt to limit our ability to project forces."[182] As stated by VanHerck, Russian and Chinese ability to utilize HGVs complicate the United States' ability to detect and defend against an inbound missile attack from air, sea, and land. The "USNORTHCOM and NORAD Posture Statement" also states that "in the foreseeable future" Russia and China will target key logistical nodes that support U.S. mobilization and sustainment in times of crisis or conflict.[183] It also states that NORTHCOM's ability to defend the homeland is critical in providing the foundation of the Department of Defense's worldwide missions and the "missions of every other combatant command."[184]

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178 Commander, North American Aerospace Defense Command and Commander, United States Northern Command, *NORAD and USNORTHCOM Mission Directive 1* (Colorado Springs, CO: Department of the Navy, 2016), 4, https://www.northcom.mil/Portals/28/NORAD-USNORTHCOM%20Mission%20Directive%201.pdf?ver.

179 VanHerck, "USNORTHCOM and NORAD Posture Statement."

180 VanHerck.

181 VanHerck.

182 VanHerck.

183 VanHerck.

184 VanHerck.

As stated by VanHerck, NORTHCOM is working closely with the Missile Defense Agency toward a layered missile defense capability "that will allow for a more flexible and responsive defense of the homeland against both ballistic and cruise missile threats" in an effort to counterbalance peer competitor advances in missile technology.[185] A major milestone towards establishing this layered capability was in November 2020 when the Navy had a successful engagement of an ICBM-class target with an SM3-IIA interceptor.[186] However, with our current maritime force, it is difficult to assess if it is adequate to assume homeland defense missions in conjunction with forward deployed mission. Interestingly, there has not been a Navy commander of NORTHCOM since 2016. The lack of a Navy commander of NORTHCOM since 2016 could be a factor in the lack of emphasis that appears to exist toward incorporating the maritime component to NORAD, the established binational aerospace defense command.

3. NORAD's Mission and Posture in Support of Homeland Defense

The North American Aerospace Defense Command is a binational command in nature. As stated in "NORAD and USNORTHCOM Mission Directive 1," NORAD conducts "aerospace warning, aerospace control, and maritime warning in the defense of North America."[187] With the Commander of NORTHCOM also being Commander of NORAD, the command element of NORAD is at the same level or higher than that of a Geographic Combatant Command. The command element is important when determining priorities and allocation of resources and forces in support of homeland defense. Similar to NORTHCOM, dealing with HGV technology is a major issue and problem for NORAD because hypersonic missiles are, as stated by VanHerck, designed to complicate the ability to detect and defend against incoming attacks from the air, sea, and land.[188]

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185 VanHerck.

186 "U.S. Successfully Conducts SM-3 Block IIA Intercept Test Against an Intercontinental Balli," U.S. Department of Defense, accessed November 15, 2021, https://www.defense.gov/News/Releases/Release/Article/2417334/us-successfully-conducts-sm-3-block-iia-intercept-test-against-an-intercontinen/.

187 Commander, North American Aerospace Defense Command and Commander, United States Northern Command, *NORAD and USNORTHCOM Mission Directive 1*, 3.

188 VanHerck, "USNORTHCOM and NORAD Posture Statement."

With the recent successful engagement of an ICBM-class target by a Navy surface combatant, it would be beneficial for a command like NORAD to utilize and control ships with the capability to bolster a layered defense capability for the North American region in the maritime domain. In an attempt to counter the ability of Russia and China to oversaturating the threat environment of the homeland, NORTHCOM and NORAD have focused already on investments to improving sensor networks and a push for all domain awareness. With the rise of maritime and missile development of peer competitors it makes sense to push for awareness in all domains of land, air, and sea. However, one shortfall in NORAD's push for all domain awareness is that, currently, NORAD does not have the capacity and authority to control maritime forces after it gathers and collects intelligence and warning on maritime targets that threaten the homeland. The NORAD commander and deputy commander are always a four-star U.S. general or equivalent and a Canadian three-star general or equivalent, respectively.[189] With the NORAD mission of deterring adversaries by denying and defeating threats through all-domain awareness, it would seem to be more difficult to accomplish that mission if the command does not inherently have the ability to control maritime forces to help achieve it.

Several advantages of a binational defense command, such as NORAD, are increased legitimacy, improved deterrence, the ability for burden sharing for the United States and Canada, and for less pre-positioning to be required.[190] But as noted above, a major disadvantage for NORAD as a binational command organization is its inability to control maritime forces in support of homeland defense of North America. NORAD was first established and formalized on May 12, 1958, over concerns of the threat of Soviet bombers.[191] Since then, there have been over ten revisions and renewals of the NORAD agreement with the latest being in May 2006.[192] Interestingly, as stated in the "NORAD Agreement," the latest renewal of the NORAD agreement between the United States and

189 "NORAD Leaders," North American Aerospace Defense Command, accessed November 14, 2021, https://www.norad.mil/Leadership/.

190 Dayne Nix, "Multinational Operations" (Naval Postgraduate School, December 2021), 13.

191 "NORAD Agreement," North American Aerospace Defense Command, accessed November 14, 2021, https://www.norad.mil/Newsroom/Fact-Sheets/Article-View/Article/578772/norad-agreement/.

192 "NORAD Agreement."

Canada included adding a "maritime warning mission to the command's existing missions."[193]

B. CONCLUSION

This chapter focuses on some key elements. With the size of the current U.S. Navy's maritime force to include approximately 170 surface ships capable of conducting both offensive and defensive warfare operations, it is more important than ever for NORTHCOM to properly allocate the surface Navy to effectively conduct homeland defense missions. With the threat environment rapidly changing and peer competitors' continued development of maritime and missile capabilities, the Navy must find ways to tip the balance in its favor.

NORAD's binational command organization is beneficial to countering the oversaturation of the threat environment built by peer competitors in a multitude of ways. NORAD has been successful in defending the American homeland from air threats since the 1950s through increased legitimacy, improved deterrence, and the ability for burden sharing forces between the United States and Canada. However, with increased maritime and missile capabilities of peer competitors, NORAD might not be enough in the future. In the next revision and renewal process of the NORAD agreement, one recommendation is to include maritime control to NORAD's mission set. Next, the organizational structure should be changed to integrate the U.S. Navy and the Royal Canadian Navy and ultimately change the name from NORAD to the North American Maritime and Aerospace Defense Command or NORMAD.

193 "NORAD Agreement."

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V. CONCLUSION AND RECOMMENDATIONS

The surface Navy is not adequately prepared to defend against future contingencies against the American homeland. To reach this conclusion, this thesis focused on several key factors. First, it examined the need for a paradigm shift in the belief that the American homeland will remain a sanctuary in future conflict with peer competitors. Second, it took a close look at increased maritime and missile capabilities of peer competitors such as Russia and China. Third, it analyzed force allocations and priorities of Naval surface combatants in relation to forward deployment or coastal defense during WWII. Lastly, it analyzed the current number of surface ships with both offensive and defensive warfare capabilities along with current NORTHCOM and NORAD homeland defense missions.

With Russia and China continuing to develop maritime and missile capabilities and technologies that threaten the homeland, one can argue that a clear homeland defense mission that includes air, land, and sea domains is required at the U.S. and Canadian binational level to successfully counter threats from peer competitors in the future. Establishing a binational maritime and aerospace defense command will present the American homeland as an almost impregnable shield. Secondary impacts of establishing a binational maritime and aerospace defense command could be that the defense command is seen as a credible deterrent measure in the future.

This chapter provides a brief overview of the thesis so far to defend the point that the surface Navy is not adequately prepared for contingencies such as an attack on CONUS in the future due to emerging threats from peer competitors. It then transitions to providing a recommendation of establishing a North American Maritime and Aerospace Defense Command or NORMAD to counter the increased maritime and missile developments and capabilities that potentially can more greatly threaten the homeland from peer competitors in the foreseeable future. The primary purpose for the recommendation of establishing of a binational maritime and aerospace defense command is to help alleviate prioritization and allocation concerns of the Surface Navy to maximize forward presence while maintaining a layered defense strategy of the homeland that includes the air, land, and sea domains. This chapter then concludes with questions for further research related to the

establishment of a binational maritime defense command and how it will affect current surface Navy deployment cycles.

A. CHAPTER SUMMARIES

Chapter Two stressed that in future crisis or conflict, CONUS cannot be assumed to remain a safe haven while our armed forces are fighting an away game. The chapter also concentrated on maritime and missile capabilities of our peer competitors, such as Russia and China, that can threaten the homeland in crisis or conflict. It concluded with the need to have a balanced strategy of offensive and defensive measures to counter the threat of the homeland.

Chapter Three examined how the Navy prioritized and allocated surface combatants during WWII. It emphasized how the Navy prioritized and allocated forces to be forward deployed rather than on coastal defense of the homeland. A critical element to the successes at sea abroad for the Navy was because there were no credible threats to the homeland. This chapter concluded that with increased maritime and missile capabilities of peer competitors today, more focus will have to be placed on homeland defense from the Navy regarding the prioritization and allocation of forces abroad and at home.

Chapter Four provided a summary of the surface combatants in the Navy and the need for the Navy to emphasize maritime homeland defense missions in the future. It identified both NORTHCOM and NORAD responsibilities and missions in support of homeland defense. With increased maritime and missile capabilities from peer competitors, a layered defense capability of the homeland should include air, land, and sea. This chapter concluded by asserting the advantages of a binational command, such as NORAD, in aerospace defense of the homeland while indicating that it does not contain a maritime control function and capability.

B. RECOMMENDATION FOR THE ESTABLISHMENT OF A NORTH AMERICAN MARITIME AND AEROSPACE DEFENSE COMMAND

With maritime and missile capabilities continuing to develop from peer competitors, such as Russia and China, the maritime domain will become more and more critical in countering and defeating threats to the homeland. With the belief that in the

future, the maritime domain will become more critical in the success of homeland defense, thus, this research recommends the establishment of a North American Maritime and Aerospace Defense Command or NORMAD. As stated in the United States' "National Strategy for Homeland Security," issued soon after the attacks on 9/11, those attacks brought to the fore the need for the Department of Defense to establish USNORTHCOM, whose primary mission was to be responsible for the planning, organizing, and execution of homeland defense missions for the United States.[194] Along with NORTHCOM's mission of defending the homeland and with former CNO Admiral Mullen's vision and concept of a 1,000 ship navy which, as stated by Patterson, "is a metaphor for cooperation and collaboration between seagoing nations," the recommendation for establishing a binational command that emphasizes the use of maritime forces to support homeland defense requirements aligns with the thinking among senior Navy leaders today.[195]

The increased maritime and missile capabilities of Russia and China combined with the development of hypersonic technology, such as the hypersonic glide vehicles (HGVs), make it complicated for legacy missile defense systems to intercept and destroy such threats.[196] HGVs are capable of operating at high speeds and at relatedly low altitudes with high maneuverability to confuse or oversaturate U.S. missile defense systems.[197] As stated in Dalton's *Forward … From the* Sea, he says that theater missile defense utilizing surface combatants became a credible and recognized capability that naval forces should continue to assess regarding the ability to "contribute to extending conventional deterrence."[198] With the successful engagement of a ICBM-class target with an SM3-IIA off of an AEGIS destroyer in 2020, this successful engagement further emphasizes the need for surface

194 United States Office of Homeland Security, *National Strategy for Homeland Security*, 44–45.

195 Patterson, *Defend the Approaches*, 13.

196 Defense Intelligence Ballistic Missile Analysis Committee, *2020 Ballistic and Cruise Missile Threat*, 8.

197 Defense Intelligence Ballistic Missile Analysis Committee, 8.

198 John H. Dalton, *Forward Naval Presence: A Strategy of Engagement, Partnership, Prevention … from the Sea* (Washington, DC: Department of the Navy, 1994), 4.

combatants with offensive and defensive capabilities to be a part of the theater missile defense plan of the homeland.[199]

Although direct involvement in coastal defense has rarely been the case for the Navy, with increased maritime and missile capabilities of peer competitors, the Navy will have to emphasize and allocate forces accordingly in future crisis or conflict. The Navy will have to break away from its historical and traditional mindset of fighting forward and engaging enemy forces far from shore with the shift that the United States is not a sanctuary any longer during crisis and conflict. As stated by Patterson, "The threat has changed and will continue to evolve and the need to support … and provide defense of the nation means navy assets must operate closer to U.S. territory."[200]

For future conflicts, the belief that CONUS remains a sanctuary is dangerous to national security and homeland defense. The belief that the United States is invincible, and that CONUS is free from attack with conventional weaponry from peer competitors is eerily similar to the thoughts and minds of U.S. military and civil leaders prior to the attack on Pearl Harbor. In the future, if the United States must deal with peer competitors with force and it escalates to the use of kinetic conventional weapons, a maritime strategy that overemphasizes the allocation of surface forces to being primarily abroad might result in disaster. A more balanced allocation of surface forces abroad and at home might be required for the United States, at the national strategic level, to not overextend and go beyond the culminating point.

With the current threat environment constantly changing due to peer competitors' development of new technologies and capabilities, the Navy might be required to prioritize coastal defense more so than in the past. With the current increased maritime and missile capabilities of peer competitors such as Russia and China, a maritime strategy that includes the prioritization of allocating maritime forces "away" rather than at "home" might not be a viable solution in the future. One solution to the fear of prioritizing and allocating

199 "U.S. Successfully Conducts SM-3 Block IIA Intercept Test."

200 Patterson, *Defend the Approaches*, 15.

maritime forces improperly to effectively defend the homeland is to establish a binational maritime and aerospace defense command.

The advantages of a binational maritime and aerospace defense command include increased legitimacy, improved deterrence, less pre-positioning and deployment required, and most importantly burden sharing.[201] Adding the maritime element to the already established NORAD will allow both the United States and Canada to burden share, prioritize, and allocate surface combatants effectively utilizing both U.S. and Canadian resources. The disadvantages of a binational defense command include varying national agendas, interoperability, intelligence sharing, command arrangements, and logistical arrangements.[202] However, if the recommended North American Maritime and Aerospace Defense Command is established during a peacetime environment, both the United States and Canada will have the ability to align national agendas, fix interoperability challenges, and hash out command and logistical shortfalls. If a binational maritime and aerospace defense command is not established during peacetime, the alternative would be to organize a binational maritime defense command during times of crisis and conflict and be unable to resolve underlying issues and disadvantages of them.

As Richardt states, "a command dedicated to maritime defense would detect, track, and monitor" maritime threats to the homeland.[203] To take it one step further and to be aligned with current NORAD guidance to "deter adversaries, deny and defeat threats through all-domain awareness, information dominance, decision superiority, and global integration," a maritime and aerospace defense command will be responsible for executing missions to deter, deny, and defeat threats in air, land, and sea domains with the integration of Royal Canadian Navy forces.[204] As stated by VanHerck, NORTHCOM and NORAD are investing in the development of "layered denial, deterrence, and defeat mechanisms

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201 Nix, "Multinational Operations," 13.

202 Nix, 14.

203 Richardt, *The Security and Defense of America's Ports*, 19.

204 "North American Aerospace Defense Command," North American Aerospace Defense Command, accessed November 14, 2021, https://www.norad.mil/Newsroom/Fact-Sheets/Article-View/Article/578770/north-american-aerospace-defense-command/.

capable of addressing current and emerging threats, are fundamental to the defense of our homeland."[205]

The establishment of a binational maritime and aerospace defense command whose primary mission is the defense of the homeland could assist in providing a layered denial mechanism incorporating not only air and land but also sea. Also, it could provide a deterrence mechanism by displaying to future adversaries that the United States is almost impregnable through the shield known as the North American Maritime and Aerospace Defense Command. This defense command would have the capability of conducting not only aerospace and maritime warning missions but also capable of conducting aerospace and maritime control mission in the defense of North America. The establishment of a binational defense command that is responsible for the defense of North America in all domains, could improve the allocation and prioritization of maritime forces to maximize effectiveness to support the homeland defense mission.

A binational maritime and aerospace defense command dedicated in the defense of North America could better establish clear lines of Command and Control to smoothly and rapidly transition from centralized planning of how to counter threats to the homeland to decentralized execution of deterring, denying, and destroying threats to the homeland. As stated by Vego, "Organizational flexibility is achieved by decentralizing command and control, delegating specific and well-defined functions and responsibilities, and rapidly deploying forces to meet specific situations. Without decentralized command and control it is difficult for a force to be effective when it is faced with a situation demanding quick and timely action."[206] Another benefit of a binational maritime and aerospace defense command would be to have Unity of Command over all forces engaged in defending the homeland. Unity of Command is critical in military operations because it allows the commander to direct all forces toward a common goal or objective thus maximizing effectiveness with a given force. As stated in "Joint Publication (JP 3-0)," "The purpose of

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[205] VanHerck, "USNORTHCOM and NORAD Posture Statement."

[206] Milan N. Vego, *Joint Operational Warfare: Theory and Practice* (Newport, RI: Naval War College, 2009), VIII-13, https://cle.nps.edu/access/content/group/05fb9d4b-620a-43c0-be4d-e6b8b34a59fa/readings/cde8100.pdf.

unity of command is to ensure unity of effort under one responsible commander for every objective … Unity of command means all forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose."[207]

C. RECOMMENDATIONS FOR FURTHER RESEARCH

The research conducted for this thesis has raised additional questions and recommendations for further research.

Are there any political or military disputes between the United States and Canada on establishing a maritime defense command? If there are no disputes, and a binational maritime and aerospace defense command is established, how could the Royal Canadian Navy be utilized in support of conducting the homeland defense mission?

Does the Surface Navy need more ships in service and operational to conduct both FDNF offensive missions and coastal defensive missions against Russian and Chinese threats? If the Navy does require more ships, how could the utilization of unmanned surface vessels provide support to defeating current threats to the homeland? If in the future U.S. surface combatants are utilized for homeland defense operations in the NORTHCOM AOR, as O'Rourke states, how could it affect current "training and maintenance schedules for ships preparing to deploy overseas?"[208] Furthermore, dependent on how surface combatants are utilized for homeland defense operations closer to home, as O'Rourke states, how will it "affect the Navy's ability to maintain" a credible and significant FDNF presence overseas?[209]

Lastly, in a future crisis or conflict with peer competitors in which CONUS will be threatened with conventional weaponry, how much will public opinion and public outcries for homeland defense affect force allocation of offensive forward deployed missions versus coastal homeland defense missions?

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[207] Joint Chiefs of Staff, *Joint Operations*, JP 3 (Washington, DC: Joint Chiefs of Staff, 2018), A-2, https://cle.nps.edu/access/content/group/05fb9d4b-620a-43c0-be4d-e6b8b34a59fa/JointPubs/JP%203-0%20JointOperations120170117chg1_20181022.pdf.

[208] O'Rourke, *Homeland Security: Navy Operations*, 7.

[209] O'Rourke, 7.

D. CONCLUSION

This thesis finds that the American homeland will be targeted by peer competitors during a future crisis or conflict. The significance of the threat to the homeland is real and peer competitors' maritime and missile developments and capabilities make the threat credible. Based on these credible threats to the homeland, the Navy will have to balance appropriately on prioritizing and allocating forces abroad and at home. The Navy will have to break away from the traditional maritime strategy of primarily only fighting abroad, and it will need to provide assistance to enhance a layered defense approach to effectively defend the homeland in the future. Thus, this thesis recommends establishing a binational maritime and aerospace defense command to ensure that air, land, and sea forces are prioritized and allocated appropriately for the defense of the American homeland during crisis or conflict in the future.

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