

MOBILIZING THE COAST GUARD FOR WAR: AN ANALYSIS OF
THE U.S. COAST GUARD'S WARTIME PREPARATION
ACTIVITIES FROM 1918-1941

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
Military History

by

NOLAN V. CAIN, LIEUTENANT COMMANDER, U.S. COAST GUARD
Bachelor's in History, Winston-Salem State University, 2006

Fort Leavenworth, Kansas

2020

Approved for public release; distribution is unlimited. Fair use determination or copyright permission has been obtained for the inclusion of pictures, maps, graphics, and any other works incorporated into this manuscript. A work of the United States Government is not subject to copyright, however further publication or sale of copyrighted images is not permissible.

REPORT DOCUMENTATION PAGE			<i>Form Approved</i> <i>OMB No. 0704-0188</i>		
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 12-06-2020		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) AUG 2019 – JUN 2020	
4. TITLE AND SUBTITLE Mobilizing the Coast Guard for War: An Analysis of the U.S. Coast Guard's Wartime Preparations from 1918-1941			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) LCDR Nolan V. Cain, U.S. Coast Guard			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301			8. PERFORMING ORG REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The U.S. Coast Guard has a unique role as a military armed force with extensive peacetime missions. In nearly every U.S. Conflict, the service has been a part of wartime naval operations. The most notable occurrences were during World War I and World War II, where the entire service integrated into the Department of the Navy. Beginning with World War I, this thesis traces the Coast Guard's development and expansion throughout the interwar period up until World War II. It examines the hearings and proceedings of the General Board of the Navy to show how Coast Guard cutters were prepared for combat. It also analyzes strategic war planning documents to show the Navy's intent to mobilize, organize and employ the Coast Guard during war. The findings of these studies are then applied to challenges facing the modern day Coast Guard.					
15. SUBJECT TERMS U.S Coast Guard, General Board, War Plans, Mobilization, World War I, World War II, Prohibition.					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. PHONE NUMBER (include area code)
(U)	(U)	(U)	(U)	151	

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Nolan V. Cain

Thesis Title: Mobilizing the Coast Guard for War: An Analysis of the U.S. Coast Guard's Wartime Preparation Activities from 1918-1941

Approved by:

_____, Thesis Committee Chair
John T. Kuehn, Ph.D.

_____, Member
David W. Christie, M.A.

_____, Member
Richard T. Anderson, M.A.

Accepted this 12th day of June 2020 by:

_____, Director, Office of Degree Programs
Prisco R. Hernandez, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

MOBILIZING THE COAST GUARD FOR WAR: AN ANALYSIS OF THE U.S. COAST GUARD'S WARTIME PREPARATIONS FROM 1918-1941, by Nolan V. Cain
151 pages.

The U.S. Coast Guard has a unique role as a military armed force with extensive peacetime missions. In nearly every U.S. Conflict, the service has been a part of wartime naval operations. The most notable occurrences were during World War I and World War II, where the entire service integrated into the Department of the Navy. Beginning with World War I, this thesis traces the Coast Guard's development and expansion throughout the interwar period up until World War II. It examines the hearings and proceedings of the General Board of the Navy to show how Coast Guard cutters were prepared for combat. It also analyzes strategic war planning documents to show the Navy's intent to mobilize, organize and employ the Coast Guard during war. The findings of these studies are then applied to challenges facing the modern-day Coast Guard.

ACKNOWLEDGMENTS

I am very grateful to the members of my thesis committee, Dr. John T. Kuehn, Mr. David Christie, and Mr. Richard Anderson, for guiding me throughout this project. I certainly would not have been able to complete it without their help. Thanks to Dr. David Mills and Mr. Christopher Johnson for their continual motivation. A special thanks to the members of the Combined Arms Research Library References Services staff; Ms. Stacey Weins, Mr. Dan Barbuto, Ms. Barbara Sonnenmoser, Ms. Anne Davis, Ms. Florian Kardoskee, and Mr. Rusty Rafferty; for assisting me with finding references and filling my countless requests for microfilm rolls. I also want to extend my gratitude to the Coast Guard Historian, Mr. Scott Price, the Atlantic Area Historian, Dr. William Thiesen, and the U.S. Coast Guard Academy Special Collections Librarian, Ms. Elisa Graydon. Thanks to my friends and family for their continual support. Finally, I am dedicating this project to the coast guardsmen who served during World War I, the inter-war period, and World War II. May their loyal service to our nation never be forgotten.

TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE	iii
ABSTRACT.....	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS.....	vi
ACRONYMS.....	vii
ILLUSTRATIONS	viii
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 THE COAST GUARD IN THE GREAT WAR.....	14
CHAPTER 3 PROHIBITION AND THE INTERWAR PERIOD.....	36
CHAPTER 4 THE GENERAL BOARD’S INFLUENCE ON CUTTER DESIGN	61
CHAPTER 5 COAST GUARD AND THE WAR PLANS	91
CHAPTER 6 CONCLUSIONS	114
Areas for Future Research	131
APPENDIX A COAST GUARD DESTROYERS.....	132
APPENDIX B CUTTER CHARACTERISTICS	134
BIBLIOGRAPHY.....	139

ACRONYMS

DoN	Department of the Navy
FRC	Fast Response Cutter
nm	Nautical Miles
NSC	National Security Cutter
RCS	Revenue Cutter Service
OPC	Offshore Patrol Cutter
OpNav	Office of the Chief of Naval Operations
SecNav	Secretary of the Navy

ILLUSTRATIONS

	Page
Figure 1. Cutter <i>Seneca</i>	19
Figure 2. Cutter <i>Tampa</i> Moored in the Strait of Gibraltar	25
Figure 3. First Coast Guard Aviation Group.....	29
Figure 4. <i>Beale</i> , Paulding-class Coast Guard Destroyer	42
Figure 5. A “six-bitter” 75-foot Patrol Boat.....	44
Figure 6. <i>Algonquin</i> , 165’ <i>Escanaba</i> -class Cutter.....	65
Figure 7. <i>Tampa</i> , 240’ <i>Tampa</i> -class Cutter.....	66
Figure 8. <i>Chelan</i> , 250’ Lake-class Cutter	77
Figure 9. Cutter <i>Bibb</i> , 327’ Treasury-class Cutter.....	86
Figure 10. Constructor Frederick A. Hunnewell.....	89

CHAPTER 1

INTRODUCTION

“The Coast Guard is the hard nucleus about which the Navy forms in time of war.” Recruits learn this saying at the Coast Guard’s Training Center in Cape May, New Jersey, and cadets at the Coast Guard Academy in New London, Connecticut. The phrase serves as a reminder to new members that the Coast Guard is first, and foremost, an armed service. This fact is often overlooked, perhaps due to the service’s many peacetime humanitarian and law enforcement missions, which tend to overshadow the Coast Guard’s military duties. However, throughout the years, it has augmented the Navy during the time of war. The most notable examples of the service’s wartime contributions are World War I and World War II when it was transferred from the Department of Treasury to the Department of the Navy (DoN) and conducted merchant ship convoy escorts and anti-submarine warfare.

There were significant challenges associated with transferring the Coast Guard to the DoN and preparing it to shift from carrying out its multi-mission peacetime role to its wartime duties. This thesis explores the steps taken to integrate the Coast Guard within the DoN before World War II. Examining the service’s development during World War I and the Prohibition Era sheds light on how these events prepared the organization for later wartime operations. An analysis of the Hearings and Proceedings of the General

Board of the Navy and the Army-Navy War Plans will show the Navy's strategic intent to outfit the Coast Guard cutters for combat and employ them to augment the naval fleet.¹

The Coast Guard has transferred to different departments many times throughout its existence. While the service currently resides in the Department of Homeland Security, it originated in the Department of Treasury with the founding of the Revenue Cutter Service (RCS) in 1790. It was later relocated to the Department of Transportation in 1967. Historically, the Coast Guard's predecessor, the RCS, had assigned cutters to the Navy and cooperated. It was not until World War I and World War II that the entire organization was transferred to the DoN.² Recent authors in naval publications contend that the DoN is where the Coast Guard belongs. They argue that permanently transferring the Coast Guard to the DoN would give the Coast Guard a more stable budget and yield efficiencies in manning, equipping, and training forces.³ The notion of moving the Coast Guard permanently under the DoN is not new. The proposal of combining the Coast Guard, or RCS, with the Navy, was considered by Congress in 1840, 1841, 1842, 1843, 1846, 1859, 1882, 1884, 1892, and again in 1918 following World War I. The redundancy of maintaining two naval services was the basis of the proposals to the merge the service with the Navy.⁴

The issue emerged again in 1933, as Congress sought efficiencies in the Executive Branch due to resource constraints brought on by the Depression. This time, the idea was to have the Navy take over logistics and shipbuilding, while the Department of the Treasury would still manage the service's operations. The proposal was ultimately

¹ Coast Guard vessels greater than 65 feet are referred to as cutters, a term synonymous with ships.

² Robert Johnson, *Guardians of the Sea: History of the United States Coast Guard, 1915 to the Present* (Annapolis: Naval Institute Press, 1987), 2; Alex Larzelere, *The Coast Guard in World War I: An Untold Story* (Annapolis, Md: Naval Institute Press, 2003), 8.

³ Gregory Sanial, "The Coast Guard Belongs with DoD," U.S. Naval Institute *Proceedings* 145, no. 9 (September 2019): 64-67; Daniel Wiltshire, "Put the Coast Guard in the Department of the Navy," U.S. Naval Institute *Proceedings* 145, no. 8 (August 2019), accessed 13 April 2020, <https://www.usni.org/magazines/proceedings/2019/august/put-coast-guard-department-navy>.

⁴ Larzelere, 241, 249.

rejected, like those before it. The Coast Guard remained in the Department of the Treasury. The proposed merger brought much opposition from the maritime community and newspapers in coastal cities.⁵ An excerpt from the Hartford *Courant* published on the 23 December 1933 of the *Army-Navy Journal* highlights the controversy of the proposed reorganization, as well as the distinctive roles of the Navy and the Coast Guard. It states:

While it is possible that the proposed unification of the United States Coast Guard and the Navy might in some measure, reduce the expense of maintaining two separate services, there are more than sentimental objections to the proposal. It is true that, in time of war, the Coast Guard is transferred from the Treasury Department, under which it operates in peacetime, to the Navy Department, becoming to all intents and purposes part of the Navy. But the primary function of the Coast Guard is the peaceable one of saving life and property at sea and enforcing the maritime laws, while the primary function of the Navy is entirely a military one. The emphasis in the Coast Guard is properly on the maintenance of an organization fitted to perform the tasks of peace; with equal propriety, the emphasis of the Navy is on the development of the most effective possible war machine.⁶

The above excerpt indeed emphasizes the importance of the Coast Guard's peacetime missions. Nevertheless, the Coast Guard has a vital wartime function as well. An examination of the service's history is necessary to fully understand its dual role as a multi-mission peacetime organization and armed service.

Following the Revolutionary War, the fledgling United States was attempting to figure out how to pay for its \$70,000 debt incurred during the war and finance the day-to-day operations of the government. The Revenue Act of 1789 was a partial solution to this problem. However, since the Continental Navy was disbanded after the war, there was no way to prevent the circumvention of revenue taxes by seaborne smugglers. On 4 August

⁵ Johnson, 130-132.

⁶ "Navy-Coast Guard Combine," *Army Navy Journal* (December 1933), 326.

1790, Congress authorized the construction of 10 cutters. The law did not establish the service by name, and it was referred to variously as the “Revenue Service” or the “Revenue-Marine.” The service’s official designation as the “Revenue-Cutter Service” did not come about until 1863.⁷

The revenue cutters were quickly constructed and began anti-smuggling operations and enforcement of navigation laws in 1791. It is thought that most of these original cutters were constructed as two-masted schooners. They were light, fast, and simple in design, had excellent seakeeping capability, and needed only a small crew to operate. Evans describes them as having “sharp lines of bow and stern . . . graceful sheer and very low freeboard.” The men who crewed the early cutters came from the merchant fleet, and some brought experience from the Revolutionary war. John Foster Williams and Elisha Hinman are two notable examples. During the war, Williams served as the captain of the Massachusetts State Navy cruiser *Protector* and later went on to command the cutter *Massachusetts*. Hinman served in the Continental Navy, commanding the brig *Cabot* and later the 24-gun *Alfred*. In these early days, the cutters patrolled the coasts boarding merchant ships and inspecting their cargo. It would not be long until the Revenue-Marine duties would expand, which is a recurring theme throughout the service’s history.⁸

In 1797, due to growing tensions with France, Congress authorized an increased crew size for the cutters, and at the President’s discretion, allowed them to “defend the

⁷ Stephen Evans, *The United States Coast Guard, 1790-1915: A Definitive History* (Annapolis: Naval Institute Press, 1949), 3-7; Johnson, 32.

⁸ Evans, 7, 9, 13-14; Johnson, 1-2.

seacoast and repel any hostility to their vessels and commerce.” Later legislation in 1799 authorized the President to place revenue cutters in the service of the newly established Navy, but President John Adams had already done so in 1798. Eight cutters served with the Navy during the Quasi-War with France (1798-1800), seizing 15 armed French vessels, and assisting in the capture of five more. These actions set a precedent for how the Revenue-Marine would cooperate with the Navy during future conflicts.⁹

During the 19th Century, revenue cutters would again come under the control of the Navy in the War of 1812, the First Seminole War, the Mexican-American War, the Civil War, and the Spanish American War. The impact of the small service in these conflicts was modest but proportionally significant. Legislation passed in 1814 gave battle casualties from the revenue cutters Navy pensions, the only disability available for cutter men for nearly 100 years.¹⁰

In addition to customs enforcement and navigation laws, the Revenue-Marine took on many other duties. In 1807, the service was tasked with preventing the slave-trade and enforcing embargos. Legislation in 1819 and 1820 authorized the President to use cutters for anti-piracy. Other duties included enforcing quarantine regulations, neutrality laws, and even enforcement of an early conservation statute, the Timber Reserve Act of 1822 that prohibited the export of Florida live oak lumber. The most important duty of the modern-day Coast Guard, saving life at sea, was initially undertaken on a not-to-interfere basis. It was not until 1832, when the Secretary of the

⁹ Evans, 14-16; Johnson, 2.

¹⁰ Evans, 22; Johnson, 2.

Treasury Louis McLane would direct cutters to patrol specifically to conduct lifesaving duties. Legislation passed in 1837 authorized the President to employ “public vessels” to conduct wintertime patrols to aid mariners in distress, formalizing the service’s search and rescue duties.¹¹

Rendering aid to mariners was also carried out by several private organizations, one of the earliest and most notable examples was the Massachusetts Humane Society, founded in 1786. These organizations established shore stations with lifeboats and line throwing equipment to save mariners whose ships foundered on the coastline. Beginning in 1847, the government provided funding for shore stations, and in 1848 its expenditure came under the supervision of Revenue-Marine officers. Stations were quickly established along the East Coast, the Gulf Coast, and the Great Lakes. In 1869, the Division of the Revenue-Marine was established within the Department of Treasury. The division administered oversight of the stations as well as the revenue cutters. In 1871, Congress authorized \$200,000 to buy equipment for the stations, referred to it as the Lifesaving Establishment. 1878 marked the formal establishment of the U.S. Life-Saving Service.¹²

The purchase of the Alaska Territory for \$7.2 million in 1867 signaled, yet again, an expansion of RCS duties. The expansive territory and its vast natural resources quickly came under the protection of revenue cutters. In 1867, the cutter *Lincoln* conducted the first RCS Alaska patrol. Their purpose was to reconnoiter future locations for

¹¹ Evans, 29; Johnson, 4.

¹² Johnson, 4-7.

lighthouses, coaling stations, customhouses, and collect coastal survey information. In 1879, revenue cutters began annual patrols of the Alaskan waters and the Arctic Ocean. During these early patrols, the RCS was the preeminent government agency in the Alaska territory, routinely rendering aid to whaling crews and protecting living marine resources from poachers.¹³

In 1912, the Commission on Economy and Efficiency recommended to President Taft that the RCS be disestablished and that other government agencies absorb its duties. The commission estimated that the proposal would save \$1 million annually. They also recommended the Life-Saving Service's transfer to the Department of Commerce and Labor, to be combined with the Bureau of Lighthouses. Under this proposal, the Navy was to take on most of the Coast Guard's duties. The Secretary of the Navy (SecNav), George von L. Meyer was not opposed to the idea but expressed concern that these added responsibilities would interfere with the Navy's wartime duties. Captain Commandant Elsworth P. Bertholf presented some compelling counterarguments to the commission's efficiency claims. He contended that the absence of the RCS meant the Departments of Treasury, Justice, the Interior, Agriculture, and Commerce and Labor would need to establish maritime elements in order to meet their obligations. He also showed that the cost of operating and maintaining comparable Navy gunboats was more than 50% higher than that of a cutter.¹⁴

¹³ Evans, 105; Johnson, 7-9.

¹⁴ Johnson, 19-21.

President Taft recommended Congress pass legislation to enact the commission's recommendation, including the abolishment of the RCS. When Congress did not support the President's proposal, Secretary of the Treasury Franklin McVeagh and Bertholf saw an opportunity and sought to unite the RCS with the Lifesaving Service. This proposal was sent to Congress in 1913, and on 28 January, the Revenue-Cutter Service (RCS) with the U.S. Life-Saving Service merged to form the U.S. Coast Guard.¹⁵

Attempting to condense 125 years of Coast Guard history into a few pages omits many fascinating details and heroic stories that shaped the service. The purpose of this introduction is to give an idea of how the Coast Guard developed from a small seagoing service primarily concerned with enforcing revenue laws to one with a vast array of missions, including wartime duties. As it developed and took on additional duties, the service continued to provide wartime assistance to the Navy. The Coast Guard's contributions in World War I would continue this military tradition and have a tremendous impact on its development as an armed maritime service. The ensuing Rum War fought against seaborne liquor smugglers, continued to influence the evolution of the Coast Guard's operational capabilities.

The significance of this research is to better understand how the Coast Guard was prepared to integrate within the DoN prior to World War II. Understanding how this transition was made is useful in preparing the organization for future conflicts. The growing complexities of the maritime security environment and the Coast Guard's unique capabilities underscore its relevance in protecting U.S. interests throughout the world.

¹⁵ Johnson, 22, 32.

Today, more than ever, its readiness to carry out both its peacetime and wartime missions hinges on its ability to adapt its posture in the maritime environment. Before continuing to the next chapter, an examination of the available literature related to the development of the Coast Guard and its integration into larger naval operations and strategy is in order to show the depth of information related to this topic.

The Compact History of the United States Coast Guard (1966), by Howard Bloomfield, provides a concise history of the Coast Guard as the name implies. Beginning with the early days of the Revenue Marine and the original ten cutters, Bloomfield traces the organization's history through the early wars with France and England, the American Civil War and War with Spain, to World War I and World War II. The final chapter of his books gives an overview of the Coast Guard at the time of publication in 1966. This book provides an excellent general resource that provides many interesting anecdotes. Although the book provides some information on how the Coast Guard was transferred to the Navy and some excellent examples of how the service was utilized, there is little about the actual preparation to do so.¹⁶

Stephen Evan's book, *The United States Coast Guard, 1790-1915: A Definitive History* (1949), is an excellent Coast Guard historical reference and contains rich primary source material. Its scope is limited to the time up until the Revenue Cutter Service, and the U.S. Life-Saving Service was merged. Evan's purpose is to give readers a better understanding of the Coast Guard's predecessor agencies. There is no better source of information on the activities of the Revenue Cutters Service and the other agencies that

¹⁶ Howard Bloomfield, *The Compact History of the United States Coast Guard* (New York: Hawthorn Books, 1966), 167-182.

formed the Coast Guard in 1915, including those related to augmenting the Navy during war.¹⁷

Robert Johnson's *Guardians of the Sea: History of the United States Coast Guard, 1915 to the Present* (1987), is an excellent historical overview of the Coast Guard. Picking up where Stephen Evans left off, it covers the period from the merging of the Revenue Cutter Service and Life Saving Service to the time of its publication. It offers an in-depth look at Coast Guard history, including the political overtones that shaped the service throughout the years. In addition to its figures and primary source quotes, the author's notes were very helpful in identifying other critical sources of information. This book is one of the most comprehensive sources on Coast Guard history and was the most helpful of all the secondary sources to writing this thesis.¹⁸

John T. Kuehn is the authority on the General Board of the Navy and has authored two books on the subject. In his book, *America's First General Staff: A Short History of the Rise and Fall of the General Board of the Navy, 1900-1950*, (2017) Kuehn provides an in-depth look into the history of the General Board from its inception in March of 1900 through its many reorganizations, and finally its disestablishment in the 1950s. His primary argument is that "the General Board was America's first peacetime general staff."¹⁹ This vital work gives readers a look into the inner-workings of the General Board

¹⁷ Evans, vii.

¹⁸ Johnson, ix-x.

¹⁹ John Kuehn, *America's First General Staff, A Short History of the Rise and Fall of the General Board of the Navy, 1900-1950* (Annapolis: Naval Institute Press, 2017), 2.

and the vast influence on the Navy's modernization efforts and shipbuilding programs. Kuehn's book includes little on the subject of the Coast Guard, except to mention how some Coast Guard Officers participated in some of the General Board studies and hearings related to naval aviation. Regardless, it provides critical insights on the function of the General Board and the problems faced by the U.S. Navy during the interwar period, and the impact it had on the strategy and policy to address them.

John T. Kuehn's 2008 book, *Agents of Innovation: The General Board and the Design of the Fleet that Defeated the Japanese Navy*, is another excellent source of information regarding the General Board. This book focuses explicitly on the U.S. Navy General Board during the naval treaty period from 1920-1937. Kuehn argues that the General Board played an instrumental role in driving innovation in fleet design in light of the naval treaty. This book helps understand the complexities of the U.S. Navy and shipbuilding during the interwar period, as well as the nuances of the naval treaty system.

20

Alex Larzelere's *The Coast Guard in World War I: An Untold Story* (2003) gives readers an excellent account of the Coast Guard's involvement in World War I, including harrowing actions of Coast Guard heroic figures. Larzelere is a Coast Guard cutterman with extensive experience, including four command tours, and is a graduate of the Naval War College, National War College, and George Washington University. His book offers readers a comprehensive look into the early organization of the service after it was established by bringing together the Revenue-Cutter Service and the Lifesaving Service.

²⁰ John Kuehn, *Agents of Innovation: The General Board and the Design of the Fleet That Defeated the Japanese Navy* (Annapolis: Naval Institute Press, 2008), 1-2.

Additionally, he explains how the Coast Guard integrated into the Navy using mobilization orders. An interesting note, the author suggests that the Coast Guard integrated with the Navy during World War I to a greater degree than any other period. Perhaps Larzelere is referring to the degree of Command and Control since a strong argument could be made that the Coast Guard's integration with the Navy during World War II was more extensive based on the size of the force and the expanded mission sets.²¹ This book is an essential source of information on Coast Guard activities during World War I.

War Plan Orange (1991) by Edward Miller provides readers with an in-depth look into the Navy's strategic planning for war in the Pacific ahead of World War II. Miller explains how War Plan Orange and the pre-war planning efforts were essential to the Pacific campaign and the eventual defeat of Japan. This book helped to understand the Navy's planning process throughout the interwar period. While Miller does not cover the Coast Guard, his book is important to understanding the development of war plans during the interwar period.²²

Rum War at Sea (1964) by Malcolm Willoughby is a great contribution to Coast Guard history that covers the prohibition era from 1920-1935. His work captures a plethora of information related to the Coast Guard's efforts interdicting liquor smugglers. The first chapter covers the development of the temperance movement in the United States, culminating with the passage of the Volstead Act and prohibition on 1 January

²¹ Larzelere, 23-24.

²² Edward Miller, *War Plan Orange* (Annapolis: Naval Institute Press, 1991) .1

1920. The ensuing chapters detail smuggling operations and the Coast Guard's work to subvert them along the Atlantic, Pacific, and Gulf Coasts, as well as the Great Lakes. One chapter focuses on the emergence of intelligence operations and another to the different tactics used by smugglers. In the final chapter, he summarizes how the counter-smuggling operations impacted the service, pointing out that it led to an expansion in personnel and equipment, better communications, development of intelligence procedures, and overall experience for coastguardsmen.²³ This book provides an understanding of the Coast Guard's development during the interwar period and shows the innovative nature of the service during the period.

The following chapter will cover the Coast Guard's role in World War I. Chapter 3 will analyze the service's development during the Prohibition Era and the interwar period. The influence of the General Board of the Navy on Coast Guard cutter design and the Army-Navy War Plan's proposed integration of the service during wartime operations will be examined in Chapters 4 and 5, respectively. Chapter 6 will conclude by examining the relevance and limitations of the research, as well as areas for future studies.

²³ Malcolm Willoughby, *Rum War at Sea* (Washington D.C.: Government Printing Office, 1964), 163.

CHAPTER 2

THE COAST GUARD IN THE GREAT WAR

On January 28th, 1915, President Woodrow Wilson signed the Coast Guard Act into Law creating the U.S. Coast Guard and marking an important milestone in the organization's history. Finally, two government agencies responsible for protecting American seafarers and enforcing the rule of law throughout the U.S. sphere of influence had been brought together as one organization. The official title of the bill, *An act to create the Coast Guard by combining therein the existing Life-Saving Service and the Revenue-Cutter Service*, describes this merger in plain language. It specified that the U.S. Coast Guard "shall constitute a part of the military forces of the United States and which shall operate under the Treasury Department in time of peace and operate as a part of the Navy, subject to the orders of the SecNav, in time of war or when the President shall so direct."²⁴

The U.S. Coast Guard's formal codification as a military service and the provision that it be reorganized in the DoN during war were important developments for the service but were not novel concepts. As discussed in the previous chapter, the Coast Guard played an active role in nearly every American conflict since the establishment of the Revenue Marine in 1790. At the time the Coast Guard Act was signed, Europe was

²⁴ U.S. Coast Guard Act of 1915, Public Law 293, 63rd Cong., 3rd sess. (January 20, 1915), .1-3.

already at war.²⁵ Although the Coast Guard was a relatively small force, the provision to transfer it to the Navy was an easy and rapid way to surge naval forces.²⁶

In March of 1915, only a few short months after the passing of the Coast Guard Act, an effort was made to establish how the Coast Guard would best function as part of the Navy. Captain William Bullard, U.S. Navy, collaborated with the Coast Guard Commandant Captain Ellsworth Bertholf and each submitted a report to their respective secretaries. These reports pointed out that most of the cutters were too slow and lacked the endurance for offshore patrols. Their reports also identified deficiencies in infantry drill and signaling, to which they suggested remedying through increased interservice cooperation. Some additional recommendations to increase interoperability called for junior officer and ship exchanges. The extent to which any of these recommendations were put into practice was limited, but the Coast Guard did prepare for its wartime missions by developing a mobilization plan, participating in naval exercises, and providing naval security operations support.²⁷ Additionally, recruits at the Coast Guard Academy in New London were preparing for the fleet through infantry drill, manual of arms, signaling, and 3-pounder gun training.²⁸

²⁵ H. Kaplan and James Hunt, *This is the Coast Guard* (Cambridge: Cornell Maritime Press, 1972), 3.

²⁶ Larzelere, 16. The Coast Guard had 44 Cutters available for transfer and its personnel numbered 5,000 enlisted men and officers compared with the Navy's roughly 69,000 at the beginning in 1917.

²⁷ Johnson, 44-45.

²⁸ Hamilton Cochran, "Hunting the Hun with the Coast Guard," unpublished manuscript, 1917, 2, accessed 13 April 2020, https://media.defense.gov/2017/Aug/07/2001789092/-1/-1/0/1919_WW1_COCHRAN-HUNTINGHUN.PDF.

On 6 April 1917, after Congress approved President Wilson's request for a declaration of war, SecNav Josephus Daniels issued a mobilization order to the U.S. Navy. This order also meant, for the first time in the organization's history, the transfer of the entire Coast Guard from the Treasury Department to the DoN.²⁹ The Joint Army-Navy War Plans, discussed in detail in Chapter 5, contain pertinent information related to the Coast Guard's mobilization and organization into the Navy. The Coast Guard's Mobilization Plan; however, provides much greater detail into the administrative aspects of the mobilization process.

The Mobilization Plan dated 22 March 1917 was a pamphlet that included procedures for transfer the Coast Guard to the Navy during peacetime and when war was declared. It included pertinent information related to command, control, administration and logistics. There were also instructions for demobilization and the resumption of operations under the Treasury Department. The plan specified that the order to transfer be disseminated either through a telegraphic message or as an individual message to Coast Guard division commanders and district superintendents, who then relayed the message to units in their area of responsibility.³⁰

Under the Mobilization Plan, many of the administrative functions remained under Coast Guard control. Coast Guard Headquarters retained administrative control of Coast Guard units, but the Navy district and section commanders had operational and

²⁹ Larzelere, 7.

³⁰ U.S. Treasury Department, *Coast Guard, Mobilization of the U.S. Coast Guard When Required to Operate as Part of the Navy* (Washington, DC: U.S. Government Printing Office, 1917), 3-12. Mobilization Plan No. 1 was for transfer to the Navy when war was declared, and Mobilization Plan No. 2 was for transfer during peacetime.

tactical control designated units assigned to their commands. This last point was accentuated in the order with the following statement, “Coast Guard cutters assigned to naval districts or sections thereof.—Connection with Coast Guard divisions is severed.”³¹

The larger cruising cutters were assigned to the naval districts, while the smaller harbor cutters and stations were assigned to sections within the naval districts. Cruising cutters refer to larger ocean-going vessels that could put to sea for long patrols. Harbor cutters were smaller, more maneuverable vessels with less seakeeping and endurance. Command and control of the boat stations was not as straightforward. The superintendents of Coast Guard divisions continued to supervise the station, except for operations to support the naval districts. In total, 47 cutters and 272 boat stations were transferred to the Navy’s control.³²

The Navy was responsible for providing fuel, oil, supplies, and repairs for Coast Guard units. Payroll, food and personnel actions, such as enlistments and discharges, remained solely Coast Guard functions. Minor disciplinary issues were handled by the Coast Guard. The exception to this was anything that required administrative action by headquarters, which was forwarded through the Commandant of the respective naval

³¹ *Mobilization of the U.S. Coast Guard When Required to Operate as Part of the Navy*, 5; Larzelere, 11.

³² Bloomfield, 130; Kaplan and Hunt, 44; Larzelere, Appendices A, E.; Bloomfield, Kaplan and James suggest only 15 cutters being transferred to the Navy. Bloomfield, Kaplan and James both suggest only 15 cutters being transferred to the Navy. They are likely only referring to cruising cutters that patrolled in European waters. Larzelere’s suggests that all of the cutters were transferred, even if they were not employed overseas.

district. The Mobilization Order suspended Coast Guard courts, and serious personnel issues would be adjudicated in Navy courts instead.³³

When the transfer occurred, many Coast Guard units continued to operate much the same as they did during peacetime, but their priorities shifted to supporting naval operations. Many staff officers from Coast Guard headquarters were reassigned to Navy positions. This left a small staff at headquarters to attend to the day-to-day operations of the life-saving stations and personnel administration.³⁴ Since the Coast Guard was operating wholly in the DoN for the first time, reassigning Coast Guard officers to the Navy positions provided an extra level of integration between the two services.

Coast Guard officers and personnel were assigned to various navy ships and staff positions; likewise, Navy personnel were assigned to Coast Guard cutters. Coast Guard officers filled positions as navigators and engineers. Coast Guard officers commanded 33 Navy ships and 25 troop transports during the war, and some even commanded naval air stations.³⁵ Although the Coast Guard was a small service, its relative contributions were substantial. The ability of coast guardsmen to quickly shift from conducting peacetime rescue and law enforcement missions to wartime duties reflects both the organizational and individual servicemen's versatility.

Coast Guard cutters had excellent sea keeping capability and were designed primarily for law enforcement and search and rescue missions. To prepare them for

³³ *Mobilization of the U.S. Coast Guard When Required to Operate as Part of the Navy*, 4-5.

³⁴ Larzelere, 10.

³⁵ *Ibid.*, 24, Appendix B.

combat, they would require additional armament, fire control systems, and radio equipment. The cutters *Algonquin*, *Manning*, *Ossipee*, *Seneca*, *Tampa* and *Yamacraw* were quickly fitted with additional weaponry, including depth charges. The vessels then sailed for Gibraltar where they conducted escort duties for convoys sailing between the United Kingdom and the Mediterranean Sea.³⁶ A photograph of cutter *Seneca* is shown in Figure 1.

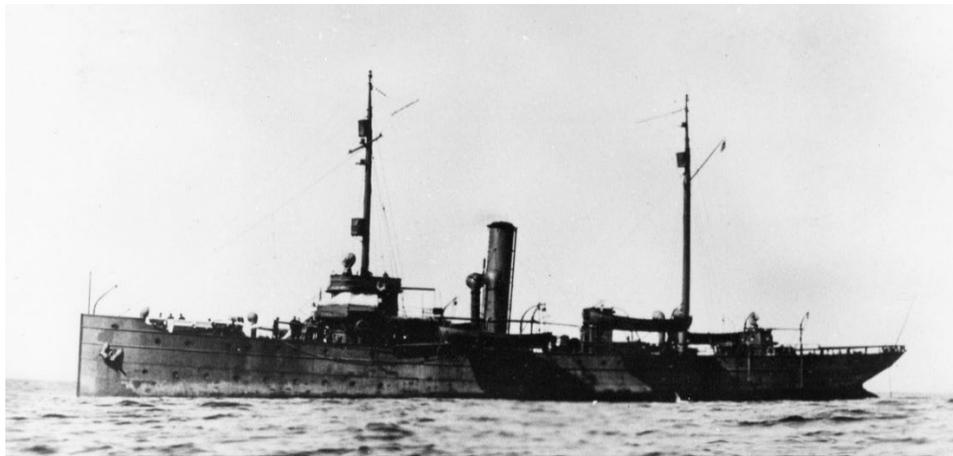


Figure 1. Cutter *Seneca*

Source: U.S. Coast Guard Historian’s Office. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

³⁶ Bloomfield, 131; Cochran, 19; Johnson, 46; Larzelere, 40-41, 59; William Wheeler, “Reminiscences of World War Convoy Work,” U.S. Naval Institute *Proceedings* 55, no. 5 (May 1929): 387, accessed 15 April 2020, <https://www.usni.org/magazines/proceedings/1929/may/reminiscences-world-war-convoy-work> . Wheeler explains that the six cutters that deployed to Gibraltar were originally outfitted with four 3-inch guns, but later in 1918 these were replaced with 4-inch 50. Mounts, greatly increasing the effectiveness of the batteries. Wheeler suggests that the Y-guns were added to the cutters at the same time, whereas Bloomfield implies that the Y-guns were added before the cutters sailed to Europe. Cochran’s account of engaging a U-boat in the spring of 1918 said that “depth charges were dropped over the side,” meaning at least *Algonquin* did not received Y-guns until later.

In addition to new armaments and equipment, the cutters received additional crewmembers. The wartime compliment increased crew size by one-third. Additional crewmembers allowed the cutters to maintain a higher state of readiness during the war. Typical wartime steaming meant that crews were on a port and starboard watch cycle, meaning they would stand watch for four hours, rest for four hours, and then report for their next watch. The crews were comprised of a cadre of experienced sailors and augmented by new recruits.³⁷

After the cutters were outfitted for combat, the crews needed to familiarize themselves with the new weapons. In order to prepare for upcoming operations, gunnery exercises were held during sea trials. The transit across the Atlantic to Gibraltar in the summer of 1917 provided additional training time, but there were also other duties to attend to. During the transit *Algonquin* and *Tampa* were tasked with towing several smaller minesweeping and sub-chasing vessels—this proved to be a troublesome undertaking. While towing the USS *Edwards* across the Atlantic, the *Algonquin* parted the towing hawser several times due to heavy seas. Eventually, the *Edwards* began taking on water and they were forced to leave the vessel in Halifax, Nova Scotia. *Tampa* faced similar challenges while towing five French sub-chasers but completed the transit with vessels intact.³⁸

By October of 1917, all six cutters had reached Gibraltar and formed Patrol Squadron Two of the Atlantic Fleet Patrol Forces, Sixth Division. Due to their limited

³⁷ Larzelere, 41, 61, 64, 67-68.

³⁸ Cochran, 4; Larzelere, 41-44.

speed, the cutters were best suited for convoy escort duties. To protect against the German submarine threat, Great Britain adopted a convoy system where merchant ships steamed together in a close formation, escorted by destroyers, patrol boats, and cutters. These convoys provided essential supplies to the ground forces in Europe. For the first few weeks, the cutters were assigned to the Gibraltar Danger Zone—the area near the entrances of the Strait of Gibraltar where submarines could easily find and attack convoys. Later, they were re-assigned almost exclusively as open ocean escorts. In this role, they remained with the convoy throughout the entire voyage. Destroyers and patrol boats provided additional protection when the convoys were near the British Isles or the Strait of Gibraltar and the submarine threat was higher. The cutters were tasked to ensure the convoy proceeded in an orderly fashion and provide a communication link with the British Admiralty.³⁹

The slow speed of the cutters and their relatively light armament may have driven the decision to reassign them as ocean escorts and concentrate the more capable destroyers and patrol boats in the high threat areas. Crew proficiency may have also played a role in this decision as well. Although the coast guardsmen performed admirably throughout the war, there was limited time to prepare for their wartime duties. Despite their lack of speed, the cutters' endurance and sea keeping suited them for the prolonged open ocean escort missions. Speed, endurance, and armament of cutters were principal topics discussed later by the General Board of the Navy and the Coast Guard's lead ship designer, Constructor Frederick E. Hunnewell, during the interwar period. The

³⁹ Cochran, 6; Johnson, 52-53; Wheeler, 385.

performance of the six cutters deployed to Europe shaped the discussions that drove new cutter designs.

Escort missions were droning affairs, at times the convoys steamed as slow as five nautical miles per hour (knots). The merchant ships were limited in maneuverability and night transits were complicated by steaming without navigation lights in order to prevent detection by enemy submarines. In order to be unpredictable and avoid meeting other convoys transiting in the opposite direction, convoy routes followed an irregular path that added distance (“zigzagging”). The position of the merchant ships was so close that collisions were frequent occurrences. As a standard procedure, escorts positioned themselves 600-800 yards ahead of the convoy and executed a zigzagging course. Escorts would regularly break from position at the head of the convoy to round up wayward ships and get them back in formation.⁴⁰ There is little in the way of training that could have prepared coast guardsmen, or navy personnel, for the challenges of escort duties. Best practices could only be developed through mission execution. The seamanship skills that the Coast Guard personnel brought to the theater were more valuable than the cutters themselves.

The crew of the *Seneca* honed their warfighting skills while carrying out escort duties by trailing a weighted boathook with a tin can on a wire to simulate an enemy submarine periscope. The cutter would then maneuver to provide gun crews with a challenging target to engage. There were other opportunities to conduct gunnery

⁴⁰ Cochran, 6; Johnson, 52-53; Wheeler, 385-386.

exercises off the coast of Gibraltar.⁴¹ It seems little has changed in how Coast Guard personnel practice their gunnery skills. Like today, these type of ad hoc training opportunities were interspersed as operations permit. In this case, gunnery training would take precedence over the numerous other day-to-day activities associated with operating a cutter.

The tedium of the escort operations was routinely interrupted by violent attacks to both escort vessels and the merchant ships. The *Ossipee* and the *Seneca* each reported being the targets of torpedo fire on several occasions. In response to a threat, cutters set General Quarters and employed guns and depth charges against enemy submarines. During the war *Seneca* escorted 30 convoys consisting of 580 merchant ships. The cutter set General Quarters on 21 occasions and employed one hundred 300-pound depth charges.⁴² The effectiveness of these counterattacks was difficult to ascertain, but sighting oil on the surface of the water was a good indication that their attacks were successful.⁴³

When a convoy ship was attacked, escorts launched rescue missions to save the stricken crewmen. Some of the most daring rescues were led by *Seneca*'s Navigation Officer, Lieutenant Fletcher Brown. In three separate incidents in 1918, Fletcher and the crew of the *Seneca* rescued 128 crewmembers from the merchant vessels *Cowslip*,

⁴¹ Wheeler, 387.

⁴² General Quarters refers to a higher state of readiness for the ship where crewmembers "man battle stations."

⁴³ Johnson, 53; Larzelere, 64-66; Wheeler, 388, 390. Johnston says both the *Ossipee* and *Seneca* were subject to torpedo fire 5 times each, but Wheeler's account states that *Seneca* was attacked 3-4 times.

Queen, and Wellington. The *Wellington* rescue on 13 September 1918 was particularly challenging. After the merchant ship was struck by a torpedo on the starboard bow, the *Seneca* managed to rescue all surviving crewmembers were saved. Later efforts to salvage the ship led to the loss of four merchantmen and 11 *Seneca* crewmembers after the beleaguered vessel was caught in a gale.⁴⁴

The *Wellington* salvage attempt was soon overshadowed by an even more tragic incident two weeks later. 41 days before the armistice that ended World War I, the cutter *Tampa*, shown below in Figure 2, was torpedoed with the loss of all 131 souls onboard. This included 111 coastguardsmen, four U.S. Navy crewmembers and sixteen British passengers. The *Tampa* and her crew had an excellent war record. Just before her last escort mission the Commander of the Atlantic Fleet Patrol Force presented an award to the crew. During the eight months she was attached to the squadron, *Tampa* escorted 18 convoys totaling 350 ships, and of these only two were lost.⁴⁵

⁴⁴ Larzelere, 26-32; Wheeler, 390-391. Larzelere indicates that nine *Wellington* crewmembers assisted with the salvage efforts and perished, but Wheeler's account of the incident says there were only eight. U.S. Navy gunners mate Paul Marvelle was one of the *Seneca* crewmembers that perished.

⁴⁵ Johnson, 49; Larzelere, 45-49.

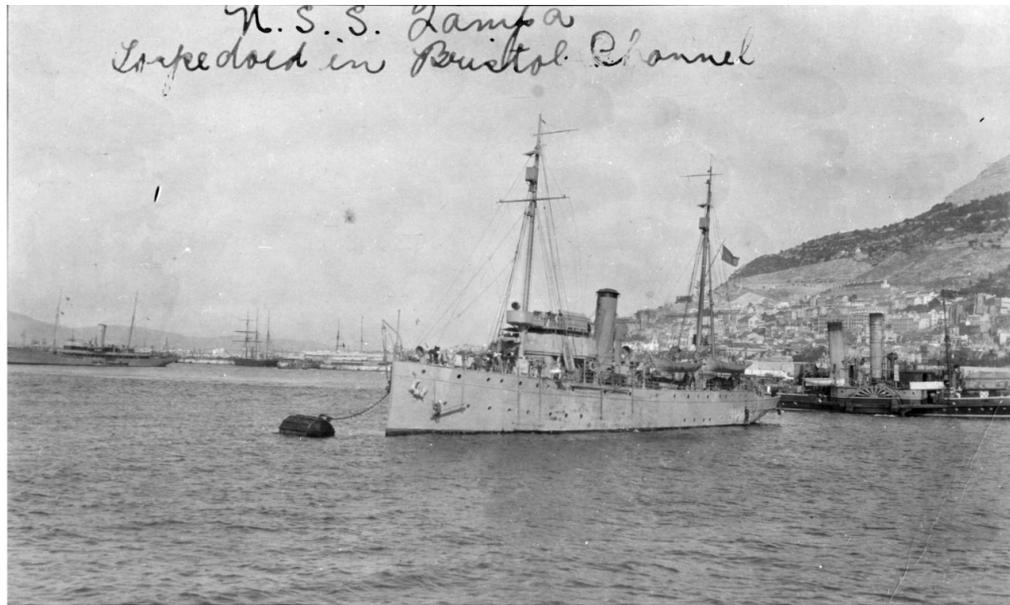


Figure 2. Cutter *Tampa* Moored in the Strait of Gibraltar

Source: U.S. Coast Guard Historians Office, *USS Tampa in Gibraltar*. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

The Coast Guard did not engage in any ground operations during World War I, with one notable exception. In June of 1918, the *Algonquin* crew was ordered to get underway for an unscheduled mission. They proceeded from Gibraltar to an anchorage near Tangier, Morocco. After receiving a French Naval officer, they weighed anchor and steamed to Cape St. Vincent. The crew of the *Algonquin*, armed with revolvers, then embarked on a shore expedition to locate a German clandestine radio station. After a lengthy march, the shore party eventually came upon a small shack that had been abandoned in haste.⁴⁶ While nothing came of this mission, it serves as an interesting

⁴⁶ Cochran, 10-12; Larzelere, 69-70.

example that demonstrates the versatility of the *Algonquin*'s crew to execute a mission outside of their normal duties.

Coast guardsmen also proved themselves during the war serving aboard Navy ships. In total, 24 officers were assigned as commanding officers of gunboats, patrol craft, converted yachts, and a supply ship. Coast Guard officers filled vacancies in the Navy's ranks in order to meet the growing demand for experienced seagoing officers. In turn, Coast Guard warrant and naval reserve officers backfilled vacancies of the Coast Guard officers that were reassigned to Navy ships. Many of the Navy ships that Coast Guard officers were assigned to were larger than the service's own cruising cutters.⁴⁷

In their command duties aboard Navy ships, Coast Guard officers served with distinction. One notable example is that of Captain Raymond Jack who commanded the converted yacht *Cythera*. While carrying out an escort mission from Gibraltar and Bizerte on 3 October 1918, the convoy was attacked in two separate incidents. The merchant ship *St. Luc* was struck by a torpedo during the first attack, and only a few crewmembers survived. During the second attack, the merchant ship *Ariel* was struck. Fortunately, the *Cythera* was able to rescue all 35 crewmembers *Ariel*. In both instances, Captain Jack skillfully maneuvered the *Cythera* to counterattack the enemy submarines with depth charges.⁴⁸ Jack's actions during these attacks demonstrate the valuable role Coast Guard officers had in command of Navy ships.

⁴⁷ Larzelere, 106, 111.

⁴⁸ *Ibid.*, 114-115.

The use of Coast Guard officers aboard Navy ships was problematic because it left vacancies aboard cutters that were filled by less experienced Naval Reserve officers. Coast Guard officers' time in service was much greater than Navy officers of equivalent rank. The Coast Guard used military ranks that differed from the Army and Navy but were based on the same pay grades. Promotions were largely based on time in service. Due to the rapid expansion of the Navy, promotions were rapid and temporary promotions were widespread. The rapid promotions did not initially apply to the Coast Guard, until the passing of the Naval Appropriations Act of 1918. Coast Guard officers were often in subordinate billets under younger and less experienced Navy officers. Navy officers serving on ships received 10 percent more pay, meaning that Coast Guard officers of the comparable rank and the same duties were paid less.⁴⁹

Enlisted ranks in the Coast Guard differed from the Navy and was a source of tension as well. Most of the ratings were like those in the Navy, except for surfman⁵⁰. During the war, there were only three petty officer ranks in the Coast Guard and no chief petty officers. Often, Coast Guard petty officers were more experienced and given higher responsibilities than their Navy counterparts. Senior first-class petty officers were equivalent to Navy chief petty officers in terms of experience, but like Coast Guard officers they worked for less pay.⁵¹

⁴⁹ Johnson, 46; Larzelere, 16-19.

⁵⁰ Surfman were members of the Life Saving Service skilled at handling small boats in surf zones. The term surfman is still in use in the Coast Guard and, like the days of the Life Saving Service, it refers to small boat coxswains who are qualified to operate in surf zones. This is the most demanding certification for small boat coxswains.

⁵¹ Larzelere, 19-20.

Perhaps one of the biggest personnel challenges was the retention of its sea-going workforce. Many of foreign-born enlisted men left the service when war broke out, resulting in significant personnel shortages. In 1917 recruiting offices were established and new enlistments were routinely extended. Before the war, recruits received on-the-job-training, but the shortage of experienced personnel led to the establishment of a recruit training facility at the Coast Guard Academy in New London, Connecticut. Here academy cadets assisted in training recruits in drill and boat handling. Eventually, recruiting became much easier with the enactment of the draft and recruiters had more applicants than they could process.⁵²

During World War I, Coast Guard aviation was just beginning to take off. In 1917, Coast Guard Aviator No. 1, Lieutenant Elmer Stone, and Lieutenant Donahue were briefly assigned to the armored cruiser *Huntington* to test shipboard aviation and balloon deployment capabilities, but the tests were never completed after an accident with one of the balloons. On 14 March 1918 the Naval Air Station in Ile Tudy, France, was established under the command of U.S. Coast Guard Lieutenant Charles Sugden. The 21 aircraft assigned to the station provided air escorts to convoys, four of which were credited with carrying out successful submarine attacks. Coast Guard officers commanded several Naval Air Stations stateside as well throughout the war.⁵³ Stone, Donahue, and Sugden were all part of Coast Guard Aviation Group No. 1 photographed in Figure 3 below.

⁵² Larzelere, 20-22.

⁵³ Ibid., 133-137, 143-144, 146-150.



Figure 3. First Coast Guard Aviation Group

Source: U.S. Coast Guard Historian's Office, *First Aviation Class WWI*, 1917. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

At home, coast guardsmen continued to carry out their normal search and rescue duties. Two rescue cases were directly related to war hostilities. On 21 July 1918, the tugboat *Perth Amboy* and her four barges were attacked by a German submarine near Cape Cod. The crew quickly abandoned the boat and the crew from Station No. 40, East Orleans, quickly launched a surfboat to assist. When they arrived on scene, the German submarine ceased its attack and submerged. The tugboat crewman sustained only minor injuries and were returned to their vessel. Meanwhile, a HS1L flying boat was launched from a nearby Air Station to locate the submarine. Once it was relocated, the flying boat

tried to destroy it by dropping bombs. This attack, however, was unsuccessful due to bombs that failed to detonate on target. One of the most storied rescues carried out by a small boat station during the war, was by Station No. 179 at Chicamacomico, North Carolina. At approximately 4:40 PM on 16 August 1918, the British tanker *Mirlo* was struck by a torpedo and station keeper John Midgett launched a daring rescue effort that saved all 42 crewmembers of the tanker vessel. Keeper Midgett and the surfboat crew all received Gold Life-Saving Medals for their actions.⁵⁴

The Coast Guard took on the important port security duties during the war. These duties entailed patrolling harbors and wharfs and protecting them from saboteurs, which was particularly important in the ports with munition depots. On 31 July 1916, an explosion at a shipping facility on Black Tom's Island, New Jersey prompted the enactment of the Espionage Act in 1917. Although there was no proof that the explosion was caused by nefarious activity, the suspicion alone was cause enough for the Coast Guard to take on the role of protecting vital ports. The key ports of concern were New York, Sault Ste. Marie, Hampton Roads, and Philadelphia, to which Coast Guard officers were assigned to manage port security operations. At this point the Coast Guard had

⁵⁴ Johnson, 51; Larzelere, 133-137,151-154. After struggling to get through the surf and closing within two miles of burning *Mirlo*, Midgett and his crew spotted one of the tankers small boats with 17 crewmen, including the ship's master. The master told Midgett there were two other boats with survivors onboard. Midgett directed them to proceed toward shore but not to attempt to navigate the surf zone. While approaching the *Mirlo*, Midgett and his crew navigated the flames and the wreckage and eventually located an overturned boat with six crewmembers clinging to it. After rescuing these men and searching for nearby survivors, the surfboat crew set out to locate the second boat. Eventually, the second boat was found with 19 crewmembers onboard. Midgett towed the vessel back toward the station, where he located the other small boat with the *Mirlo*'s master onboard. Midgett and the surfboat crew anchored the small boats just outside the surf zone and then made four trips to ferry the crewman to the beach.

already been transferred to the Navy, but these officers reported directly to the Secretary of Treasury William McAdoo for matters related to port security.⁵⁵

Another explosion at the T.A. Gillespie and Company facility in Morgan City, New Jersey on 4 October 1918 led to a heroic response by Coast Guard personnel. The shell loading plant was one of the largest in the world, and when a fire was sighted near the facility that evening it was cause for serious concern. Not long after, the first explosion ripped through the surrounding area. Approximately 200 men and several harbor cutters quickly responded to the scene. While explosions were emanating from the plant, coast guardsmen quickly began removing the dead and wounded from the facility and clearing nearby houses. They remained on scene throughout the night coordinating the evacuation. On 7 October 1918 the fire re-flashed in the plant and several Coastguardsmen entered the plant to move nine rail cars laden with TNT. 12 coast guardsmen were awarded the Navy Cross for their gallant efforts.⁵⁶

After the Armistice was signed on 11 November 1918, it was expected that the Coast Guard would resume its normal duties under the Treasury Department. Congressman and some Navy officials had a different idea and proposed that the service be absorbed by the Navy. The Navy recognized the value of the Coast Guard and the value its personnel brought to its ranks. Many Coast Guard officers were in favor of staying in the Navy, as it meant they would be able to retain their temporary promotions and have better career opportunities. SecNav Josephus Daniels was in favor of the Coast

⁵⁵ Johnson, 45; Larzelere, 178-179.

⁵⁶ Larzelere, 170-178.

Guard's permanent transfer to the Navy; but, Secretary of the Treasury Carter Glass was understandably against it.⁵⁷

Legislation was introduced by Representative Guy Campbell of Pennsylvania on 14 December 1918 for the Coast Guard to remain under to the DoN. Under the proposal, the Coast Guard would not exist as a separate service, like the U.S. Marine Corps, but instead would be completely absorbed into the Navy. One troubling provision aimed to reduce all Coast Guard surfmen to non-rated seaman. There was also consternation related to physical requirements for re-enlisting that would have potentially denied seasoned petty officers from serving through retirement.⁵⁸

During testimony to Congress on 13 January 1919, Captain Frank Austin indicated that the legislation was favored by Coast Guard officers, the Navy, and civilian public servants. According to him, officers had better opportunities and potential for promotion in the Navy. He suggested that 70% of officers would prefer to be transferred to the Navy. Captain Paul Harrison also testified in favor of the bill and claimed that the proposal would save half a million dollars annually. He explained that the duties of the Coast Guard could be absorbed by the Navy, which had the authority to carry them out, while some of the others could be carried out by other agencies. Admiral J.S. McKean argued that the Coast Guard was a military organization and therefore belonged in the DoN. He posited that efficiencies would be gained by closing facilities and not having to

⁵⁷ Larzelere, 240-241.

⁵⁸ Ibid., 240-241.

man two separate organizations and was confident that the Navy could absorb all Coast Guard's mission.⁵⁹

Representative Joseph Walsh was opposed to the proposal and brought attention to the Coast Guard's 125-year service to the Nation. He contended that the officers who supported the move to the Navy may not represent the majority. Congressman Esch attempted to refute the efficiency argument and referenced a study comparing vessels of the Revenue-Cutter Service and similar Navy Vessels. The study showed that the Navy's operating and maintenance cost were 56% higher per vessel than the Coast Guard. The proposed transfer had significant implications on changing the congressional committee system, specifically shifting authorities from the Committee on Interstate and Foreign Commerce to the Naval Affairs Committee.⁶⁰

During a second hearing on 6 February 1919, a letter was read from SecNav Josephus Daniels. Up until this point, Secretary Daniels had remained silent on the issue. In the letter, Daniels argued that transferring the Coast Guard back to the Treasury Department would undo the progress made during the war to integrate the Coast Guard into the Navy. During the hearing, Coast Guard Commandant Elsworth Bertholf took a strong stand against the efficiency argument by citing how the SecNav and several prominent Navy officers had lauded the Coast Guard's organizational efficiency. He went on to show how the increase in officer salaries for those would retain their higher ranks

⁵⁹ Larzelere, 240-243, 246.

⁶⁰ Ibid., 240-244, 248.

and the additional funding needed to carry out peacetime missions would offset any savings.⁶¹

On 28 August 1919, with the passing of Executive Order 3160, the Coast Guard resumed its normal operations under the Treasury Department. Another bill was proposed to transfer the Coast Guard to the Navy in May 1920, but it was rejected. During this time, there was a great deal of discontent amongst the enlisted men and officers due to pay reductions and many left the service. This exodus left the Coast Guard shorthanded, but the downturn would be temporary. The National Prohibition Act would bring new resources and a new set of challenges to the Coast Guard.⁶²

There are several important takeaways from the Coast Guard's role in World War I. First, transferring the Coast Guard to the Navy provided a rapid means to augment the Navy's fleet. This would become particularly important later during the interwar period when the Naval Treaties limited the size and types of warships that could be built.⁶³ Although Coast Guard cutters were slow, they were effective for convoy escorts, anti-submarine warfare, and security duties. Cutters needed additional armament, equipment and personnel to carry out their wartime duties.

Second, the skill and experience of Coast Guard personnel was the service's most valuable wartime asset. Although their warfighting skills may have been limited, their seamanship and adaptability made coast guardsmen particularly suitable for wartime

⁶¹ Larzelere, 240, 248-252.

⁶² Ibid., 255-256.

⁶³ Johnson, 144.

duties. Coast Guard personnel were given limited training prior to their transfer to the Navy. Additional training specific to their wartime missions could have increased their effectiveness.

Third, there were enough differences in the Navy and Coast Guard's force structure to cause friction. This was later resolved, but this could have been avoided entirely had legislation been passed to align officer and enlisted pay and allowed for the temporary promotion of Coast Guard Officers. Finally, the debate over what to do with the Coast Guard at the conclusion of the war shows how its exemplary service nearly resulted in its own undoing.

For such a small service, the Coast Guard had big impact on wartime operations during World War I. There is no doubt to the value added by coast guardsmen during the war. The Coast Guard's integration with the Navy and the roles it assumed during the war, shaped how it be employed in World War II. Although much of the individual experience of the men who served in World War I would not carryover, the institutional knowledge and additional experience gained during the prohibition era would continue to prepare the service for its wartime mission.

CHAPTER 3

PROHIBITION AND THE INTERWAR PERIOD

After surviving the Great War and the threat of being absorbed entirely by the Navy, the Coast Guard faced a new challenge during the interwar period, one that would prove daunting. The ratification of the 18th Amendment on 16 January 1919 and the passing of the Volstead Act on 28 October 1919 signaled the beginning of a new era for the Coast Guard. The service's primary missions at the time of prohibition included: saving life and property, preventing maritime smuggling and protecting revenue, and maintaining military readiness. When the prohibition of alcohol went into effect on 17 January 1920, counter-smuggling operations would quickly become the Coast Guard's primary focus and lead to a significant expansion of the service.⁶⁴

The roots of prohibition evolved from the early 19th century temperance movements. The growing public concern of the adverse effects of alcohol on society led to several states passing laws restricting the alcohol sales. Kansas, Maine, Rhode Island, and several other states amended their constitutions to outlaw liquor. These laws were poorly enforced, and many were eventually repealed. The Prohibition Party was established in 1876, and several constitutional amendments for the prohibition were introduced. These early attempts were unsuccessful, but dedicated political efforts eventually led to the ratification of the 18th Amendment and the passing of the Volstead Act as way to enforce federal prohibition laws.⁶⁵

⁶⁴ Willoughby, *Rum War at Sea*, 11, 21.

⁶⁵ *Ibid.*, 3-9.

Prohibition did nothing to quench American's thirst for liquor. Alcohol continued to be manufactured in the U.S., albeit illegally, and smuggling routes emerged over the sea and land borders. Alcohol smuggled across the border was typically of higher quality than that illegally made in the U.S. Prohibition made the manufacturing, distribution, and sale of alcohol extremely lucrative. Prohibition laws were widely violated, soon the courts were inundated with cases, and the number of people incarcerated in Federal prisons doubled in just two years. Initially, the number of law enforcement personnel was inadequate. Customs and prohibition agents were initially the primary agencies responsible for enforcing prohibition laws, but the flow of alcohol was too much. Eventually, the Coast Guard became the primary agency responsible for countering at-sea smuggling activities.⁶⁶

A sophisticated smuggling network quickly emerged, which eventually came under the control of organized criminal organizations. Great Britain began exporting liquor to its colonies in large quantities, which then was smuggled into the U.S. Imports of spirits to the Bahamas soared from over 500,000 gallons in 1921 to 2.5 million gallons in 1922. Belize, and the French Islands of Saint Pierre and Miquelon, also supplied smugglers. Liquor was also smuggled from Cuba and other Caribbean Islands to the southeast U.S., from Canada to the Great Lakes region, and from Mexico to the Pacific and the Gulf coasts. The growing influx of liquor was staggering. By 1924, it was estimated that the value of liquor being smuggled into the U.S. was \$500 million.⁶⁷

⁶⁶ Willoughby, *Rum War at Sea*, 11-13, 18-19.

⁶⁷ Eric Ensign, *Intelligence in the Rum War at Sea, 1920-1933* (Washington, DC: Joint Military Intelligence College, 2001), 2-4.

Most of the smuggling from the sea was carried out in two stages. First, large ships would transport alcohol in bulk from foreign ports to a location outside the three-mile limit of land where they would anchor. U.S. law did not apply outside of the three-mile limit, so these bulk vessels, or motherships, could operate with impunity. All types of ships were used for transporting bulk liquor, but fishing schooners were preferred because of their seakeeping ability. The largest concentration of motherships was near the coasts of New York, New Jersey, and Boston, in what would become known as Rum Row. The next stage consisted of using faster small boats, known as contact boats that would purchase the alcohol from motherships and transport it to shore for distribution. Eventually, as criminal organizations took over the smuggling trade and the enforcement zone was pushed further offshore, larger motherships and faster small boats were used.⁶⁸

Initially the Coast Guard did not have the resources or personnel to enforce prohibition laws at sea. Following World War I, many of the coast guardsmen who volunteered to serve sought immediate discharge. To complicate retention and recruitment, pay was reverted to 1908 levels. In the early 1920s, Coast Guard enlisted personnel numbered around 3,500 or around 60% of authorized force strength. The number of officer corps was not much better at the end of the war, numbering only 205 or about 75% of its authorized strength. There was also a shortage of ships available to the Coast Guard. While there was an effort made to recapitalize Coast Guard cutters after World War I, the ships available were too slow and too few for prohibition enforcement.

⁶⁸ Johnson, 85; Willoughby, *Rum War at Sea*, 14-18, 32, 42.

Coast Guard aviation, furthermore, was gutted entirely in 1922 when the six Curtis flying boats the service operated on loan from the Navy were returned.⁶⁹

The Coast Guard's initial efforts to curb illegal smuggling of alcohol were modest at best. Due to its limited resources and other missions, the Coast Guard did not conduct counter-smuggling patrols extensively. The seaborne smuggling traffic continued to increase along with the speed of the boats that were bringing it to shore. In 1922 shipyards began producing built fast, small boats obviously designed for smuggling. Boat engine companies even offered free machine guns as a purchase incentive. The three-mile limit was a great advantage for the smugglers and allowed for only a small window of opportunity for the Coast Guard to interdict them. Other enforcement agencies lacked the personnel and boats to interdict traffic between Rum Row and the shore, and the smugglers operated nearly uncontested. Courts showed incredible lenience to smugglers, more often ruling in their favor than against them.⁷⁰

Despite the relative absence of law enforcement in the early years of prohibition, things were not always easy going for the smugglers. Piracy was a severe and sometimes deadly problem. There were numerous incidents of boats of armed men boarding mother ships and seizing their liquor, while others simply waited until these ships sold their cargo and then stole the cash. The increase in piracy, hijacking, and murder related to smuggling was cause for serious concern. Some proposed that the Navy should be used to

⁶⁹ Johnson, 63-67.

⁷⁰ Ensign, 4; Willoughby, *Rum War at Sea*, 30, 32, 34.

disrupt smuggling activities. SecNav Edwin Denby denied these requests, stating that legislation prohibited the Navy from using its vessels for law enforcement.⁷¹

To properly equip the Coast Guard to contend with smugglers, Coast Guard Commandant William E. Reynolds submitted a plan to purchase new ships, small boats, and recruit new personnel. The proposal would cost a staggering \$19 million. In 1923, Secretary of the Treasury Andrew M. Mellon requested the Coast Guard's budget be increased by \$28,500,000. Congress appropriated \$13,850,622, but the majority of the money would be to activate 20 Navy destroyers and two minesweepers to be used by the Coast Guard and only a small sum went toward the purchase of 223 cabin cruisers and 100 small boats. Congress also authorized a personnel increase of 149 commissioned officers, 418 warrant officers, and 3,789 enlisted men.⁷²

In order to acquire the destroyers from the Navy, the Commandant appointed a team of engineers to inspect the destroyers and select the best to be transferred to the Coast Guard. Once they identified the destroyers to be transferred, the decision was made to overhaul 18 in Philadelphia, and two more at the New York Navy Yard. These destroyers were put into service before World War I and had been laid up since the conclusion of the war. Considerable work was required to rehabilitate them, which was carried out exclusively by Coast Guard personnel. The commanding officer, upon taking

⁷¹ Johnson, 81; Willoughby, *Rum War at Sea*, 34-36. Willoughby refers to "the original powers granted the Navy" as the basis for Secretary Denby's denial of the request to use Navy vessels for law enforcement. This likely refers to the Posse Comitatus Act. Although the Navy is not explicitly mentioned in the act, it has customarily followed its provisions.

⁷² Ensign, 8; Johnson, 81.

command of the *Trippe*, referred to her as an “appalling mass of junk.” Coastguardsmen repaired the living quarters, machinery, and hulls of the destroyers. The torpedo tubes and depth charge racks were removed, as well as the aft mounts to save weight. A 1-pounder was added to fire warning shots at smuggling vessels. *Heneley* was the first of the destroyers to be put into service in the summer of 1924 and later in 1926, the Coast Guard would obtain another five destroyers. In 1930, seven of the older destroyers were turned back over to the Navy and five Clemson-class destroyers went into Coast Guard service. One additional Clemson-class destroyer, the *Semmes*, was transferred to the Coast Guard in April 1932. By 1934, all the destroyers were transferred back to the Navy.⁷³ For more information on destroyers operated by the Coast Guard, see Appendix A.

The destroyer *Paulding* is shown in Figure 4 below.

⁷³ Donald Canney, *Rum War: The U.S. Coast Guard and Prohibition* (Washington, DC: U.S. Coast Guard, 1990), 7; Johnson, 83, 91; Willoughby, *Rum War at Sea*, 47-48.



Figure 4. *Beale*, Paulding-class Coast Guard Destroyer

Source: U.S. Coast Guard Historian's Office. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

The Coast Guard added approximately 4,000 personnel to the workforce between 1924 and 1926. For a short time, recruits were recruited by Navy recruiters and attended basic training in Newport, Rhode Island, and Hampton Roads, Virginia. In 1925, it was deemed that Navy facilities could not be used to train Coast Guard personnel, and after that, recruits were trained at the Coast Guard Academy in New London, Connecticut. To fill vacancies in the officer ranks, the Academy class of 1925 graduated eight months early, receiving their commissions in September of 1924. Due to the influx of personnel, many of the crew members that went to the destroyers were minimally trained. The exception was the command cadre who received training from Navy officers who were

familiar with destroyer operations, and the engineers who attended a four-week boiler and turbine course.⁷⁴

In the winter of 1924, many of the destroyers were in operation, and the newly built 75-foot patrol boats, “six-bitters,” and 30 and 36-foot boats were entering service. The Coast Guard would eventually take delivery of 203 of the 75-foot patrol boats. The first 17 were delivered in October of 1924, and by the summer of 1925, there were 200 in service. These patrol boats were equipped with gasoline engines and reached a speed of 13.5 knots. They were armed with 1-pounder and a .30-caliber machine gun. 103 of the smaller boats were put into service. They did not have crew quarters like the “six-bitters” but could reach speeds of 24 knots.⁷⁵ The additional ships, small boats, and personnel meant the Coast Guard was better prepared to curb the smuggling operations, but more was required. A 75-foot patrol boat is shown in Figure 5 below.

⁷⁴ Johnson, 82-83.

⁷⁵ Ensign, 8; Johnson, 83; Willoughby, *Rum War at Sea*, 57. The term “Six-bitter” referred to the length of the 75-foot patrol boats.



Figure 5. A “six-bitter” 75-foot Patrol Boat

Source: Defense Visual Information Distribution Service. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

The Coast Guard continued to add more boats and cutters to its fleet throughout the prohibition era. These included the 100-foot, 125-foot, and 165-foot cutters, and 78-foot patrol boats.⁷⁶ In particular, the 165-foot cutters were seen as a more economical alternative to using the destroyers. They were cheaper to repair and maintain and had much smaller crews. The influence of the General Board of the Navy on the 165-foot cutter design will be discussed in detail in the following chapter.⁷⁷

⁷⁶ For more information on the 125-foot and 165-foot cutters, see Appendix B.

⁷⁷ Canney, 7; Johnson, 91-92.

The Coast Guard also began the practice of putting seized smuggling vessels into service. Between 1925 and 1935, over 500 seized boats were reassigned to be used by the Coast Guard. Before 1926, smugglers could buy back seized vessels. Some of these vessels proved well suited for counter-smuggling operations due to their excellent speed and maneuverability, as well as their inconspicuous appearance. Not all of them were used; however, some were found unsuitable for service and were either destroyed or turned over to be used by other government agencies. Of the more than 500 seized, 232 were employed by the Coast Guard for counter-smuggling operations.⁷⁸

Another significant development during this time was the signing of an international agreement with Great Britain that extended the Coast Guard's authorization to board British vessels out to 12 miles. Similar agreements were made with other countries and the extension of boarding authority to 12 miles expanded the area in which the Coast Guard could interdict smuggling vessels. In July 1924, Commandant Billard published doctrine to guide Coast Guard counter-smuggling operations. *The Doctrine for the Prevention of Smuggling* organized the destroyers and new patrol boats as Special Service Craft with the exclusive task of interdicting smugglers. The destroyers were organized into five squadrons and assigned the patrol boats to bases along the coasts. The operational concept was for the destroyers to patrol offshore and locate the smuggling vessels, and then notify the patrol boats which would follow the suspected smugglers and

⁷⁸ Ensign, 11-12; Willoughby, *Rum War at Sea*, 147-148.

board them if they entered the 12-mile limit. The smaller picket boats would patrol closer to shore and attempt to disrupt the smaller contact boats headed to shore.⁷⁹

By 1925, Coast Guard vessels had increased substantially, with 33 cruising cutters, 17 harbor cutters, 20 destroyers, and 300 patrol boats and picket boats. These new vessels, tactical doctrine, the extension of the enforcement zone from 3 miles to 12, and the doubling of personnel all contributed to the growing success of the Coast Guard's anti-smuggling operations. Additionally, the Coast Guard began to systematically compile data on the Rum Row ships, including their names, locations, capacity, and type of contraband. A more in-depth understanding of the smuggling network allowed for better employment its interdiction assets. As the Coast Guard had greater effect on the rumrunner's operations, the smugglers adopted new tactics.⁸⁰

Feeling the pressure of the larger, more organized Coast Guard fleet, smugglers employed numerous tactics to counter the Coast Guard's efforts. As the liquor trade became more organized under criminal syndicates, the modes of conveyance improved. Newer flat-bottomed, high-speed contact boats were used, some equipped with up to four engines. Some of these craft had armored hulls to protect the gasoline, tanks, engines, and pilothouse from disabling fire. Some of these boats could reach impressive speeds of over 30 knots, easily outrunning any pursuers. Modern diesel-powered cargo ships equipped

⁷⁹ Ensign, 15; Johnson, 83-85. The Tariff Act of 1922 unilaterally extended U.S. authority to board foreign vessels within 4 leagues, or 12 from the coast. This change was not well received in the international community. After negotiating with Great Britain, the three-mile territorial sea limit was upheld, but the boarding of vessels suspected smuggling vessels was permitted within one hour's steaming distance of land, which was generally interpreted as 12 miles.

⁸⁰ Ensign, 16; Willoughby, *Rum War at Sea*, 58-59.

with radios and radio direction-finders replaced the older yachts and trawlers that were used as mother ships. These new vessels had excellent cargo capacity, and due to their speed and appearance, they were much more difficult for the Coast Guard to track.⁸¹

Many of the destroyers and cutters used by the Coast Guard were not as maneuverable as the smuggling ships and accelerated slowly. Smugglers used evasive maneuvers to lose trailing ships were highly effective. The standard practice for smuggling ships to evade a destroyer was to deploy a smokescreen and quickly reverse course and pass close to the pursuer. Depending on visibility and moon illumination, the destroyers would often have difficulty visually tracking the vessels. Another evasion technique was to use decoy boats. Several contact boats were sent ashore at once, with the faster boats transporting larger loads of liquor while a slower boat with a smaller load acted as a sacrificial lamb and allowed the others to escape.⁸²

Radar was not available at this time, and if it had been, the smugglers would likely not have escaped so easily. Rumrunners also used shallow draft vessels to their advantage, maneuvering through sandbars or shoal water where the larger Coast Guard vessels could not pursue. Due to their lack of maneuverability and inability to continuously pursue rumrunners, the destroyer's usefulness was criticized. The service advocated for more maneuverable patrol boats.⁸³

⁸¹ Willoughby, *Rum War at Sea*, 65-66.

⁸² Canney, 8; Willoughby, *Rum War at Sea*, 63-65.

⁸³ Johnson, 91; Willoughby, *Rum War at Sea*, 63-65.

While indeed not a new smuggling tactic, concealment was widely used by liquor smugglers. False bottoms, secret compartments, and hiding liquor underneath fish and other cargo were prevalent methods of concealment. The use of these concealment methods required boarding teams to make thorough searches of suspect vessels. Usually examining a ship's documents and taking detailed hull measurements would reveal the presence of hidden compartments. Some concealment methods were more difficult to detect, including compartments built into the underside of the vessel's hull and masts.⁸⁴

The smugglers often used bribery, but this sometimes did not work in their favor. A Coast Guard boatswain was propositioned by a smuggling syndicate to transport liquor into New York Harbor. He told the syndicate that he would have someone contact them. The proposition was reported to higher command and an undercover operation was planned. Another boatswain was directed to contact with the syndicate and was offered a bribe to run 500 cases into New York Harbor. During the operation, the boatswain picked up two syndicate agents on patrol boat CG-203 and unloaded liquor from the British schooner *Madeline Adams*. When the patrol boat returned to port, the syndicate agents were arrested, and later the *Madeline Adams* was apprehended by the cutter *Seminole*.⁸⁵

Smugglers made extensive use of radios and radio direction finders. Radios became especially useful for coordinating deliveries when the mother ships were pushed further offshore to the twelve-mile limit. They developed sophisticated radio codes and established radio stations. The direction finders allowed them to find the position of

⁸⁴ Ensign, 24; Willoughby, *Rum War at Sea*, 72-74.

⁸⁵ Willoughby, *Rum War at Sea*, 70-71.

Coast Guard assets. Radio hoax calls were used to divert cutters to an area away from smuggling operations, and smugglers would then use the opportunity to run liquor to the shore unabated.⁸⁶

Due to the sophistication of the smuggling syndicates and the means they employed, the Coast Guard developed a robust intelligence program during the prohibition era. Initially, most of the intelligence sources were in the form of human intelligence. Later, as the smugglers used radio more prevalently, the Coast Guard developed extensive communications intelligence capabilities. Aircraft were also used to capture imagery of smuggling vessels and their locations. The advancement of intelligence in the Coast Guard was the most significant development in the service during the prohibition era.⁸⁷

Early in the prohibition era, there were numerous overt efforts to collect human intelligence. In 1924, the cutter *Tampa* anchored near the island of St. Pierre and radioed back vessel information to Coast Guard Headquarters. On another occasion, an officer was sent to Nova Scotia to gather information on rum runners that were being built. This information was leveraged to improve the design of new Coast Guard patrol boats. There were also covert human intelligence collection efforts. At the request of the Coast Guard, undercover agents from the Prohibition Bureau collected information on numerous smuggling bases on St. Pierre and throughout the Caribbean. The efforts in Cuba were

⁸⁶ Canney, 8.

⁸⁷ Ensign, 20.

particularly useful, and the agents were credited with significantly hampering operations there.⁸⁸

The Coast Guard relied significantly on outside sources for intelligence, including the use of informants and other agencies. Both sources proved to be a rich source of information on motherships departing foreign ports. The State Department has especially helpful and sent regular arrival and departure notifications for known smuggling vessels. Canadian Officials also provided information on liquor smuggling activities on the Great Lakes. Coast Guard Headquarters analyzed intelligence and compiled reports on smuggling vessels, as well as the criminal organizations involved in smuggling. This information was then distributed throughout the fleet using Intelligence Circulars.⁸⁹

The most noteworthy evolution in intelligence was in the area of communications intelligence. LCDR Charles S. Root established a radio intercept station in New York City in 1925 with the help of *the New York Times* associate, Mr. R. J. Iverson. As the use of codes became more prevalent, the Coast Guard began developing substantial decryption capabilities. Although the Navy refused to assist the Coast Guard with code-breaking, the War Department's Signal Corps did assist with these activities. The value of the communications intelligence was quickly recognized. As the Coast Guard became more proficient at deciphering, there was a greater appetite for intercepted radio traffic. Shore-based radio intercept stations were established, and smaller vessels not initially equipped with radios were appropriately outfitted. The Coast Guard also began recruiting

⁸⁸ Ensign, 21-22.

⁸⁹ Ibid., 22-24.

radio operators to contend with the deluge of radio traffic and established a radio operator training program.⁹⁰

As smuggling organizations relied more on radio, their codes became more complex and they established radio stations ashore. They made use of high-frequency radio that could transmit over relatively long distances with low power. In the 1920s, direction finders were ineffective for locating ships and shore stations using these high-frequency radios. The Coast Guard made a substantial effort in developing high-frequency direction finders. Eventually, several smaller cutters were equipped as collection ships, and a small, portable direction finder was made for use ashore. These efforts led to the discovery of numerous shore-based radio stations. Prosecuting cases related to illegal broadcasting proved difficult, and Coast Guard officials realized there was much better value in interdicting vessels involved in smuggling rather than locating shore-based radio stations.⁹¹

The Coast Guard continued to expand its cryptologic capabilities and established a decoding section. Up until this time, much of the decoding work had been done by a handful of people at Coast Guard Headquarters. Mrs. Elisabeth Friedman deserves a special mention for her work, having broken over 12,000 codes in her first three years working for the Coast Guard. In 1930, the Coast Guard established a satellite intelligence office in New York City. This new unit supported counter-smuggling operations in the New York and Norfolk divisions, and relieved Headquarters of a large portion of its

⁹⁰ Ensign, 25-27; Willoughby, *Rum War at Sea*, 106-107.

⁹¹ Ensign, 28-29, 31; Willoughby, *Rum War at Sea*, 108-113.

intelligence work. Later, offices were established in Mobile, Alabama, and San Francisco, California.⁹²

Another significant development was the Coast Guard's use of aircraft to collect imagery and positions of suspected smuggling vessels. In 1925, the Coast Guard acquired a Navy biplane for this specific purpose. In 1926, five aircraft were purchased for airborne reconnaissance, three Loening OL-5 amphibians, which were built specifically for the Coast Guard, and two Chance-Vought biplanes. Although there were few of the planes in service, they had a profound impact. The imagery gathered was compiled into a smuggling vessel identification book, which aided Coast Guard units in vetting suspected smugglers. While the Coast Guard operated Navy aircraft during the First World War and for a short time after, now a permanent aviation branch was established.⁹³

The Coast Guard relied heavily on other agencies for intelligence and shared with them extensively. As discussed earlier, the State Department and Canadian Officials contributed valuable information to the counter-smuggling fight. The Coast Guard also cooperated with the Department of Justice, the War Department, the Navy, and numerous other agencies. This early interagency work is indicative of how the Coast Guard would operate as a member of the intelligence community and cooperate with other government agencies in the future. The Coast Guard's intelligence efforts contributed to a substantial

⁹² Ensign, 33.

⁹³ Canney, 7; Ensign, 35-36; Johnson, 90.

reduction in seaborne smuggling activity, with an estimated reduction of 60% between fiscal years 1927 and 1928.⁹⁴

Throughout prohibition, there had been efforts to repeal the 18th Amendment, but these gained significant momentum in the late 1920s and early 1930s. The stock market crash in 1929 and the onset of the Great Depression caused a shift in the political climate, and some argued that legal liquor sales would be a rich source of revenue for the Treasury Department. On 5 December 1933, the 21st Amendment went into effect and ended the 14-year prohibition of alcohol. Although liquor smuggling did not completely end at this point, most of the syndicates involved in the trade turned to more lucrative criminal activities. Smugglers looking to make a profit by forgoing the tax on liquor were few and far between. Subsequently, funding for the Coast Guard was drastically reduced. The destroyers that had been obtained from the Navy were returned, numerous smaller vessels were decommissioned, and the reduction of personnel commenced.⁹⁵

So ended an exciting and turbulent era for the Coast Guard. Despite it being an incredibly unpopular task, prohibition enforcement left an indelible mark on the service. Just as it adapted to its wartime mission in World War I, the swiftness in which the Coast Guard adapted to the counter-smuggling mission shows the service's versatility. While the repeal of the 18th Amendment seemingly undermined the Coast Guard's efforts during the prohibition era, it emerged a much stronger organization.

⁹⁴ Ensign, 37, 44.

⁹⁵ Willoughby, *Rum War at Sea*, 157-160.

Prohibition forced the Coast Guard to narrowly focus on counter-smuggling activities. To adapt to the new mission, the service made significant changes to its force structure by adding ships, personnel, and aircraft. A new modern fleet of cutters and patrol boats were built, with cutting edge radio and direction-finding equipment. Even though the workforce faced a downturn at the end of prohibition, it was still larger than it had been before prohibition. Recruitment offices and training centers were established to ensure a steady flow of personnel. Establishing recruitment centers allowed the service to expand as needed to face future challenges, including the surge in personnel needed for World War II.

The Doctrine to Prevention of Smuggling was another significant development that focused the service's efforts in the counter-smuggling arena. The doctrine aligned the new force structure by delineating how it would be organized and operate. The tactics it specified meshed with the strengths and weaknesses of the platforms available, as well as the known methods of conveyance used by smugglers. Promulgating this doctrine had a practical, tactical purpose, but it also served to unify personnel around the counter-smuggling mission.

The Coast Guard's developments in aviation during this period was another essential milestone. Although the Coast Guard did operate aircraft and aviation facilities during World War I, for the first time, the service acquired organic aviation capabilities and used them to compliment surface forces. It also gained significant intelligence capability, including a propensity for sharing and leveraging intelligence with other agencies.

The Prohibition Era was a forcing mechanism for the Coast Guard that drove adaptiveness and innovation. The innovations and the experience gained by conducting the counter-smuggling mission were essential steps toward the development of the Coast Guard's overall proficiency as an organization, one that was ready to better integrate with the Navy during wartime. Although the counter-smuggling operations were not warfare, the proficiency gained in carrying out fast-paced maritime operations certainly provided coast guardsmen with skills and experience that would help them adapt to their future wartime missions.

Just as the Prohibition Era ended, the Great Depression began taking a severe toll on the Coast Guard's budget. In 1933 the Coast Guard closed six bases, fifteen lifesaving stations, decommissioned seven destroyers and 111 patrol boats, and discharged 1,600 enlisted men. These measures reduced the organization's operating cost by 25 percent, but even that was not enough to prevent it from once again being considered for amalgamation with the Navy. A merger seemed imminent when President Franklin D. Roosevelt took office in March of 1933. Roosevelt had served as the Assistant SecNav under Josephus Daniels and indeed supported the Secretary's view that the Navy retain the Coast Guard.⁹⁶

On 26 December 1933, a committee was established to consider the administration of the Coast Guard should it be transferred to the Navy. The committee concluded that in the event of a merger, the Coast Guard should be administered as a separate organization, like the U.S. Marine Corps. Several Congressmen met with the

⁹⁶ Johnson, 57, 128.

President on 12 January 1934 and recommended against a transfer. While the proposition did not gain much traction, the Navy did take over a section of Coast Guard communication facilities. The idea was that there might be efficiencies to have the Navy administer the facilities. On 28 June 1934, communication stations from Maine to New Jersey were transferred on a two-year trial basis. After the two years, the Navy transferred the stations back under Coast Guard control, and the two services agreed that it was best to operate separate facilities.⁹⁷

Although the fiscal environment in the 1930s was bleak, the recapitalization of Coast Guard assets was necessary to carry out its missions. A new class of cruising cutter capable of carrying airplanes was the highest priority. The Coast Guard initially intended to build nine of these cutters, but rising costs limited the acquisition to seven. The program cost was reduced by using a preexisting Navy gunboat design based on the Erie-class and building the cutters in Navy shipyards. Construction commenced in 1935, and the first cutter of the Treasury-class, *Campbell*, was commissioned in June of 1936. These vessels would play an essential role as escorts and anti-submarine warfare platforms during World War II. The Treasury-class cutters will be discussed further in the following chapter.⁹⁸

During the 1930s, the Coast Guard assumed several new peacetime missions. On 21 December 1936, an Executive Order tasked the Coast Guard with keeping vital searoutes free of ice. The Coast Guard had engaged in icebreaking activities throughout its

⁹⁷ Johnson, 131-132.

⁹⁸ Ibid., 144, 154.

history, but now this responsibility was formally attributed to the Coast Guard. Legislation in 1936 also added the enforcement of whaling regulations to the Coast Guard's portfolio of missions. In 1938, the Coast Guard began administering the Maritime Service, with the primary responsibility of overseeing the licensing and training of Merchant Mariners. Along the same lines, the Coast Guard took on responsibility for regulating recreational boating activities. This function was mainly carried out by the Coast Guard Reserve, established in 1939. On 1 July 1939, the Bureau of Lighthouses was transferred to the Coast Guard, adding the responsibility for maintaining aids to navigation.⁹⁹

With the onset of war in Europe in 1939, the Coast Guard quickly became involved in enforcing neutrality laws, which prohibited the export of munitions to belligerents. To this end, coast guardsmen boarded merchant vessels owned by belligerent states to see if they had offensive armaments. Additionally, cutters and aircraft conducted neutrality patrols to prevent U.S. or foreign-flagged vessels from violating neutrality laws. Enforcing neutrality laws stretched Coast Guard assets, causing the reassignment of more cutters to the East Coast. In 1940, the Coast Guard took on yet another peacetime mission. Increased air traffic across the Atlantic Ocean brought the need for consistent weather reporting. Soon the 327-foot Treasury-class cutters and the 250-foot Lake-class cutters were assigned to these duties.¹⁰⁰

⁹⁹ Johnson, 155, 158-163

¹⁰⁰ Ibid., 172-177.

The most significant development for the Coast Guard in the pre-war period was protecting American interests in Greenland. Greenland's geographic location and resources made it particularly valuable. The prevailing concern at the time was that if Germany occupied Greenland, it could threaten U.S. shipping lanes. Furthermore, cryolite, an essential mineral for smelting aluminum used in aircraft production, was mined in Greenland. A decision was made to establish a U.S. consulate in Godthaab, and the cutter *Commanche* 10 May 1940 departed to convey the consul to Greenland. The *Campbell*, *Duane*, and *Cayuga* were dispatched later to assist *Commanche* with patrolling Baffin Bay to protect the cryolite mine in Ivigtut, near the Southern tip of Greenland. These patrols marked the beginning of the Coast Guard's activity in Greenland that would last the duration of the war.¹⁰¹

As the war drew near, Coast Guard cutters began the process of being outfitted for combat. Additional guns, depth charge racks, and Y-guns were added, as well as sonars and degaussing systems. Weight was a concern with the added armaments, and both the *Tampa*-class and *Lake*-class cutters both equipped an additional 3-inch gun rather than the 5-inch guns that their original plans projected. More guns called for additional crew members, and bunks were added to accommodate them.¹⁰²

In June of 1940, Admiral Harold R. Stark requested that Coast Guard officers be assigned to assist OpNav War Plans division in incorporating the Coast Guard into the War Plans. Commandant Russell R. Waesche assigned Captain William H. Shea, Captain

¹⁰¹ Johnson, 177.

¹⁰² Johnson, 179; Paul Silverstone, *The Navy of World War II, 1922-1947* (New York: Routledge, 2008), 352-353.

Lloyd T. Chalker, and Commander Frank J. Gorman. The officers assigned to OpNav developed a plan to integrate the Coast Guard with the Navy. The plan called for reorganizing the districts to align with the Navy districts more closely. SecNav moved to initiate the mobilization of the Coast Guard in January of 1941. The mobilization did not commence, however, likely because it would have telegraphed the U.S. entry into the war. The Navy did assume control of several Coast Guard cutters in the spring of 1941. In June of that year, an executive order transferred 2,100 Coast Guard personnel to the Navy to man transports and other vessels. On 27 May 1941, the President declared a state of emergency, and the Coast Guard's Honolulu district was transferred to the Navy, including the cutters *Reliance*, *Tiger*, the tenders *Kukui* and *Walnut*, and two patrol boats. On 1 November 1941, Executive Order 8929 initiated the transfer of the Coast Guard from the Department of the Treasury to the DoN.¹⁰³

The years between the end of the Prohibition Era and the Coast Guard's transfer to the Navy in 1941 proved to be formative for the service. The Coast Guard acquired new assets and many new peacetime missions. It once again faced the risk of losing its institutional identity by being permanently moved to the Navy. The Coast Guard's pre-war activities, specifically the Greenland Patrol and Neutrality Patrols, continued to hone the operating skill of its personnel. As war loomed on the horizon, cutters prepared for combat and personnel were transferred to fill vacancies in the expanding Navy. It would be a mistake to say that the Coast Guard was ready for its wartime role. The small service, indeed, had little time to prepare for war, given the expanse of its peacetime

¹⁰³ Johnson, 191-193.

duties. Instead, much like it had done in previous conflicts, it would simply adapt to its wartime role.

The focus of this study will now shift to examining the strategy of integrating the Coast Guard into the DoN during wartime. Hearings from the General Board of the Navy showed the challenges associated with designing cutters that were versatile enough to perform both the Coast Guard's peacetime and wartime missions. Subsequently, the Color Plans and Rainbow Plans showed the Navy's intent to mobilize, integrate, and employ the Coast Guard during wartime operations.

CHAPTER 4

THE GENERAL BOARD'S INFLUENCE ON CUTTER DESIGN

The proceeding chapters provide the necessary background information to understand the Coast Guard's development from the beginning of World War I, through the Prohibition Era, and the decade before World War II. This study will now examine U.S. Navy strategic documents and processes and their influence on the development of the Coast Guard during the interwar period, beginning with hearing transcripts from the General Board of the Navy. In the following chapter, an analysis of the Color Plans and Rainbow Plans will show how the Navy intended on employing the Coast Guard during wartime.

The General Board of the Navy was a strategic planning organization active from 1900-1950. It evolved from the Naval War Board of 1898, established by SecNav John D. Long. Two of the Naval Board's early members were Captain Alfred Thayer Mahan, one of the most momentous naval theorists of all time, and Assistant SecNav Theodore Roosevelt. The board's premise was to function as a strategic advisory body to SecNav, who, in the case of Secretary Long, had limited knowledge of naval operations. In some ways it functioned as a kind of general staff for the Navy leadership. ¹⁰⁴

The end of the Spanish-American War ended the Naval War Board of 1898. The importance of this advisory body was not lost to SecNav, who issued a Navy Department

¹⁰⁴ Jarvis Butler, "The General Board of the Navy," U.S. Naval Institute *Proceedings* 56, no. 8 (August 1930): 700-702, accessed 09 April 2020, <https://www.usni.org/magazines/proceedings/1930/august/general-board-navy>; Kuehn, *America's First General Staff*, 1-2.

General Order to establish the General Board of the Navy on 13 March 1900. Since the Secretary established the General Board and not congressional legislation, it could have easily been disestablished by any of the subsequent secretaries. Yet the General Board continued to serve as a strategic advisory and war-planning organization even after Rear Admiral Henry Taylor's death in 1904. In 1909 the General Board became heavily involved in fleet design. President Theodore Roosevelt convened a conference at the Naval War College to remedy the convoluted ship design process that often degenerated into bureaucratic squabbling. The solution was to include line officers in ship design. U.S. Naval Regulations formalized this process in 1930, and the General Board became the clearinghouse for naval ship design. In this role, the General Board had an immense impact on shaping the naval fleet.¹⁰⁵

The role of the General Board changed with the establishment of the Office of the Chief of Naval Operations (OpNav) in 1915. OpNav took over the war-planning functions, but the General board continued to exercise authority over ship design and fleet structure. The board's recommendations included the number and types of ships to be built. Through its control of developing the means by which OpNav's strategy would be carried out, the General Board maintained a considerable amount of power in shaping strategic policy. The U.S. Navy's shipbuilding program became more complicated following the adoption of the naval treaty system in 1922. The treaties limited naval armaments for Britain, France, Italy, Japan, and the United States. The General Board's

¹⁰⁵ Butler, 702. Kuehn, *America's First General Staff*, 2-5. Taylor is often considered the founder of the General Board.

challenge during this period was to balance the provisions of the Naval Treaty with the strategic requirements of the war plans.¹⁰⁶

The General Board's influence diminished during World War II, and its existence became even more precarious with the subsequent national security reforms. There was no appetite for an independent advisory body that might compete with the interests of the newly established Office of the Secretary of Defense. The Bureau of Ships within OpNav replaced the General Board as the authority on fleet design. The General Board continued its work, although with less impact, into November 1950.¹⁰⁷ For five decades, the board shaped naval strategy through a variety of evolving roles, but chiefly through its influence on shipbuilding programs and fleet structure. The relevance to this research topic is, how did the General Board impact Coast Guard cutter design during the interwar period?

The earliest record of the General Board meeting to discuss Coast Guard shipbuilding took place on 12 November 1917. This hearing was held at the request of Captain Commandant Russell W. Bertholf to investigate the proper armament of future Coast Guard cutters. Participants at this first meeting were Admiral Charles Badger, Admiral Albert Winterhalter, Marine Corps Commandant General George Barnett, Captain Shoemaker, Lieutenant Commander Rowan, and Mr. Frederick A. Hunnewell. Admiral Badger was a key figure on the General Board and became the senior ranking member of the board following Admiral Dewey's death in 1917. He previously

¹⁰⁶ Butler, 704; Kuehn, 5-7, *America's First General Staff*, 139.

¹⁰⁷ Kuehn, *America's First General Staff*, 8, 217-219.

commanded the Atlantic Fleet, the most senior afloat command in the Navy. Admiral Winterhalter was a senior board member and former commander of the Asiatic Fleet. Mr. Hunnewell, referred to as “Constructor Hunnewell,” was the Coast Guard’s lead ship designer.¹⁰⁸

Referring to the Coast Guard’s developing ship building programs, Hunnewell stated, “there is a possibility of building the larger ones, 240 feet, and some smaller ones.” The 240-foot *Tampa*-class cutters he referred were to be the *Tampa*, *Haida*, *Mojave*, and *Modoc*, built by the Union Construction Company in Oakland, California, and launched in 1921. The construction of these ships was authorized in 1916 and 1917, but construction stalled due to the priority of Navy shipbuilding programs during the war. The “smaller ones” referred to a refreshed design of the 165-foot *Tallapoosa* and *Ossipee* that came to be known as the Escanaba-class cutters. The first-in-class *Escanaba* was launched in 1932, followed by the *Algonquin*, *Comanche*, *Mohawk*, *Onondaga*, and *Tahoma* all launched in 1933-34.¹⁰⁹ A photograph of Cutter *Algonquin* is included in Figure 6.

¹⁰⁸ *Battery for Coast Guard Cutters*, 12 November 1917, 1-2, Proceedings and Hearings of the General Board of the Navy, RG 80, National Archives and Record Administration (hereafter cited as PHGB); Johnson, 66; Kuehn, *America’s First General Staff*, 96, 106, 115-116, 126. Unless otherwise noted, ranks for admirals are rear admiral and for general, major general. These were the highest permanent ranks for officers serving ashore. 3- and 4- star ranks were reserved for fleet billets and the CNO.

¹⁰⁹ *Battery for Coast Guard Cutters*, 12 November 1917, 1-2, PHGB; Johnson, 65-66, 116; Silverstone, 355.



Figure 6. *Algonquin*, 165' *Escanaba*-class Cutter

Source: Naval History and Heritage Command, *USCG Algonquin (WPG-75)*. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

The 240-foot cutters featured a traditional hull design and were equipped with an innovative General Electric turbo-generator and electric drive. This power plant provided better efficiency than the reciprocating engines, which were widely used in previous cutter designs. The 165-foot cutters were equipped with a geared turbine. Hunnewell informed the board that the *Tampa*-class cutters would cost roughly \$600,000, and the plan was to equip them with four 4-inch guns. Referring to the *Tampa*-class, Winterhalter pointed out that if the cutters were to be used as submarine chasers, as many of the cutters deployed to Europe during World War I were, they should be equipped with 5-inch guns or the largest guns practicable. He added that four-inch guns were becoming obsolete and the Navy was inclined to increase the caliber of all guns. Badger recommended the 240-

foot cutters mount “three 5-inch guns centerline, one 3-inch anti-aircraft gun, and two machine guns”. He also suggested Hunnewell consider underwater torpedo protection, which he obliged to do if it did not add any weight.¹¹⁰ A photograph of cutter *Tampa* is shown in Figure 7, below.

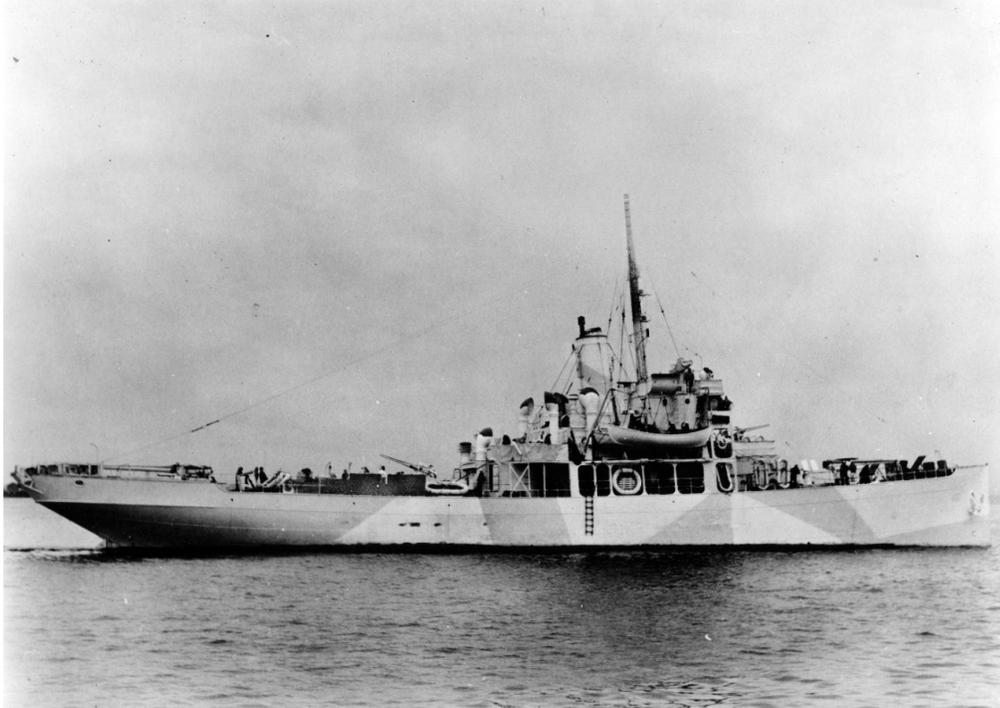


Figure 7. *Tampa*, 240’ Tampa-class Cutter

Source: Navy History and Heritage Command, *U.S. Coast Guard Combat Cutter, The Tampa, which patrols the North Atlantic, in resumption of the International Ice Patrol World*. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

¹¹⁰ *Battery for Coast Guard Cutters*, 12 November 1917, 1-4, PHGB; Johnson, 66, 116. According to the hearing records, Hunnewell only provided the design for the 240-foot cutters, and the following conversation on armament does not refer to the 165-foot *Escanaba*-class cutters. The 240-foot Tampa-class cutters eventually mounted two 5-inch guns and a 3-inch anti-aircraft gun.

Speed and endurance were important topics of this hearing, as they would be for all of the General Board's hearings with the Coast Guard. Hunnewell stated that the top speed of the 165-foot cutters was 12.5 knots with an endurance of 6000 nautical miles (nm) and the larger 240-foot cutters would make 16 knots with an endurance of 7000 nm at an 8-9 knot cruising speed. Underwhelmed by the stated speed and size of the smaller 165-foot cutter, Badger commented: "she is good for your purpose but not for our purpose." Winterhalter commenting on the cutters deployed in European waters said, "if the vessels over there now had 16 knots, the men in command would be very much happier, no doubt; you could then count upon them as a unit of the Navy." It seems as though neither Badger nor Winterhalter were impressed with the proposed cutter designs. At one point during the discussion, Hunnewell commented that the Coast Guard might procure two of the 240-foot *Tampa*-class cutters and three 165-foot *Escanaba*-class cutters. Winterhalter's response was, "how would you like to have five of the same size of a useful design?" Hunnewell affirmed that both proposed designs suited the Coast Guard's needs.¹¹¹

The discussion on the speed and "usefulness" of the cutter design highlights the competing demands of the Coast Guard and the Navy. The Navy valued the essential warfighting characteristics of speed and armament. The Coast Guard, on the other hand, was more interested in endurance and seakeeping ability. Hunnewell had many tradeoffs to consider when designing these cutters. Weight, size, speed, endurance, deck space,

¹¹¹ *Battery for Coast Guard Cutters*, 12 November 1917, 3-4, PHGB.

crew-size were all interrelated and competing factors. These considerations illustrate the challenge of designing a multi-mission cutter that is still useful in a wartime environment.

Another important takeaway from this hearing is the length of time between when the discussion of the initial cutter designs, and when they were eventually launched.

While the 240-foot cutters were launched four years after the hearing, the first of the 165-foot cutters were not launched until 1932. Winterhalter stated during the hearing, “we don’t know where you are going to build these ships.” Hunnewell acknowledged that the shipyards were indeed “busy.”¹¹² Considering the smaller number and size of the ships that the Coast Guard intended on building compared to Navy shipbuilding programs, it is no surprise that the shipyards would give preference to the larger Navy contracts.

Funding certainly played a role in the delay of constructing these ships as well. As discussed in the previous chapter, Secretary Mellon requested \$28,500,000 to purchase new cutters. Instead, the Coast Guard received half of this request, the majority of which was to be used to procure 20 destroyers from the Navy.¹¹³ Unfortunately forcing the Coast Guard to acquire the Navy destroyers meant prevented the service from acquiring better, purpose-built ships.

On 18 December 1917, the General Board met again with Hunnewell to discuss the changes made to the 240-foot cutter design based on their recommendations. The only additional participants not mentioned in the previous hearing, was Admiral F. Friday Fletcher and U.S. Coast Guard Captain Wolf. Hunnewell began by explaining the

¹¹² *Battery for Coast Guard Cutters*, 12 November 1917, 3-4, PHGB, 3.

¹¹³ Johnson, 81.

addition of the three 5-inch guns placed centerline, arranged one forward and two aft, and one anti-aircraft gun. Hunnewell expressed his initial concern for the increased weight of the armaments, later commenting that it added 50 tons. The discussion turned to the firing arc of the forward gun, which was impeded by the gunwales. Rowan suggested building a platform to resolve this, but Hunnewell again brought up his concern of added weight. Fletcher suggested simply changing course to fire ahead.¹¹⁴

Again, production cost was a pertinent topic during the hearing. Hunnewell stated the total appropriation for the program was \$2.25 million and that the cutters could be procured for \$500,000, adding that he expected the cost would be \$350,000 in “normal times.” Assuaging Hunnewell’s concern that there was only \$2.25 million available for the new cutters, Badger said that the board could recommend additional funding. Rowan refers to a unique appropriations program for arming Coast Guard vessels, explaining that they could use it to arm the cutters. Wolf explained further that “In the law placing the Coast Guard under the Navy, the Coast Guard appropriation can be used to the limit of the amount and after that the Navy appropriation is drawn upon.” As he did in the previous meeting, Hunnewell again brought up the issue of inadequate shipbuilding facilities. Later in the meeting, Admiral Winterhalter asks if there is any priority given to the Department of the Treasury and suggested that the Navy could put in a plea for priority, to which Admiral Badger concurred.¹¹⁵

¹¹⁴ *Coast Guard Cutters*, 8 December 1917, 1-2, PHGB. It is difficult to discern the proposed fleet mixture for the 240-foot and 165-foot cutters. The two-three fleet mix was mentioned in both the 12 November 1917 meeting as well as the 8 December 1917 meeting, but Hunnewell refers to this as an “alternate scheme.”

¹¹⁵ *Ibid.*, 3, 6.

Winterhalter, as he did in the previous meeting, offered his criticism of the cutters deployed to Europe. “The whole thing arose from those vessels over there now that seem to be insufficiently armed and had insufficient speed.” He suggested building five of the 240-foot cutters, as opposed to two 240-foot and three 165-foot cutters, stating that they would be a better addition to the Navy’s patrol forces. He went on to say, “We should ask the Treasury Department to adapt these things primarily for war and make such additions as may be necessary for peace.”¹¹⁶

During the hearing, the board also inquired about structural protection, watertight integrity, and ammunition stowage and handling—all critical aspects of warship design. Hunnewell explained that ammunition would be moved using davits and whips. An ammunition hoist would be too “elaborate” and costly. Winterhalter suggested that adding structural protection may be difficult on such a small vessel, and Badger implied that it may also delay construction. To this he said “We want to get them as quickly as possible.” Answering the inquiry Hunnewell explained that there would be ten watertight bulkheads and a double bottom on the machinery space. Questioning the cutter’s suitability for convoy work, Rowan asked about the speed and endurance. Hunnewell reassured him that the cutters would be able to make open ocean transits and that they could cruise at a speed of 10-12 knots with an endurance of 4,000 to 5,000 nm.¹¹⁷

The 18 December meeting underscores the Navy’s interest in the Coast Guard building ships that would be useful for warfighting purposes—which makes sense given

¹¹⁶ *Coast Guard Cutters*, 8 December 1917, 1-2, PHGB, 4.

¹¹⁷ *Ibid.*, 5-6.

that the U.S. was now a belligerent in World War I. The specific questions to Hunnewell regarding the ammunition handling systems, structural protection, speed, and endurance are indicative of the Navy's intention to augment the fleet. Since the six cutters that were serving in the European theater during this time were conducting convoy escorts and engaged in the anti-submarine warfare, the General Board envisioned the new cutters being used in the same fashion. There is, however, no mention during either of these hearings about depth charges or Y-guns. Perhaps they were part of the design or because of the relative ease of installing these armaments.

Hunnewell aimed to build simple, low-cost cutters. All the things that would make the cutters better warships added cost, complexity, and, more importantly, weight. The General Board understood the capabilities the Coast Guard needed for the new platforms, but the board members were candid in conveying the Navy's interest. That is not to say they did offer their help, however. Badger stated that the board would recommend more funding. Although Winterhalter bluntly criticized the cutter fleet, he also agreed to put in a recommendation to prioritize the new cutters' production. The General Board was not entirely looking out for Navy's interest. It also had the Coast Guards' interests in mind and assisted Hunnewell in designing and building cutters with better warfighting capabilities.

Another meeting was held regarding the 240-foot *Tampa*-class cutters on 5 June 1918. Present were Badger, Winterhalter, Shoemaker (recently promoted to rear admiral), Barnett, and Hunnewell. The topic of this meeting was a comparison of the Coast Guard Cutters with Navy gunboats #21 and #22. The subject gunboats were commissioned as the *Asheville* and the *Tulsa*. Both of these ships would serve in the Asiatic Fleet, and

World War II. The *Asheville* was sunk by Japanese warships near Java on 1 March 1942, with a loss of 160 crew members, the only survivor died as a POW.¹¹⁸

Badger began the meeting by asking Hunnewell to compare the displacement, guns, and speed of the cutter and gunboat designs, but first asked the status of the contracts for the cutters. Hunnewell said that there are several shipyards able to build the vessels, but the projected cost was now \$700,000, totaling \$3.5 million. He added that Admiral David Taylor, the Navy's chief constructor, was reluctant to approve of the shipbuilding program until the Navy appropriation bill passed, but that perhaps the General Board could assist moving their production forward. This implies that the ships were built with Navy funds. During the discussion, Winterhalter and Hunnewell refer to the building program as consisting of five cutters, showing that the Coast Guard was moving forward with Winterhalter's suggestion to build five 240-cutters made in the 8 December 1917 meeting.¹¹⁹

Comparing the gunboats and the cutters, Hunnewell said that gunboat #21 design carries three four-inch guns, and the cutters three five-inch guns, along with an anti-aircraft gun. He added that the cutter's forward gun is on a raised platform, meaning Rowan's recommendation from the 8 December 1917 meeting was incorporated into the design. Hunnewell identified a substantial speed difference between the two classes, with the gunboat's speed at 12 knots and the cutter's at 16 knots. The gunboat had the

¹¹⁸ *Comparison Between Gunboat #21 and Proposed Coast Guard Cutters*, 5 June 1918, 1, PHGB; Silverstone, 167-168.

¹¹⁹ *Comparison Between Gunboat #21 and Proposed Coast Guard Cutters*, 5 June 1918, 1, PHGB, 5.

advantage in endurance with a range of 8500 nm, compared with the cutter's 7000 nm. The gunboats would have a single screw powered by a reciprocating engine with a small-tube water tube boiler providing steam. The cutters would also be single screw but powered by a geared turbine with a large-tube water tube boiler providing steam.¹²⁰

After Hunnewell provided the comparison, Winterhalter asked the reason for the \$500,000 higher price for the gunboat over the original \$350,000 estimate for the cutter.

To answer this inquiry, Hunnewell stated:

Gunboat #21 has extensive double bottom with many watertight subdivisions above the bottom throughout. The ammunition handling, ship control from the bridge and conning tower, winches, accommodations, such as living spaces, commissary spaces, hospital, and other conveniences, are more extensive than custom require for the Coast Guard cutters. [cutters]36-40 are of the simplest possible commercial type, with double bottom minimized to cover the spaces below the boiler room and engine room, sub-divisions elsewhere being obtained by simple thwartship [sic] bulkheads extending upward to watertight berth deck. The fittings for conning ship, the living spaces, the commissary spaces, the storerooms, are made as essential for a cruising cutter, only. The fitting of a single mast somewhat reduces top hamper and weight aloft. The essential feature which reduces cost, however, is the simplification of the structure and the simplification of machinery installation.

Hunnewell went on to elaborate on the crew accommodations, saying that the cutter was designed for a crew of 10 officers and 75 enlisted but could accommodate the 250 men that the General Board requested. He added that the cutter would carry enough provisions for three months.¹²¹

Hunnewell continued explaining the details of the cutter. Based on input from the General Board and the Bureau of Ordnance, the cutter would carry 200 rounds of

¹²⁰ *Comparison Between Gunboat #21 and Proposed Coast Guard Cutters*, 5 June 1918, 1, PHGB, 3.

¹²¹ *Ibid.*, 4-5.

ammunition for each of its five-inch guns, or 600 rounds. It would be equipped with a 6,000 per-day evaporator, a five-kilowatt radio, day and night signaling apparatus, a submarine signal receiver, two 30-inch searchlights, an ice machine, and six 30-foot small boats. Hunnewell concluded by telling the board that if the ships were to be built by the Newport News shipyards, they could be completed by December.¹²²

This meeting shows the several of the General Board's recommendations were incorporated into the 240-foot cutter design, including the crew accommodations and the raised platform for the forward gun. The discussion of funding and Hunnewell's request for the General Board to place a priority on building the cutters shows the board's influence on the shipbuilding process. The meeting also revealed some of the more technical aspects of the 240-foot cutter. Hunnewell again referred to the simplicity of the cutters when comparing them to the Navy's gunboat. This simplicity comes at a cost in hull protection and watertight subdivisions but substantially reduces the costs. While the length and displacement of the gunboat and the cutter were nearly the same, 240-feet and 1600 tons, the addition of the geared turbine on the cutter and the differences in hull design provided a 4-knot speed advantage to the cutter. Even with less protection than the gunboat, the cutter design seemed to better meet the General Board's requirements.¹²³

On 17 June 1918, the General Board met with Naval Constructor Robert Stocker, the designer of the Eagle Boats, built by Ford Motor Company. This hearing, presided by Winterhalter, covered many shipbuilding programs, including gunboat #21 and the 240-

¹²² *Comparison Between Gunboat #21 and Proposed Coast Guard Cutters*, 5 June 1918, 1, PHGB, 5-7.

¹²³ *Ibid.*, 4.

foot Coast Guard cutters. Discussing the cutters, Winterhalter conveyed that they were needed as soon as practicable, and asked Stocker to give a status update. Presumably referring to Chief Constructor Admiral Robert Taylor, Stocker said: “I think the Chief had some talk with Captain McAllister about them.” Winterhalter went on to explain that the cutters were estimated to reach speeds of 16 knots and were to be equipped with a heavier battery than gunboat #21. In contrast, the gunboat was only estimated to have a top speed of 12 knots, even though the dimensions are nearly the same. Pointing out the limited double bottom hull used on the cutters, he suggested that gunboat #22 should be designed to accommodate a heavier battery and achieve better speed.¹²⁴

The discussion shifted to the prospects of building the ships. Winterhalter conveyed that building the cutters was a quick way to add to the Navy fleet, and that there was potential for several yards to build them in nine months without interfering with other programs. Stocker expressed doubt they would not interfere with other programs because he did not know of a shipyard large enough that was not already busy with other projects. As the hearing concluded, Badger reiterated the need to revise the design of gunboat #22 to make it “more useful” than gunboat #21.¹²⁵

In this hearing, the General Board advocated on behalf of the Coast Guard to get the 240-foot cutters built. The Navy shipbuilders were reluctant to support the program for fear that it might interfere with their shipbuilding programs. The General Board’s

¹²⁴ *Building Program*, 1919, 17 June 1918, 4-5, PHGB; Frank Cianfone, “The Eagle Boats of World War I,” U.S. Naval Institute *Proceedings* 99, no. 6 (June 1973): 76, accessed 14 April 2020, <https://www.usni.org/magazines/proceedings/1973/june/eagle-boats-world-war-i>

¹²⁵ *Building Program*, 17 June 1918, 6-7, 17, PHGB.

viewed the cutters as a quick means to add to the fleet. The cutters' better speed and armament made it a more attractive option than the gunboat design, so much so that they advocated for redesigning the latter. In other words, the Coast Guard designed a better ship, and the General Board saw it as a more practical asset than the Navy gunboat and looked to incorporate its design elements.

The General Board did not meet again to discuss Coast Guard cutters until 24 August 1926. Present at the hearing was Admiral A.T. Long, Admiral Charles B. McVay, Constructor Frederick A. Hunnewell, and representatives from the Bureaus of Ordnance, Construction and Repair, and Engineering. The purpose of the hearing was to discuss the military characteristics of the Coast Guard's forthcoming 250-foot Lake-class cutters. Coast Guard Commandant Admiral Frederick C. Billard meant to acquire these cutters to carry out regular Coast Guard duties, rather than prohibition enforcement.¹²⁶

The proposed 10 cutters were designed with a cruiser stern and a high freeboard to better handle heavy seas. They would also feature an auxiliary turbine-generator for better efficiency at lower speeds. The first five were the *Chelan*, *Ponchatrain*, *Tahoe*, *Champlain*, and *Mendota*, built by Bethlehem Shipbuilding Corporation in Quincy, Massachusetts, and commissioned in 1928 and 1929. The *Itasca*, *Sebago*, *Saranac*, and *Shoshone* were built by General Engineering in Oakland, California. The last cutter of the class, the *Cayuga*, was built by the United Drydock yard in Staten Island, New York, and launched in 1931. All of the Lake-class cutters would eventually be transferred to the

¹²⁶ *New Coast Guard Cutters*, 24 August 1926, 1-4, PHGB. Constructor Hunnewell's Rank was listed as Lieutenant Commander in the list of attendees.

British Government in 1941 as part of the Lend-Lease Act.¹²⁷ Cutter *Chelan* is shown below in Figure 8.



Figure 8. *Chelan*, 250' Lake-class Cutter

Source: Coast Guard Historian's Office, *U.S.C.G. Cutter Chelan*, 1928. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

The General Board, having consulted with the Bureaus of Ordnance and Construction and Repair, initially proposed mounting three five-inch guns, two three-inch anti-aircraft guns, and two three-pounder guns for line throwing. Hunnewell conveyed

¹²⁷ Johnson, 114-116, 182-184.

the Coast Guard's preference for six-pounders, even though they would interfere with the aft batteries. He explained the practicality of the line throwing guns and the need to mount them aft by relaying a recent case where the cutter *Tampa* backed into heavy seas to pass a line to a stricken vessel using its line throwing gun. In a compromise, the aft five-inch guns would not be mounted during peacetime, and that the six-pounders would be removed to make space for wartime armaments. The six-pounders required slight modifications to the superstructure design. The gun arrangement was also adjusted so that only one three-inch anti-aircraft gun would be mounted in peacetime to provide crew training opportunities.¹²⁸

Hunnewell explained to the board that the cruising speed of the 250-foot cutters was 11.5-12 knots, with a maximum speed of 16.5 knots and a 7000 nm range. The design for the propulsion plant was boilers and electric drive motors. The vessel was estimated to displace 1800 tons. McVay asked whether the range could be increased to 8000 nm, to which Hunnewell expressed doubt. He reasoned that to increase the range meant increased weight and decreased top speed. Captain L. B. McBride, Bureau of Construction and Repair, suggested adding extra tank capacity and that the cutter could simply carry less fuel to achieve its top speed. Hunnewell theorized that they could expand fuel capacity by using the double-bottom cofferdam to carry more fuel in wartime. The tanks would not be piped to transfer oil. This would prevent crewmembers from using them during peacetime and reducing the top speed.¹²⁹

¹²⁸ *New Coast Guard Cutters*, 24 August 1926, 1-6, PHGB.

¹²⁹ *Ibid.*, 6.

Given the experience of supplementing cutter crews during World War I, crew berthing was an important consideration. The vessel design included accommodations for 80 crew members, but the General Board expressed a need to carry an additional 35 crewmembers during wartime. Hunnewell confirmed the feasibility of accommodating the extra crew compliment and explained there were plans for 10 officer staterooms.¹³⁰ The ability to accommodate additional crewmembers would ease the transition from peacetime to wartime operations.

The cutters were designed with three magazines, and Admiral Charles C. Bloch, Chief of the Ordnance Bureau, suggested that they could carry 250 rounds for each five-inch gun, an increase of 50 rounds over the 240-foot *Tampa*-class cutters. For the anti-aircraft guns, Bloch suggested 300 rounds per gun, 100 rounds more than the *Tampa*-class. McVay expressed some consternation with the magazine arrangement because a single magazine would service both of the aft 5-inch guns. The Bureau of Ordnance agreed to work directly with the Coast Guard for the proper arrangement of the magazines to best service the batteries and incorporate them into the design.¹³¹

The hearing on the Lake-class cutters is more concise than the previous three hearings on the *Tampa*-class and *Escanaba*-class cutters. This efficiency is no doubt related to having representatives from the pertinent Navy bureaus at the hearing. Funding and shipbuilding priorities were not discussed, indicating that there were fewer funding constraints and ample shipyard capacity. Like previous meetings, the General Board is

¹³⁰ *New Coast Guard Cutters*, 24 August 1926, 1-6, PHGB, 4-5.

¹³¹ *Ibid.*, 6.

prescriptive in the types of armament for the cutters and offers more input into the ammunition stowage. The importance of the cutters range is an important topic, likely because the Navy's intent to use the vessels for convoy work. Again, Hunnewell was faced with balancing the Navy's wartime requirements with the Coast Guard's regular missions, and he makes an inventive compromise by repurposing the cofferdams to carry extra fuel.

The last General Board hearing with the Coast Guard took place on 22 July 1931, and included some notable participants. Commander Russell R. Waesche, the future Commandant of the Coast Guard who led the service during World War II. Additionally, Captain Lewis Coxe, OpNav War Plans Division, was also listed as present. Admiral Mark L. Bristol presided over the hearing, and other attendees include Admiral Blakely, Captain Williams, Captain Greenslade, and of course Constructor Hunnewell.¹³²

The 165-foot *Thetis*-class cutters were the main topic of this meeting, not to be mistaken with the 165-foot *Escanaba*-class cutters discussed 14 years earlier during the 12 November 1917 hearing. Bristol began the meeting and said "we are quite interested in taking up this work of giving you advice as to the armament of these cutters, especially as in time of war the Coast Guard becomes automatically a part of the Navy and therefore in peace we should prepare for the use of the Coast Guard by the Navy under those

¹³² *War Armaments for New Coast Guard Cutters*, 22 July 1931, 1, PHGB.

circumstances.” This statement concisely sums up the value added by the General Board hearings to the Coast Guard’s shipbuilding programs.¹³³

When asked about construction progress of the 165-cutters, Hunnewell explained that the first-in-class was to be completed in November of 1931. The contract was set for seven cutters, but the Secretary of the Treasury expected to build a total of nine. The cutter would be equipped with two 650hp diesel engines and displace 300 tons, a fraction of the *Escanaba*-class’s 1000 tons, giving these ships an impressive speed of 16-17 knots. Coxe informed the board that the vessels were to be used in anti-submarine warfare, a more capable replacement for the Eagle Boats. Although they were intended for anti-submarine warfare, they were not to be equipped with Y-guns due to the added weight.¹³⁴

The cutters were designed to carry one three-inch 23 caliber gun, and two one-pounders. Bristol asked why they would not be mounted with the three-inch 25 caliber gun. Hunnewell conveyed the need for something louder than a one-pounder for conducting warning shots in counter-smuggling operations and that he initially intended to use the three-inch 25 but compromised with the three-inch 23 due to weight. Admiral Bristol asked if two six-pounders had been considered, to which Commander Waesche replied that the six-pounder is becoming obsolete and that the Coast Guard intended to reduce the variety of armaments on its ships. Waesche explained the process for obtaining guns from the Navy, how the Coast Guard took them on loan from the Navy,

¹³³ *War Armaments for New Coast Guard Cutters*, 22 July 1931, 1,4, PHGB; Silverstone, 359. Constructor Hunnewell states that the displacement of the new cutter was to be around 300 tons, which corresponds with the *Thetis*-class.

¹³⁴ *War Armaments for New Coast Guard Cutters*, 22 July 1931, 2-4, PHGB.; Johnson, 116; Silverstone, 355.

and who retained the titles. The Coast Guard turned over the few guns it owned to the Navy to simplify record keeping.¹³⁵

Bristol then inquired if the Coast Guard had considered using the new machine gun under development, the 1.1 75 caliber gun. Waesche expressed some concern with this type of gun and said that crewmembers would be inclined to waste ammunition and they might “do more damage than we wanted to do.” As a compromise, Waesche suggested that the cutters could mount one one-pounder and one of the 1.1 type, this would suit the Coast Guard’s mission needs and allow the crew to familiarize themselves with the new machine gun. Bristol posits the overall intent would be to arrange the cutters to mount four guns and depth charges for wartime operations, but that in peacetime to only equip them as necessary to facilitate training. Waesche agreed and said that this had been the policy on previous cutters.¹³⁶

Bristol offered some criticism for attempting to incorporate armament so late in the design process. At this point, the cutters were already under construction, making it difficult to arrange the armaments the Navy desired and limiting how the cutters could be employed. Instead, Bristol said, “now it will have to be something of a compromise.” Greenslade and Coxe both agreed that the three-inch 23 and the three-inch anti-aircraft gun were becoming obsolete. Bristol then recommended that structural modifications be made to mount two three-inch 50 calibers, four to six 1.1s and 50 caliber machine guns, depth charge racks, and Y-guns for wartime. Various arrangements and gun positions

¹³⁵ *War Armaments for New Coast Guard Cutters*, 22 July 1931, 4-6, PHGB.

¹³⁶ *Ibid.*

were discussed, and Hunnewell was mostly agreeable but expressed concern about the added weight. Finally, when Bristol pressed the issue of mounting the three-inch 50 calibers Hunnewell responded with, “We don’t want to do that. Please don’t ask us to spend money or add weight.” Greenslade further cautioned that adding all the armaments suggested may not be feasible due to the crew required to operate them.¹³⁷

Hunnewell eventually agreed to provide the Navy with a report detailing whether the decks and hull structure can accommodate the three-inch 50 caliber guns. Admiral Bristol requested Hunnewell produce a detailed plan on necessary structural modifications to mount the wartime armaments, as well as the needed crew accommodations and storage for additional provisions, as well as the associated weights. Hunnewell objected, saying he thought the Bureau of Construction and Repair would do this and that his staff was very small. Admiral Bristol then explained that Hunnewell’s knowledge of the design meant that he was the best person to develop such a report. Bristol then detailed a process for incorporating wartime armaments in the cutter designs during inception. First, the Coast Guard would develop an initial plan for gun arrangements, then submit this to the General Board for review; if the General Board concurred, they would then be sent to the Bureau of Construction and Repair for study.¹³⁸

To aid Hunnewell in developing the report, Greenslade suggested setting minimum and maximum requirements for the armaments. Bristol retorted, “when you

¹³⁷ *War Armaments for New Coast Guard Cutters*, 22 July 1931, 4-6, PHGB, 7-10. Bristol refers to Hunnewell as “Captain Hunnewell,” no rank is given on the list of meeting participants.

¹³⁸ *Ibid.*, 11-12.

give a constructor the minimum, he will take the maximum.” Coxe offered the perspective of OpNav, War Plans Division, and emphasized the importance of preserving the maximum speed of no less than 16 knots. The board then discussed the impact on weight, draft, and speed with the added armament. Regarding the added weight of provisions, Bristol pointed out that, “The patrol boats usually go out for a week and they do not take very much with them. They work from a base a week at a time. Sometimes they did not need very much because nobody ate anything on the trip and everything they ate they gave up. Those ships in the English Channel had anything but a pleasant trip.”¹³⁹

The discussion shifted to ammunition stowage. Bristol suggested 50 rounds for each three-inch 50. With no ammunition stowage aft, the shells would have to be transported from ready stowage out to the aft deck. Hunnewell reminds the board that depending on how much ammunition the cutters carried, there may be a loss in speed. Admiral Bristol told Hunnewell that they would provide him with the ammunition requirements, and then he is to provide them with the weight.¹⁴⁰

Like all of the previous hearings, the competing priorities of speed, armament, and affordability were carefully deliberated. The broader lesson from this hearing is, by not incorporating Navy requirements into the design process early, the Coast Guard was required to go back to the drawing board, and the Navy was limited in how they could employ the ships. This hearing set out a process for incorporating wartime requirements into the design process early, which would save time and give the Navy a better platform

¹³⁹ *War Armaments for New Coast Guard Cutters*, 22 July 1931, 4-6, PHGB, 13-14. Admiral Bristol’s description of patrol boat operations is still true today.

¹⁴⁰ *Ibid.*, 14-15.

for wartime use. It seems as if this revelation was too late; however, as there are no further hearing transcripts from the General Board that denote this process was followed for future designs.

There is a notable absence of any hearings related to the Coast Guard's 327-foot Treasury-class cutters launched during 1936-1937. These ships were the Coast Guard's premier cutter class of the era, some of which served for 50 years. The reason that the General Board did not hold any hearings on the Treasury-class cutters is because their design was based on the Navy's *Erie*-class gunboat, which they discussed in detail during a hearing on 17 June 1932. Like previous the hearings on the Coast Guard cutters, the primary topic was armaments. The gunboats would displace 2000 tons and achieve a 20-knot top speed using diesel engine propulsion. The proposed armament was four six-inch guns, anti-aircraft machine guns, and depth charges, as well as listening devices. There were many proposed roles for the gunboats, including anti-submarine warfare and convoy escort duties. Another proposed peacetime role for the gunboats was that they could be used as Coast Guard cutters. During the hearing, it is mentioned that the Coast Guard was interested in the design and cost of the vessel, as it might suit the agency's missions.¹⁴¹

There were substantial cost savings to have the Treasury-class cutters built in Navy shipyards as a modified *Erie*-class. Hunnewell abandoned his original design, which was intended to be an improved version of the 250-foot Lake-class cutter and adapt the *Erie*-class design for Coast Guard work. The original armament was two five-inch 51 caliber guns and three six-pounders. An additional five-inch 51 caliber gun and

¹⁴¹ *Characteristics of Gunboats*, 17 June 1932, 16-18, PHGB.

three-inch 50 caliber machine guns were added in 1941.¹⁴² Although there is no record of the General Board meeting to discuss the Treasury-class specifically, their influence was already conveyed via the *Erie*-class gunboat design. A separate hearing would have been unnecessary. Cutter *Bibb* is shown under construction in Figure 9.

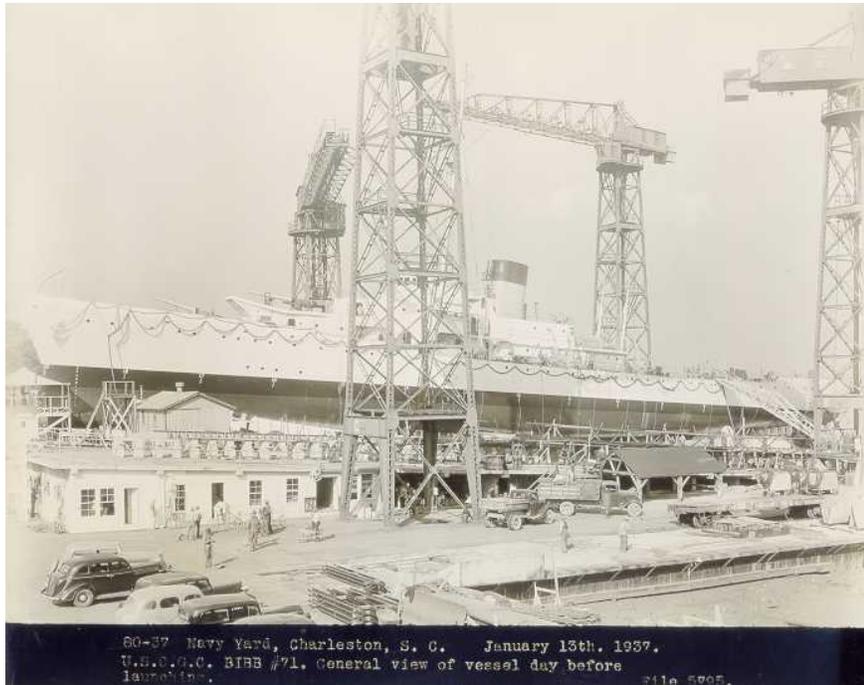


Figure 9. Cutter *Bibb*, 327' Treasury-class Cutter, Under Construction

Source: U.S. Coast Guard Historian's Office, *U.S.C.G.C. BIBB #71, General view of vessel day before launching, 1937*. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

Meeting records show that the General Board met eight times in September-October of 1932 to discuss “Consolidation of the Coast Guard with the Navy,” the

¹⁴² Johnson, 144, 154-155; Silverstone, 168, 354.

corresponding serial is number 1582. Other topics discussed during this period were “Characteristics of Gunboats,” corresponding serial number 1577; “Gunboats. Building Policy”, corresponding serial number 1587; and “Coast Guard and Marine Corps in relation to naval and land effectives,” corresponding serial number 1521-DD. The studies related to these topics were not obtained for this project and are avenues for future research. However, the minutes themselves show that the General Board was involved in the planning process for incorporating the Coast Guard into the Navy.¹⁴³

The General Board played an influential role in developing the Coast Guard’s warfighting capabilities during the interwar period. Specifically, the board directly influenced the design of four cutter classes: the *Tampa*-class, *Escanaba*-class, Lake-class and *Thetis*-class. The board’s influence on the design of the Treasury-class cutters was inherent to the *Erie*-class, which their design was based on. Although there is no record, it is surmised that the board indirectly influenced the design of the *Owasco*-class cutters, since it was based on the earlier Lake-class design. It is important to note that the General Board’s recommendations were not always practicable. Both the *Tampa*-class and Lake-class cutters were unable to accommodate the addition of a third 5-inch gun during wartime due to the added weight, and instead 3-inch guns were added.¹⁴⁴

The relationship between the Coast Guard and General Board was not a one-way street. While the General Board influenced the Coast Guard’s building programs,

¹⁴³ Meeting Minutes: 29 September 1932, 7 October 1932, 10 October 1932, 11 October 1932, 12 October 1932, 13 October 1932, 14 October 1932, 18 October 1932, 28 October 1932, PHGB.

¹⁴⁴ Johnson, 179, 218; Silverstone, 355.

conversely, the *Tampa*-class cutter influenced the Gunboat #22 design. In comparing the two designs, the General Board saw more practicality in the cutter design and thus called for a redesign of Gunboat #22. This example shows constructor Hunnewell's exceptional skill at designing Coast Guard cutters.

The recurring themes throughout all the hearings are the competition between added armament, speed, endurance, simplicity, and cost. With the Coast Guard's constrained resources, Hunnewell endeavored to reduce costs through simple designs. This came at the expense of endurance, hull protection, and watertight subdivision. The Navy's desire for increased armament added weight and complexity to the design. The design compromises made to carry additional armament and fuel show how both the General Board and constructor Hunnewell balanced these competing requirements to develop ships that were suited for both Coast Guard missions, as well as Naval wartime operations.



Figure 10. Constructor Frederick A. Hunnewell

Source: U.S. Coast Guard Historian's Office. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

The distinction made between wartime and peacetime armaments was an important aspect of designing the cutters. Limiting the armament to the minimum extent necessary, meant that they were able to perform peacetime missions and provide for crew training while ensuring that the cutters were not over-encumbered and still able to prepare for wartime duties. This illustrates one aspect of a broader challenge for the Coast Guard—maintaining proficiency in multiple mission areas. Waesche's idea to limit the variety of guns used aboard cutters showed excellent initiative to simplify sustainment for the weapon systems and standardize training for cutter crews.

The most significant finding of this analysis is the importance of establishing the Navy's requirements in the design process early. The Navy's input is crucial to effectively leverage the cutters during wartime, but during the interwar period, wartime requirements were not effectively incorporated into the design process until much too late. The Coast Guard was not inclined to design its cutters around the Navy's need for more weapons systems, nor was the Navy keen on shoehorning its guns into cutter designs. Had the deliberations taken place earlier in the design process, there may have been more opportunity to add greater warfighting capabilities to the cutters without compromising other requirements.

The hearings of the General Board offer an interesting perspective on the Coast Guard's dual peacetime and wartime roles and show the challenge of balancing these mission sets. Even though the Coast Guard and Navy's requirements were not always aligned, the board undoubtedly assisted the Coast Guard in building better, more capable ships, and played a big part in how the service would go on to fill its wartime role in World War II.

CHAPTER 5

COAST GUARD AND THE WAR PLANS

The purpose of this chapter is to explore how early war-planning efforts incorporated the Coast Guard. The Navy's strategic planning before the 20th Century was inconsistent at best and there was no permanent entity assigned for the task. The 1898 Naval War Board, which later became the General Board of the Navy, and the Naval War College were the first permanent institutions to engage in strategic planning. Strategic planning was the General Board's primary focus during the first decade of its existence, and a Second Committee was established to develop war plans and work in concert with the Naval War College. In 1915, the newly established Chief of Naval Operations took control of the Navy's war planning efforts.¹⁴⁵

Revenue cutters were included in the Navy's war plans as early as 1896. The plans preceding the Spanish-American War included the cutters *Winona*, *Morrill*, *Hamilton*, *Forward*, *Galveston*, and *Fessenden* as part of the South Coast Squadron; and the cutters *Woodbury*, *Hamlin*, *Dallas*, *Dexter*, *Manhattan*, *Boutwell*, *Crawford*, and *McLane* with no discernible assignment. No explanation of the cutter's duties were explained in these plans, instead they were simply listed with their tonnage, draft and roman numerals denoting the number of guns equipped. The columns for speed and armor were left blank.¹⁴⁶

¹⁴⁵ Kuehn, *America's First General Staff*, 2-5; Miller, 26-27.

¹⁴⁶ National Archives and Record Administration, Washington, DC, and College Park, MD, Record Group 38 (RG38), Scholarly Resources, Inc., Wilmington, DE, Strategic Planning in the U.S. Navy: Its Evolution and Execution, 1891-1945 (hereafter referred to as USN Strategic Plans), *War With Spain 1896*, "U.S. Ships, Habana

A 1916 version of War Plan Black, developed to prepare for war with Germany, was more descriptive. The plan called for a defense in-depth with the innermost layer consisting of the shore patrol made up of life saving station and light house personnel who acted as coastal sentries. Next was the “Coast Defense Division or Port Defense” that was made up of older battleships, torpedo boats, submarines, and Naval Militia vessels; and the “Harbor Patrol Division” that consisted of smaller cutters, lighthouse tenders, tugs, and pilot association boats. The next layer was the “Defensive Sea Areas” which were mined and protected by Army artillery. The Harbor Patrol Division patrolled within the Defensive Sea Areas and assisted friendly or neutral ships to safely navigate through the mine fields. Larger cruising cutters served as scouts and conducted patrols outside the Defensive Sea Area. Requirements for smaller ports were three vessels, with a provision to assign additional scout vessels as needed. The port of New York was used as a template for large ports. It included two defensive sea areas with seven assigned vessels, in addition to six scouts, and nine coastal defense vessels.¹⁴⁷

War Plan Black included tables detailing the assignment of Coast Guard, Lighthouse Service, Naval Militia, and Coastal Survey vessels to Naval Districts. Vessels were assigned according to capability as Harbor Patrol Vessels, District Scouts or Sea

Squadron,” .2; “U.S. Ships, South Coast of Cuba Squadron,” .4; Evans, 165-168. Aside from the cutter McCulloch, which was attached to Admiral Dewey’s Fleet during the Battle of Manilla Bay, revenue cutters were assigned as picket ships for the blockade of Cuba during the war.

¹⁴⁷ *Black War Plan*, “Mobilization of Naval Vessels for a Campaign in the Atlantic,” December 1916, 219-222, USN Strategic Plans. Although this document is dated 1916, the original draft is likely much earlier. The “revenue cutter vessels” and “Life Saving Service” are referred to separately, but the document uses the term “Coast Guard” as well.

Patrol, or Coast Defense Vessels. Another section included the fleet composition “For War in the Atlantic,” which consisted of combatants and supply ships. Interestingly, the Coast Guard cutters that deployed to Europe during World War I; the *Algonquin*, *Manning*, *Tallapoosa*, *Tampa*, *Ossipee*, and *Yamacraw*; were not assigned to the battle fleet but instead as District Scouts and Sea Patrol vessels. This indicates that the decision to deploy these vessels was made later than December of 1916.¹⁴⁸

These early plans provided a detailed scheme for how Coast Guard cutters would be used in local defense operations. Later plans did not provide nearly the same level of detail, instead deferred them to the contributory plans. Attention will now shift to examining the inclusion of the Coast Guard in War Plan Green and War Plan Orange. These plans underwent numerous revisions during their development. Exploring the many variations and updates to these plans is beyond the scope of this study. Instead, the aim is to provide the reader with a broad understanding of the Navy’s strategic intent to integrate the Coast Guard during war by focusing on the key concepts of mobilization, organization, and employment.

War Plan Green was a contingency to protect U.S. interests in case of a revolutionary war in Mexico. The plan called for tailored responses to three scenarios. The first was a limited response that called for seizing border areas and ports in order to “establish order and a stable government throughout GREEN, with as little interference with the peaceful pursuits of the native population.” The second scenario was predicated

¹⁴⁸ *Black War Plan*, “Assignment to Vessels to Naval Districts and Local Defenses,” December 1916, 140 b-c; Composition of the “A”, “B” and “C’ Fleets for a War in the Atlantic, 219-222, USN Strategic Plans.

on a hostile Mexican Government and its goal was “expeditiously to gain control of Mexico City and Green communications, by military operations limited generally to those against Green Federal Forces.” The third and worst-case scenario assumed a complete collapse of the government and entailed a full-scale occupation of Mexico until order could be restored. The overall aim of the response was to “afford protection to the lives and property of American citizens . . . in cooperation, if practicable, with the recognized Green Government.”¹⁴⁹

War Plan Orange was predicated on war with Japan. The 1929 version of the plan assumed the neutrality of other countries and that the U.S. would fight Japan alone. The plan can be broken down into three phases. During Phase I, Japan would seize control of American bases and areas rich in natural resources in the western Pacific Ocean. Meanwhile, the U.S. Navy would begin amassing forces in the eastern Pacific. During Phase II, the U.S. would go on the offensive and mass forces in Hawaii. From there, U.S. forces would advance westward across the Pacific and dislodge Japanese forces from islands in the central Pacific and establish forward bases, eventually reestablishing a base in the Philippines. The U.S. would slowly strangle Japanese sea-lines of communication. Phase II would culminate with a Mahanian clash between the Japanese and U.S. fleets. During Phase III, the U.S. would establish more bases to support air and naval forces and tighten its blockade on Japan, eventually causing the empire to capitulate.¹⁵⁰

¹⁴⁹ Steven T. Ross, *American War Plans: 1919-1941*, vol. 1, *Peace Time War Plans 1919-1935* (New York: Garland Publishing, 1992), xii, 109-111; *American War Plans: 1890-1939* (Portland: Frank Cass Publishing, 2002), 136-137.

¹⁵⁰ Miller, 4; Ross, 142-143.

Although there were minor variations in the structures of War Plan Green and War Plan Orange, the formatting and content were much the same. These documents focused at the strategic level, and as mentioned many of the operational and tactical details were included in contributory plans. Details related to the Coast Guard were sparse, but there was enough information to understand the Navy's basic concept for leveraging the service during war. The area of mobilization will be examined first.

Mobilization is a vital aspect of war preparations and particularly important to how the Coast Guard under the DoN. Like War Plan Black, Plan Orange included the Coast Guard detailed the Coast Guard's local defense role; however, it omitted any mention of the mobilization process. War Plan Black included a brief statement in the section "When War is Imminent" that calls for "Draft into service, Naval Militia, Naval Reserve, and Coast Guard." The corresponding clause in Plan Orange only includes the Naval Militia and the Naval Reserve.¹⁵¹

Details regarding the mobilization process for the Coast Guard in War Plan Orange do appear in a 1929 version of the plan under General Measures for Mobilization. Provisions in this section were to be undertaken when war was declared. It states, "Secure the issue of an Executive Order directing the United States Coast Guard to operate as part

¹⁵¹ *Black War Plan*, "Assignment of Vessels to Naval Districts and Local Defenses," December 1916, 136-140c; *Orange War Plan*, "Assignment of Vessels to Naval Districts and Local Defenses," 4 April 1916, 95-102a, USN Strategic Plans. Page numbers are missing in parts of this section. Typed page numbers are crossed out, and alternate numbers are written in. The page numbers provided are based on the handwritten numbers and the sequence of pages in the microfilm.

of the Navy and subject to the orders of the SecNav.” The applicable section of War Plan Green (1930) reads nearly verbatim.¹⁵²

War Plans Green and Plan Orange both similarly outlined a gradual mobilization process consisting of Take Condition B, Take Condition A, and the declaration of war. Take Condition B was a posture assumed when the President informed the DoN of the possibility of war. In Take Condition B, all vessels and necessary supplies were moved to designated mobilization bases, and vessels not in commission and selected merchant vessels were outfitted for wartime duties. War Plan Green specified to “Inform the Commandant of the UNITED STATES COAST GUARD of the situation and request him to adopt, for the COAST GUARD, similar measures to the proceeding.” War Plan Orange did not specify any Coast Guard mobilization activities during this phase.¹⁵³

Take Condition A was assumed when conflict was probable. The language in this section differed slightly between War Plan Green and Orange, but the premise was the same. War Plan Green stated that “When the Navy Department is informed by the

¹⁵² *Orange War Plan*, “Assignment of Vessels to Naval Districts and Local Defenses,” 4 April 1916, 94-98; *War Plan Black*, “Mobilization Plan For A War In The Atlantic,” May 1916, 76; *Navy Basic Plan Green*, 1930, Part II, Ch. IV, 79; *Navy Basic Plan Orange*, 1929, Part I, Ch. 4, 93-94, USN Strategic Plans. In both Plan Green and Orange the section for General Mobilization defines mobilization as “Active and Open Preparation for War.” They explain that “A State of War is declared by the CONGRESS. The order to Mobilize does not authorize any Act of War; but, in the event of an act of war being committed by a Foreign Power against the Sovereignty of the UNITED STATES previous to a Declaration of War, it is the duty of the Senior Commander on the spot to take such action for the defense of his Command and for the National Interests as the situation may require and to report the action taken to Superior Authority without delay.”

¹⁵³ *Navy Basic Plan Green-One*, 1930, Part II, Ch. 3, 74; *Navy Basic Plan Orange*, 1929, Part I, Ch. 3, 77-79, USN Strategic Plans.

President that intervention in GREEN for the purpose of occupying and pacifying that country is possible in the near future, the Navy Department will send a secret ALNAV dispatch.” This section also called for notifying the Coast Guard and that the Commandant should take provisions like those under Condition B. Like Condition A, War Plan Orange did not include notifying the Coast Guard at this point in the mobilization process.¹⁵⁴

Related to the mobilization, Appendix V of War Plan Green included draft letters from the SecNav to the President and Commandant of the Coast Guard to facilitate the mobilization process. The letter to the President referenced the 1915 Coast Guard Act that instructed the service to operate as part of the Navy during war and recommended the following executive order: “Pursuant to the power vested in me by the Act of January 28, 1915, it is hereby directed that the Coast Guard shall from this date, until further orders, operate as part of the Navy, subject to the orders of the SecNav.” To the Commandant, the letter provided the following guidance:

A. You are directed to continue, until further orders, the interior administration of the Coast Guard in all respects the same as when operating under the Treasury Department. Your office will be known as Coast Guard Headquarters.

B. All Coast Guard administration officers and office forces will be retained in present quarters and will perform their present functions. Coast Guard general depots, supply, and repair stations, will be administered as heretofore by the Coast Guard.

The verbiage in the executive order gives unclear guidance on the Coast Guard’s command relationship with DoN. The executive order states that the Coast Guard is to

¹⁵⁴ *Navy Basic Plan Green-One*, 1930, Part II, Ch. 3, 76-77; *Navy Basic Plan Orange*, 1929, Part I, Ch. 3, 80-81, USN Strategic Plans.

operate “as part of the Navy” implying that it would answer to OpNav, yet it also says that the service is subject to the orders of SecNav.¹⁵⁵

How War Plans Green and Orange differed on when to notify the Coast Guard that a probable war is an important detail. Obviously notifying the service that war was probable and to undertake prudent mobilization efforts has the added benefit of increased readiness at an earlier date. The only plausible explanation for this difference is, perhaps, that the timing of Coast Guard mobilization was less critical in Plan Orange. The theaters of operations in a war with Mexico would be closer to the U.S. than the theaters of operation for a war with Japan were. It is unclear if this difference in the plans was calculated or merely an omission in Orange. Regardless, the 1929 version of War Plan Green provided much stronger consideration to the Coast Guard in the mobilization process. This was remedied in updates to Plan Orange.

The 1931 and 1932 updates to War Plan Orange offered additional information pertaining to the mobilization of Coast Guard Forces in Appendix II. It detailed that all Coast Guard Section Bases would come under control of the Naval Districts. All Coast Guard vessels, except for destroyers and cruising cutters, would be assigned to Section Bases. The Naval districts and assigned Coast Guard Liaison Officer were directed to provide “for the necessary increase in personnel and facilities of these Section Bases” during Take Condition B and A.¹⁵⁶

¹⁵⁵ *Navy Basic Plan Green-One*, 1930, Appendix V, 9-10, USN Strategic Plans.

¹⁵⁶ *WPL 16, Change No. 1*, November 1931, Appendix II, 2; *WPL 16, Change No. 2*, December 1932, Appendix II, 3, USN Strategic Plans.

Readiness upon mobilization and sustainment were integral parts of the War Plans. Also included in the mobilization measures of War Plans Green and Orange were stipulations that all naval vessels meet a standard condition of readiness, including Coast Guard and merchant vessels. Like Plan Green, Plan Orange directed that such vessels would have “Full allowances under all BUREAUS of all supplies, equipage and ammunition covered by allowances. Storeroom capacity of clothing and small stores, ship’s store stock and provisions, but not to exceed six (6) month’s requirements. Full Bunkers.” All necessary repairs were to be made upon mobilization and no alterations were authorized without the approval of OpNav.¹⁵⁷ Additionally, sustainment considerations for the Coast Guard were included in the Navy’s logistical estimates, showing the depth of planning needed to mobilize the service for war.¹⁵⁸

Another important aspect related to mobilization was included in War Plan Green, but not Plan Orange. A section pertaining to naval personnel in the Logistics Plan (Part III) stated, “Wherever the term ‘Naval Personnel’ is employed in the foregoing, such term will be construed to include Coast Guard Personnel where Coast Guard Forces comprise any portion of the Naval Local Defense Forces.” It is unclear why a similar notation was not made in War Plan Orange, but perhaps the drafters of this plan felt that

¹⁵⁷ *Navy Basic Plan Green-One*, 1930, Part II, Ch. 4, 86-88; *Navy Basic Plan Orange*, 1929, Part I, Ch. 4, 96, USN Strategic Plans.

¹⁵⁸ *Navy Basic Plan Green-One*, 1930, Part III, Ch. 3, 127, USN Strategic Plans. The Logistics Plan states, “Estimates of requirements of the Naval Forces (including Coast Guard Forces) considered in this CHAPTER, both for MOBILIZATION SUPPLY and for MAINTENANCE SUPPLY SUBSEQUENT TO MOBILIZATION, will be made by those charged with the preparation of the OPERATING PLANS.

this was implied and there was no need to include it. The clause is indicated of one of the primary roles assigned to the Coast Guard in both plans.

Appendix I and II of War Plans Green and Orange included information on the organization of Coast Guard cutters following mobilization. Appendix I provided an overview of the organization of forces into squadrons and divisions. In Appendix I of Plan Green, the destroyers operated by the Coast Guard were assigned to Destroyer Squadron One in the Gulf and Caribbean theater. Cutters assigned to the Gulf and Caribbean, and the Pacific Theaters, were organized into 12 Patrol Squadrons. The squadrons were comprised of a cruising cutter and several smaller vessels— a group of 12 75-foot, six 100-foot, or six 125-foot patrol boats. In Appendix I of War Plan Orange, only 12 of the destroyers were listed as part of Destroyer Squadron One, Divisions Three and Four. Destroyer Squadron Zero, to which the rest of the Coast Guard destroyers were assigned, was not listed in Appendix I.¹⁵⁹

Appendix II consisted of an index of vessels and tables. The index organized vessels by name, type, and assignment table. In the Plan Green index of Appendix II, all Coast Guard vessels, including destroyers, were listed in the same section. In Plan Orange, the Coast Guard destroyers were listed under U.S. Navy vessels. Following the index, the tables organized the ships into theaters or local defense forces under a specific

¹⁵⁹ *Navy Basic Plan Green-One*, 1930, Appendix I, 3-4, 9; *Navy Basic Plan Orange*, 1929, Appendix I, 4-5, ,10, USN Strategic Plans. In War Plan Green, odd numbered patrol squadrons were assigned to the Gulf and Caribbean theater, and even numbered patrols squadrons were assigned to the Pacific theater; Silverstone, 46-47, 51, 356-357. See Appendix A for more information on the destroyers operated by the Coast Guard.

Naval district. They were organized into columns specifying the name of the vessel, the sub-group, mobilization base, and day to be ready.¹⁶⁰

In War Plan Green, Coast Guard destroyers and cutters assigned to the Gulf and Pacific Theaters were directed to be ready to move on M day or M+5, meaning the day orders were received or five days after. All Coast Guard destroyers were designated as fleet scouts in the Gulf and Caribbean Theater. A note indicated that initial plans did not call for the reinstallation of torpedo tubes or depth charges for these destroyers. The Patrol Squadrons assigned to the Gulf and Caribbean, and the Pacific theaters were part of the “Control Force.” There were no plans to install depth charges on these vessels either, but they would receive an additional main battery and the patrol boats would receive machine guns. Initially, the larger cruising cutters would act as tenders to the smaller vessels in the squadron. Finally, Coast Guard Headquarters was given the discretion to choose which patrol boats would be assigned to each squadron.¹⁶¹

In War Plan Green, cutters not assigned to the Patrol Squadrons were assigned to Naval Districts as Local Defense Forces. These consisted mainly of patrol boats, harbor cutters, and a few older cruising cutters. An important note was included regarding Local Defense Forces. Commandants of the Naval Districts were directed to develop a District

¹⁶⁰ *Navy Basic Plan Green-One*, 1930, Appendix II, 1-18, 21, Table AAa-1, Table Ba-2; *Navy Basic Plan Orange*, 1929, Appendix I, 1-14, Table Ba-4, USN Strategic Plans. Sub-groups are signified by the letters A-E, and indicate vessels commissioned in the Navy, Navy vessels not in commission, vessels belonging to other government agencies, merchant vessels, and merchant vessels operated by the Merchant Marine.

¹⁶¹ *Navy Basic Plan Green-One*, 1930, Appendix II, 21, Tables AAa-1, 6-7, 10, 11, 15; Aba-1, 8-9, 12-13; *Navy Basic Plan Green-Two*, Appendix I, USN Strategic Plans. Note 7 reads: “Assignment of individual craft to the numbers called for by these Tables will be made by Coast Guard Headquarters.”

Operating Plan that may provide cause to amend the forces assigned. The note stated, “In this connection, attention is invited to the fact that the Naval District forces must be adequate, not only for the war operations required by Paragraph 2282, but for the routine activities of the District, including the peace time functions of the Coast Guard.”¹⁶² This clause was significant because, although subtle, it assigned responsibility of Coast Guard missions to Navy officers.

Like War Plan Green, Plan Orange called for a phased approach to deploying vessels. The destroyers assigned to Destroyer Squadron Zero would defend the 15th Naval District that covered the Panama Canal Zone and be ready to move on M+10. The destroyers assigned to Destroyer Squadron One would initially provide local defense in the 12th Naval District, covering the area of Northern California. After a few months, they would sail from the West Coast to be in Hawaii no later than M+150.¹⁶³

Many of the cruising cutters were assigned to the “Western Base,” a fleet forward operating base to established in Dumanquilas Bay on the western side of the Philippine island of Mindanao Island. The remaining cutters and patrol boats were distributed among the Naval Districts local defenses. Even some of the rumrunners seized during

¹⁶² *Navy Basic Plan Green-One*, 1930, Appendix II, Tables Ba-2, 1-2; Ba-4, 1,; Ba-6, 1, 3; Ba-8, 1-3; Ba-10, 1-2, 4; Ba-12, 1-2, 4; Ba-14, ,1-2; Ba-16, 1-2; Ba-18, 1-2; Ba-20, 1-2; Ba-22, 1, 3; Ba-24, 1-2, USN Strategic Plans; Silverstone, 352.

¹⁶³ *Navy Basic Plan Green-One*, 1930, Appendix II, 21; *Navy Basic Plan Orange*, 1929, Appendix II, 1-2, 15; Tables Aa 30-1, 6; Aa 150-1 -Aa 360-1, 1-2; Ba-2, 2-3; Ba-24, 1, 3, USN Strategic Plans. Vessels listed in Aa-1, Aa-2, Aa-3, Aa-4 were to be ready for movement on “M” day. These consist of vessels already in the Pacific and European theaters. Vessels listed in Aa 30-1 through Aa 30-9 were directed to be ready to move by M+30. Vessels listed in Aa 60-1 through Aa 60-8 were directed to be ready to move by M+60.

Prohibition were pressed into war service as local defense assets. Cruising cutters were assigned as tenders for the patrol boats bound for the 14th Naval District covering the Hawaiian Islands and the 15th Naval District that controlled the Panama Canal Zone. A greater complement of Coast Guard assets was assigned to these critical areas.¹⁶⁴

War Plan Orange went through numerous revisions throughout the years and incorporated additional cutters and incorporated Coast Guard aircraft. An update in November of 1931 included placeholders for seven unnamed 165-foot patrol boats, these were the *Thetis*-class cutters commissioned from 1931-1934. The *Thetis*-class cutters were later listed by name in a 1932 update, along with several of the new 250-foot Lake-class cutters. The *Escanaba*, the lead ship in the class, was listed in a December 1932 update barely a month after it was commissioned. Up until this point, the War Plans had been silent about Coast Guard aircraft, but the 1932 revision also included assignment of Coast Guard aircraft to the Local Defense Forces. The 1936 revision listed eight of the *Thetis*-class and six 125-foot cutters as “Taken over from Coast Guard,” but a later annotation indicated that they were still manned by coast guardsmen.¹⁶⁵

¹⁶⁴ *Navy Basic Plan Green-One*, Appendix II, 14-17, 21; *Navy Basic Plan Orange*, 1929, Appendix II, 1-2, 12-13, 15; Tables Aa 30-1, 6; Aa 150-1 -Aa 360-1, 1-2; Ba-2, 2-3; Ba-4, 2-3, 6; Ba-6, 1; Ba-8, 1; Ba-10, 1; Ba-12, 1; Ba-14, 1; Ba-16, 1; Ba-18, 1; Ba-22, 1; Ba-24, 1, 3; Ba-26, 1, 2; Appendix VII, 1, USN Strategic Plans; Willoughby, *Rum War at Sea*, 147-148, 165-170. The Coast Guard seized and put into service 232 vessels during Prohibition. Many of these vessels retained their original names. The vessels *Arrow*, *Chippewa*, *Elenora*, *Florence*, *Gavicta*, *Imp*, *Jackie*, *Lucky Star*, *Osprey*, *Seagull*, *Shark*, and *Star* are all listed in Appendix II in War Plan Orange. Several of the vessels are also listed in Appendix II of War Plan Green.

¹⁶⁵ *WPL 16*, Change No. 1, 1931, Appendix II, Table Ba-2, 2; Ba-18, 1; *WPL 15*, Change No. 1, 1932, Appendix II, 7.; Table Aa 60-1, 5; Aa 60-2, 1; *WPL 15*, Change No. 2, 1936, Appendix II, Table Aa 12-4, 2, 4, USN Strategic Plans; Silverstone, 353.

The 1938 update to War Plan Orange included changes to the mobilization process for the Coast Guard. It detailed how Coast Guard units will report to the Naval districts in which they are geographically located in accordance with the “Coast Guard Mobilization Plan.” How local defense requirements were met was left to the discretion of the District Commandants. Additionally, to Naval Air Station Pensacola it assigned “twin engine amphibians and twin engine flying boats which are capable of flight to that station.” The 327-foot Treasury-class cutters appeared in the index of vessels and were assigned as sub-chasers in the Panama Canal Zone, with further directions to “report to the Commander-in-Chief, U.S. Fleet, for duty” on M+45.¹⁶⁶

War Plans Green and Orange were devised for wars between the U.S. and one other belligerent. Toward the late 1930s, it was apparent that the next war would be much more complex. Germany reoccupied the Rhineland in 1936 and annexed Austria and parts of Czechoslovakia in 1938. Japan occupied Manchuria in 1931 and continued its conquest of China. U.S planning efforts shifted from the offensive, enemy-focused color plans, to defensive plans for the Western Hemisphere. These later plans, dubbed the Rainbow plans, included a variety of war scenarios, highlighting the uncertainty of this era. Despite the overwhelming uncertainty of what the next war would entail, the planners did accurately predict that it would not be fought solely between two powers.¹⁶⁷

¹⁶⁶ *WPL 16*, Change No. 6, 1938, Appendix II, 3, Table Ba-4, 1-2, USN Strategic Plans.

¹⁶⁷ Allan R. Millet and Peter Maslowski, *For the Common Defense: A Military History of the United States of America* (New York: The Free Press, 1994), 413-414.

Rainbow 1 called for the Western Hemisphere from the International Date Line in the west to Greenland in the east, north of 10-degrees South latitude. This plan assumed the U.S. would have no allies in the fight. Rainbow 2 was the same as Rainbow 1 but included the help of Britain and France. Rainbow 3 called for Western Hemisphere defense followed by an offensive against Japan. Rainbow 4 planned for a defense of the entire Western Hemisphere. Rainbow 5 planned for operations in Europe and Africa, and assumed the U.S. was allied with France and Europe.¹⁶⁸ To show the progression of war planning efforts and how they applied to the Coast Guard, this thesis will further analyze Rainbow 1 and Rainbow 5. These plans are organized much the same as War Plans Green and Orange. Like these earlier plans, the primary interest is to examine the areas related to mobilization, integration, and employment of the Coast Guard.

Rainbow 1 included little about mobilizing the Coast Guard. It stated that “Commanders of COAST GUARD vessels and aircraft will report for instructions to the Commandants of NAVAL DISTRICTS wherein they normally base. Such units should be given necessary instructions to incorporate them promptly into naval commands designated in Appendix II.” Rainbow 5 stated that Coast Guard forces “upon M-day or sooner if directed by the president, will automatically come under control of the Naval Districts in the manner set forth in the ‘United States Coast Guard District Manual,

¹⁶⁸ Ronald H. Spector, *Eagle Against the Sun, The American War with Japan* (New York: Vintage Books, 1985), 59.

1940.’ “ The 1941 version of this manual will be discussed in detail later to provide an in-depth understanding of the Coast Guard’s mobilization process.¹⁶⁹

Rainbow 1 focused on defending geographic regions referred to as Coastal Frontiers and protect U.S. Sea Lines of Communication. Forces were divided between the United States Fleet, the U.S. Asiatic Fleet, and the Naval Coastal Frontier Forces. The Coastal Frontier forces consisted of the Coastal Force and the Local Defense Forces for each Naval District. Forces were only assigned to the North Atlantic, Southern, and Pacific Frontiers. Much like previous plans, most Coast Guard cutters were assigned as local defense forces within the Naval Districts. Four of the Coast Guard’s premier Treasury-class cutters, however, were assigned to patrol offshore in the North Atlantic Coastal Frontier Force and the Southern Coastal Frontier Force. Coast Guard air stations were included in the tables also.¹⁷⁰ Presumably, the Treasury-class cutters were assigned to the Coastal Frontier Force because of their higher endurance and speed relative to other cutters.

The division of forces in Rainbow 5 was much more extensive than in Rainbow 1, but it too included Naval Coastal Frontier Force. Instead of listing individual vessels for

¹⁶⁹ *WPL 42, Navy Basic War Plan – Rainbow No. 1, 1940, .38; WPL 46, Navy Basic War Plan – Rainbow No. 5, 1941, 50, USN Strategic Plansg.*

¹⁷⁰ *WPL 42, Navy Basic War Plan – Rainbow No. 1, 1940, .25-27; WPL 42, Change No. 1, 1940, Appendix II, Tables NACF, 1-4; SCF, 1-4; PCF, 1-3; PRCF, 1, USN Strategic Plans. Aircraft from Salem, Massachusetts; Bennet Field, New York; and Elizabeth City, North Carolina are assigned to the North Atlantic Frontier Force. Aircraft from Charleston, South Carolina; Miami, Florida, St. Petersburg, Florida, and Biloxi, Mississippi are assigned to the Southern Coastal Frontier Force. Aircraft from Port Angeles, Washington; San Francisco, California; and San Diego, California are assigned to the Pacific Coastal Frontier Force.*

the local defense forces, the assignment tables simply said, “Units assigned in Accordance with paragraph 2-803, Appendix II.” This paragraph stated that units not listed in the tables were assigned to the Local Defense Force and that Lighthouse tenders would normally be used for their peacetime duties. It also specified that “Commandants of Naval Districts will understand that, on assuming command of Coast Guard units, they also assume responsibility for the discharge of essential Coast Guard Functions.” Additionally, Naval District Commandants were charged to cooperate with Coast Guard commanders to plan wartime operations for the service.¹⁷¹ Using more direct language than the similar clause discussed earlier in War Plan Green, this instruction to the District Commandants clearly assigned responsibility for Coast Guard peace time missions to them.

Unlike Rainbow 1, Appendix II to Rainbow 5 listed cutters by name. Six of the Treasury-class cutters along with two other cruising cutters were assigned to the U.S. Atlantic Fleet, Subchaser Division 31. In their roles as subchasers and escorts, these cutters played a significant part in the Battle of the Atlantic during World War II. *Comanche*, *Algonquin*, *Modoc*, and *Raritan* were assigned to “special duty under the Chief of Naval Operations,” further annotated as the “Greenland Patrol.” Like Rainbow 1, Coast Guard Air Station aircraft were assigned to the Coastal Frontier Forces, along with several cruising cutters.¹⁷²

¹⁷¹ *WPL 46, Navy Basic War Plan - Rainbow No. 5*, Appendix II, 9; Table NACF, 2, USN Strategic Plans.

¹⁷² *WPL 46, Navy Basic War Plan - Rainbow No. 5*, Appendix II, Tables ATF-1, 3; CNO-1, 1; NACF, 1-4; SCF, 1-3; PCF, 1-3; PNCF, 1; 1-PRCF, 1; PSCF, 1-3, USN Strategic Plans.

Like the Color plans, the Rainbow Plans did not include administrative details pertaining to the integration of the Coast Guard. The 1941 “United States Coast Guard District Manual and Mobilization Plan”, hereafter referred to as the Mobilization Plan, provides these details and is an important supplementary document to the war plans. The Mobilization plan was approved by SecNav Frank Knox and outlined the process for how the Coast Guard would operate under the DoN “Upon declaration of war” or “When transferred by executive order.” A complete transfer was detailed under Mobilization Plan No.1 and a partial mobilization in time of peace is included under Mobilization Plan No. 2.¹⁷³

The order to carry out Mobilization Plan No. 1 would be transmitted via a message from Coast Guard Headquarters to the various Coast Guard Districts and then be further disseminated to all vessels and other units. Once ordered to mobilize, all Coast Guard Districts would automatically come under the control of the Naval District in which they resided. District Commanders would report to the respective Commandants of the Naval Districts. In some cases, Coast Guard Districts and Naval Districts were not geographically aligned. Units whose Coast Guard District headquarters were outside the bounds of the Naval District were “automatically divorced from that Coast Guard District and come under the jurisdiction of the Naval District in which located.” When ordered to

¹⁷³ U.S. Treasury Department, *U.S. Coast Guard District Plan and Mobilization Manual*, 1941, Washington, DC, U.S. Coast Guard Academy Library, Special Collections and Archives, Cover Letter, 9.

demobilize, the Coast Guard would simply resume operations under the Treasury Department.¹⁷⁴

Like the Coast Guard's 1917 mobilization plan discussed in Chapter 2, the 1941 Mobilization Plan specified that many of the administrative functions remained with the Coast Guard. It stated that, "The Coast Guard will be transferred to the Navy with as little change in present administrative methods as possible and as much of the existing peacetime Coast Guard organization as practicable will be used." Headquarters would continue to carry out logistics and administrative functions as a division of OpNav and with the assistance of the Bureaus of the Navy Department. The Coast Guard Academy and Maritime Service were to be under the immediate supervision of Coast Guard Headquarters. Headquarters would also supervise the Coast Guard Yard and Field Inspection Service for administrative purposes, but they were still under the control of the Naval Districts in which they reside. When mobilized, legal authority to punish Coast Guard personnel would be transferred to the Navy and regulations governing Coast Guard courts were suspended.¹⁷⁵

Much of the Mobilization Plan was dedicated to budgetary procedures. The Coast Guard was responsible to prepare a separate budget estimate to be included with the Navy's budget. Officers in charge of funds were to use Coast Guard budgetary procedures, adjusted as necessary to meet Navy requirements. The Commandant was

¹⁷⁴ U.S. Treasury Department, *U.S. Coast Guard District Plan and Mobilization Manual*, 10-12. Under Mobilization Plan No. 2, orders for a partial mobilization would be sent to individual to the applicable districts or units.

¹⁷⁵ *Ibid.*, 1.

assigned the responsibilities of arranging the funds deposits, conduct administrative examination of accounts, and submit reports to ensure proper accounting. Under a partial transfer of the Coast Guard, the service would retain responsibility for personnel pay, logistics and maintenance. Legislation was in place, however, that allowed Navy funds to cover Coast Guard operating expenses if needed.¹⁷⁶

Due to the specialized activities of the Coast Guard, the Mobilization Plan called for the continued completion of the service's peacetime missions. When mobilized, Coast Guard District Commanders became subordinate to the Naval District Commanders but were also designated as "Administrator[s] of Coast Guard affairs" and continue to operate the shore organization, as much as possible, as it was in peacetime. At the discretion of the Naval District Commandant, the former District Commander could be assigned as the "Commander, Inshore Patrol." Captain of the Port duties, which ensured the security and proper operation of ports and waterways, remained with Coast Guard officers.¹⁷⁷

One of the most interesting provisions in the Mobilization Plan stated, "The identity of Coast Guard personnel will be maintained." It is no wonder this was included given the long history of the Coast Guard threatened with permanent absorption by the Navy. While many coast guardsmen would carry out wartime duties making them synonymous with Navy personnel, this simple clause would ensure that they continued to be distinguished. Not only was it important for individual coast guardsmen to remain tied

¹⁷⁶ U.S. Treasury Department, *U.S. Coast Guard District Plan and Mobilization Manual*, 15-16.

¹⁷⁷ *Ibid.*, 19-23.

to the service, it underscored the importance for the Coast Guard to maintain its organizational identity as well.¹⁷⁸

One of the most important takeaways from this analysis, is that the inclusion of Coast Guard forces in wartime operations was not haphazard. The General Board, and later the War Plans Division of OpNav, very deliberately planned to employ the Coast Guard during wartime naval operations. The plans set forth a clear concept of how the service would be integrated and operate within the DoN. Coast Guard assets and personnel, including the destroyers the service operated during the Prohibition Era, were reflected in the assignment of forces and logistics estimates. The war plans went as far as assigning Naval District Commandant's responsibility for Coast Guard missions, showing that Navy planners understood the importance of the service's peacetime duties.

Throughout the plans, there were variances in the level of detail explaining the Coast Guard's mobilization process. War Plan Green included a significant amount of detail and specified that the Coast Guard would be notified well before the declaration of war, while Plan Orange initially did not. Updates to Plan Orange eventually added more details on the Coast Guard's mobilization process and provisions for earlier notification. Rainbow 1 and Rainbow 5, which were generally more concise than the Color Plans, only offered meager information about the mobilization process. Rainbow 5, however, referenced the Coast Guard Mobilization Plan, which provided comprehensive administrative details on the Coast Guard's mobilization.

¹⁷⁸ U.S. Treasury Department, *U.S. Coast Guard District Plan and Mobilization Manual*, 14.

Regardless of the level of detail about how to mobilize the service, all the plans were predicated on the notion that the Coast Guard would be transferred to the DoN upon the declaration of war or by executive order. It is arguable how important specifying the timing for notifying the Coast Guard, since Senior Coast Guard officials would certainly be apprised of a pending mobilization through liaisons and inter-department correspondence. Still, a formalized timeline for notification would allow for more deliberate pre-mobilization preparations.

Navy planners certainly put some thought into how Coast Guard forces would be organized and employed. Destroyers were assigned to critical defense roles in the 14th District, Panama Canal Zone, and some were intended to be used in the Western Pacific. The very capable Treasury-class cutters and other larger cruising cutters were assigned to similar critical defense role, as well as sub-chasing and escort duties. To a limited extent, the plans assigned the destroyers and cutters as fleet scouts. Assets assigned as Local Defense Forces were concentrated in the more vulnerable Naval Districts, like District 14 and the Panama Canal Zone. Plan Green included an excellent patrol boat squadron concept, specifying the use of larger cruising cutter to act as tenders for the smaller patrol boats.

The Coast Guard Mobilization Plan was a key document guiding the Coast Guard's integration in the DoN. The document pragmatically called for the Coast Guard to continue conducting many of its peacetime operations and administration with as little change as possible. It detailed how the Coast Guard's shore organization would fit into the Naval Districts and assigned responsibilities to senior officers to ensure the service's missions were executed smoothly. The stipulations that the Coast Guard resume its duties

within the Treasury Department after demobilization and that personnel maintain their identity shows an effort to ease the transition of the service back to its normal operations following the war.

The Navy's intended role for the Coast Guard in wartime operations should not be exaggerated. Although the service would support amphibious landings throughout World War II, the Navy did not intend for the Coast Guard to execute offensive operations. The Navy did plan to rely heavily on the Coast Guard for local defense and other roles that were commensurate with the service's capabilities. The Coast Guard may have been a small service in the days preceding World War II, but its integration with the Navy was an integral part of the largest mobilization of U.S military forces in history and valiant efforts that led the U.S. to victory.

CHAPTER 6

CONCLUSIONS

When the Coast Guard transferred to the DoN in November of 1941, it was a small organization with limited assets and personnel. By the time Pearl Harbor was attacked on 7 December 1941, the service's personnel had numbered nearly 30,000, and there were 168 cutters, 39 lightships, and numerous other small craft in its fleet. At its peak, the Coast Guard had a total of 702 cutters and other large vessels, as well as around 8,000 small craft. The number of personnel swelled to 175,000 regular and reserve, in addition to over 50,000 temporary reservists and over 8,000 women reservists known as the SPARS. A large portion of the regular and reserve personnel served at sea, while the temporary reservists, many of whom volunteered without pay, and SPARS filled positions on land.¹⁷⁹

During World War II, Coast Guard cutters performed convoy escorts and anti-submarine warfare operations just as they had during World War I. Late in 1943, it is estimated that over 400 Coast Guard and Coast Guard-manned vessels were engaged in these activities. Most of the service's contributions during the war were familiar tasks like port security, supervising explosive ordnance handling, and directing merchant ship traffic. Coast guardsmen carried out beach patrols and served at lookout posts along the coastline. Ordinary duties like servicing aids to navigation and icebreaking that kept the sea lines of communication open took on greater importance. In March of 1942, the President transferred the Bureau of Marine Inspection Navigation to the Coast Guard

¹⁷⁹ Malcolm, 8-9.

from the Department of Commerce, giving the service more authority to regulate activities related to the safety of life at sea.¹⁸⁰

In addition to the duties already mentioned, Coast Guard personnel served aboard 351 Navy and 288 Army vessels. These vessels included transport and cargo ships, tankers, landing craft, destroyer escorts, patrol frigates, gunboats, and submarine chasers. The Coast Guard also participated in every U.S. amphibious operation during the war. It was during one such operation, on 27 September 1942, that Signaller First Class Douglas Munro led a detachment of five Higgins boats into intense enemy fire to evacuate a Marine detachment that was overrun by Japanese forces at Point Cruz, Guadalcanal. During the mission, Munro maneuvered his boat to cover the withdraw and was mortally wounded. For his heroism, Munro posthumously received the Congressional Medal of Honor, the Coast Guard's sole recipient of the award.¹⁸¹

The Coast Guard was returned to the Department of the Treasury on 1 January 1946.¹⁸² Although the Coast Guard would continue to augment the Navy in future conflicts, this was the last time the entire service transferred to the DoN. Once again, the Coast Guard had proved its immense value to the Nation. No longer would there be attempts to dissolve the service or permanently transfer it to the DoN. By mid-1946,

¹⁸⁰ Johnson, 195-196; Willoughby, *Rum War at Sea*, 9.

¹⁸¹ Willoughby, *Rum War at Sea*, 169-170, 263.

¹⁸² *Ibid.*, 10.

demobilization was nearly complete, and the Coast Guard would resume its regular duties.¹⁸³

Neither the General Board nor the Navy war planners could have envisioned the many different roles the Coast Guard was to assume during World War II. Their strategic thinking regarding ship design, mobilization, origination, and employment provided basic guidelines for how to leverage the service's unique capabilities and align them with wartime operations. This war, more than any before it, shaped the Coast Guard organizationally as an armed force, because of the scope of the conflict and the extent of the service's participation in naval wartime operations.

This thesis has examined the Coast Guard's wartime operations in World War I under the DoN, its organizational development during the Prohibition Era and the interwar period, and the activities of the General Board and the Navy war planners that supported its integration into the DoN during World War II. This study will conclude by carrying the related findings forward and applying them to modern-day challenges facing the Coast Guard. In doing so, these lessons learned must be taken in the appropriate context. The world during the period surveyed in previous chapters was very different from the present. The Coast Guard, likewise, has undergone many changes as well. It is necessary, then, to briefly address these changes and see what the organization looks like today.

The U.S. emerged from World War II as a global super-power and became a central figure in an interconnected global economy, largely dependent on maritime

¹⁸³ Johnson, 260.

commerce. Fishing and harvesting other natural resources from the sea has continued to grow, and to a great extent contributed to the economic success of the U.S. As the U.S.'s reliance on the sea continues to increase, the Coast Guard's roles in law enforcement, search and rescue, pollution response, maritime security, and homeland defense and other missions are more relevant today than ever.

The title "U.S. Coast Guard" is somewhat of a misnomer. One of the unforeseen consequences of the Coast Guard's wartime operations was its transformation into a global organization. The lengthy wartime deployments of the Treasury-class and other large sea-going cutters that followed, along with increased reliance on long-range maritime patrol aircraft has extended the service's operational reach. Much more so than before, the Coast Guard can protect U.S. interests far from the nation's shores. The 21st century Coast Guard is a truly global organization that regularly participates in cooperative engagements to strengthen U.S. partnerships and provide stability on the lawless expanses of the high seas.

Technological advancements continue to shape how the Coast Guard operates. Perhaps the most significant is the extensive use of rotary and fixed-wing aircraft for search and rescue, counter-narcotics, and alien-migrant interdiction missions. Due to resource constraints, the Coast Guard has, at times, fallen behind the curve in fielding the latest equipment, but the service still looks for ways to incorporate the latest technology. The Commandant's latest strategic guidance calls for investing in unmanned aerial

vehicles, as well as leveraging artificial intelligence and machine learning to increase the organization's effectiveness in the maritime domain.¹⁸⁴

The Coast Guard's need to quickly respond and conduct a wide variety of missions throughout an expansive maritime area of operations means that it is highly decentralized and geographically dispersed. Numerous small units are arrayed throughout the U.S., its territories, and overseas. This organization presents challenging sustainment and logistical issues. In some ways, today's Coast Guard reflects the amalgamation of its predecessor agencies. Its various missions have led to the development of several distinct lines of effort and sub-cultures within the service.

Despite the changes in the maritime domain and advancements in technology, many of the Coast Guard's regular activities are much the same as they were when the predecessor agencies merged in 1915. The service still deploys cutters, boats, and aircraft to carry out a wide variety of missions. Today's counter-drug operations are reminiscent of the days when coast guardsmen pursued rumrunners during the Prohibition Era. Search and Rescue missions still frequently occur in bad weather, pitting Coast Guard men and women against the elements to save distressed mariners. Ice breakers and buoy tenders ensure that merchant traffic continues to flow safely and efficiently along U.S. waterways. The most significant change to the Coast Guard's missions in recent history occurred following the attacks of September 11th, 2001. The attacks catalyzed a shift in

¹⁸⁴ U.S. Coast Guard, *Coast Guard Strategic Plan 2018-2022* (Washington, DC: U.S. Coast Guard, 2018.), 14, accessed 31 March 2020, https://www.uscg.mil/Portals/0/seniorleadership/alwaysready/USCG_Strategic%20Plan__LoRes%20Page_20181115_vFinal.pdf?ver=2018-11-15-140314-127.

focus to port and waterways security and the development of robust maritime security and anti-terrorism capabilities.

While the Coast Guard’s peacetime missions have undergone only minor changes, modern naval warfare has evolved considerably. Long-range anti-ship cruise missiles have replaced naval guns as the primary weapon of surface combatants. Submarines have developed into floating ballistic-missile silos, with the ominous function of providing seaborne mutually assured destruction. Following World War II, the U.S. has remained the dominant naval power throughout the world. The U.S. Navy’s ability to project combat power throughout the globe is unmatched. This power gap is shrinking, however, with many nations developing blue-water navies and highly advanced seaborne capabilities.

The Navy’s current strategy document, *A Design for Maintaining Maritime Superiority, Version 2.0*, explains how the service will operate in the maritime domain going forward. The strategy emphasizes competition rather than conflict, framing a different approach to how the U.S will pursue its interests at sea. Referring directly to the primary U.S. adversaries, it states, “While rarely rising to the level of conflict, Chinese and Russian actions are frequently confrontational.” In response, the document calls for the development of a more agile, sustainable, and jointly oriented forces, deploying them according to the concepts of “Dynamic Force Employment” and “Distributed Maritime Operations.”¹⁸⁵

¹⁸⁵ U.S. Navy, Office of the Chief of Naval Operations, *A Design for Maintaining Maritime Superiority Version 2.0* (Washington, DC: U.S. Navy, December 2018.), 3-6, 8, accessed 31 March 2020, https://www.navy.mil/navydata/people/cno/Richardson/Resource/Design_2.0.pdf.

Dynamic Force Employment means increasing the unpredictability of forces at the operational level while remaining strategically predictable. For example, this could entail showing up where adversaries least expect it while still adhering to the provisions of the United Nations Convention for the Law of the Sea.¹⁸⁶ Admiral Christopher Grady, Fleet Forces Command, explains the concept of Distributed Maritime Operations stating that “Leveraging the principles of distribution, integration and maneuver, [Distributed Maritime Operations or] DMO is designed to deny the adversary their objectives by stopping their military offensive in its tracks.”¹⁸⁷ Another important related concept to Distributed Maritime Operations, is Distributed Lethality. The 2017 *Surface Force Strategy* describes Distributed Lethality as, “Increasing the offensive and defensive capability of individual warships, employing them in dispersed formations across a wide expanse of geography, and generating distributed fires.”¹⁸⁸

Like the Navy’s contemporary strategic doctrine, the *Coast Guard Strategic Plan for 2018-2020* also refers directly to Russia and China’s actions, saying they “Challenging rules-based international order through inter-state aggression, economic coercion, maritime hybrid warfare, gray zone activities, and overreaching territorial

¹⁸⁶ Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America* (Washington, DC: Department of Defense, 2018), .4, accessed 5 April 2020, <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

¹⁸⁷ Christopher W. Grady, “Remarks as delivered at the ACFEA/USNI WEST Conference” (San Diego, CA, 15 February 2019.), 4, accessed 5 April 2020, <https://www.public.navy.mil/usff/Documents/grady-afcea-west-2019.pdf>.

¹⁸⁸ U.S. Navy, Naval Surface Forces, *Surface Fleet Strategy, A Return to Sea Control* (Norfolk, VA: U.S. Navy, 2017.), 9, accessed 4 April 2020, https://www.public.navy.mil/surfor/Documents/Surface_Forces_Strategy.pdf.

claim.” It explains how the Coast Guard’s dual role as a law enforcement agency and military organization enables it to “Cooperate in ways that other military services cannot.” and that it “Plays a critical role in strengthening governance in areas of strategic importance.” Regarding the Coast Guard’s defense role, the strategic aim is to leverage the service’s authorities and specialized capabilities to support the National Defense Strategy and build capacity in areas of U.S. Strategic interest.”¹⁸⁹ Although the Coast Guard is a military force, the presence of a cutter may seem less adversarial than a Navy ship. Not only is this critical in terms of dynamic force employment, but it also means that service is an ideal choice to engage in operations below the level of armed conflict without causing escalation.

As the Navy and Coast Guard’s strategies suggest, future competition may skirt the line of war and remain below the level of large-scale combat operations. Global competition in what has come to be known as “Gray Zone” activities will frequently take the place of armed conflict. In the maritime domain, these activities include the Chinese use of Coast Guard and maritime militia vessels to challenge the sovereignty of its neighbors and deny them access to natural resources.¹⁹⁰ With the growing complexity of preserving U.S. strategic interests in the new era of great power competition, the U.S. Coast Guard has an essential role in maintaining the “rules-based international order,”

¹⁸⁹ *Coast Guard Strategic Plan 2018-2022*, 4, 6.

¹⁹⁰ Lyle J. Morris, Michael J. Mazzar, Jeffery W. Hornung, Stephanie Pezard, Anika Binnendikj, and Marta Keep, *Gaining Competitive Advantage in the Gray Zone: Response Options for Coercive Aggression Below the Threshold of Major War* (Santa Monica: Rand Corporation, 2019), xii, 27-28, accessed, 4 April 2020, https://www.rand.org/content/dam/rand/pubs/research_reports/RR2900/RR2942/RAND_RR2942.pdf.

and in fact, it is already contributing to this effort. In 2019, two National Security Cutters (NSC) deployed as part of a Surface Action Group to conduct freedom of navigation operations in the South China Sea. As China continues its expansionist activities in the Indo-Pacific region, these types of patrols will become more routine for the Coast Guard.

Even with an increase in activities short of war, the potential for large-scale combat operations still exists and the Coast Guard needs to be ready. Both the service's personnel and cutters must be able to respond to a wide variety of conventional and unconventional threats. These threat categories are not mutually exclusive, and it is expected that adversaries will leverage all available means to advance their positions simultaneously. The Coast Guard's missions regularly involve responding to unconventional threats against U.S. interests, including targeting drug and migrant smugglers, thwarting illegal fishing activity, and conducting counter-terrorism operations. The service is less prepared to confront conventional naval forces. While the Coast Guard's multi-mission cutters are versatile, their offensive and defensive capabilities are limited. How and where Coast Guard assets are used in throughout the range of military operations needs careful consideration, especially in the context of distributed lethality.

Considering the U.S. Navy's strategic planning efforts during the interwar period is useful in speculating about how the Coast Guard might be employed in future competition and large-scale combat operations. The Color Plans and Rainbow Plans were described how to mobilize, organize, and employ the Coast Guard for war. Although the planners did not fully predict the many roles coast guardsmen would take on during the

next war, the level of detail they put into planning efforts was exhausting and accounted for the entirety of the peacetime structure of the organization.

To begin this discussion on mobilization and organization, the question of whether the Coast Guard should be organized under the DoN should be addressed first. During the massive mobilization efforts before World War I and World War II, the primary benefit of transferring the service was to provide a means to surge personnel with seamanship expertise to fill vacancies on warships. Since the end of World War II, the Coast Guard has repeatedly contributed to naval operations without the need for transferring the agency between departments. Currently, six Island-class patrol boats support the U.S. Navy's Fifth Fleet Operations in the Arabian Gulf. Other patrol boats function solely to provide maritime force protection for high-value assets stateside. As mentioned, NSCs deploy with Navy Surface Action Groups to the eastern Pacific. Unless the U.S. finds itself in a large-scale combat operations and personnel are needed to fill critical gaps aboard Navy ships, the Coast Guard can continue to supplement the Navy without a wholesale transfer, which offers no advantage to either service.

During a wartime scenario where the service forgoes a transfer to the DoN, Coast Guard units simply complete workups and deploy much as they do during peacetime. Additional training requirements are warranted, along with supplementary personnel and equipment, but a process for "mobilization" does not apply. Coast Guard units remain administratively attached to the Coast Guard but carry out missions for Navy operational commanders under the established joint-operational framework. The organization and employment of Coast Guard units will depend much upon the scale of conflict and specific objectives.

Regardless of the Coast Guard's potential transfer to the DoN, the service should focus on enhancing its interoperability with the Navy. At the technical level, the Coast Guard should, to the maximum extent possible, acquire for its cutters, boats, and aircraft standard systems and equipment used by the Navy. Aside from the potential to reduce costs, shared systems will provide supply-chain stability and allow the Coast Guard to better leverage Navy and DoD logistics and training and performance support tools. Additionally, common command, control, communication, combat, intelligence, surveillance, and reconnaissance systems will allow for better operational integration and more rapid information sharing during joint operations. A high level of technical integration is needed for the Coast Guard to effectively support Distributed Maritime Operations and Dynamic Force Employment initiatives.

The Coast Guard has historically either followed Navy doctrine or borrowed from it liberally in various fields. This is useful in some cases, for example, vis-a-vis naval gunnery and ordnance, but has its limitations elsewhere where the service's missions diverge from the Navy's. The Coast Guard needs to continue to refine its doctrine to support mission effectiveness, while still leveraging Navy doctrine and procedures where it makes sense to do so. The Coast Guard has relied on the Navy for training to a high degree as well, and the service should continue to do so. Common training courses reduce costs, and to some degree, provide for standard procedures between the Coast Guard and Navy fleets.

In addition to the technical and procedural considerations, the Coast Guard and the Navy should continue to build interoperability by expanding on exercises, engagements, and officer exchange programs. These activities reinforce the importance

of the technical and procedural aspects of interoperability and are avenues for sharing best practices between the two services. They are also cultural exchanges that allow service members to build cross-service camaraderie. All these activities will enable the Coast Guard and the Navy to better integrate during joint operations.

The Coast Guard is currently undergoing an extensive fleet recapitalization effort. The most mature of these programs is the NSC being built by Huntington Ingalls Shipbuilding to replace the *Hamilton*-class cutters that were commissioned in the 1960s and 1970s. The NSC is the most capable cutter class in the fleet. Incorporating a combined diesel and gas turbine propulsion plant, it can reach a top speed of 28 knots and has a 12,000 nm range. It is equipped with advanced sensors and communication systems, and its hull design gives it excellent seakeeping capability. The NSC can embark up to two HH-65 helicopters, or one HH-65 and one unmanned aerial vehicle and carries three attached small boats. It is equipped with a 57mm gun, close-in weapons system, Nulka decoy launching system, tactical datalink, and an electronic warfare suite. There are currently eight NSCs in commission, three more hulls are under construction, and long lead-time materials for the twelfth have been funded.¹⁹¹

¹⁹¹ Ronald O'Rourke, *Coast Guard Cutter Procurement: Background and Issues for Congress* (Washington, DC: Congressional Research Service, 2020), 3-4, 15, accessed 31 March 2020, <https://fas.org/sgp/crs/weapons/R42567.pdf>. The original Program of record for the National Security Cutter was for eight hulls and included using a crew rotation concept. The Coast Guard has since determined that a crew rotation concept does not provide enough return on investment. While the funding has been provided for long lead time material for the twelfth National Security Cutter, this funding could be diverted to the Coast Guard's Icebreaker program (Polar Security Cutter).; U.S. Navy, Office of Chief of Naval Operations and the U.S. Coast Guard, Office of the Commandant, *The National Fleet Plan*, (Washington, DC: U.S. Navy and U.S. Coast Guard, 2015), 24-27, accessed 31 March 2020, https://www.navy.mil/strategic/Fleet_Plan_Final.pdf; "National Security Cutter Fact Sheet," U.S Coast Guard,

Like the NSC Program, the Fast Response Cutter (FRC) program is well underway, replacing the service's Island-class patrol boats. The FRC is designed to patrol in U.S. coastal waters and carry out law enforcement, search and rescue missions, and maritime security operations. This class features advanced communications and sensors and improved crew accommodations. There are currently 36 FRC hulls in commission out of a planned 58. While much more capable than their predecessors, relative to the larger cutter classes, the FRCs are limited in endurance, seakeeping, and the absence of a flight deck. They are equipped with a stabilized 25-mm machine gun, an over-the-horizon small boat, and can reach speeds over 28 knots.¹⁹²

The Offshore Patrol Cutter (OPC) will take station between the NSC and FRC in terms of capabilities. With a flight deck, estimated 60-day endurance, and 10,000 nm range, it will be more comparable to the NSC. The program of record is for the acquisition of 25 hulls to replace the Reliance-class and Famous-class medium endurance cutters that are between 37 and 55 years old. The design features innovative electric loiter-motors for increased endurance and efficiency. Like the NSC, it will carry three small boats and be able to embark helicopters and unmanned aerial vehicles. The OPC will be equipped with a 57mm and 25mm guns, Nulka decoy launching system, tactical datalink, and electronic warfare suite. A close-in weapons system is not currently part of

Acquisitions Directorate, accessed 06 April 2020, <https://www.dcms.uscg.mil/Portals/10/CG-9/Acquisition%20PDFs/Factsheets/NSC.pdf?ver=2017-04-24-142526-023>.

¹⁹² O'Rourke, 1-2, 12-13; "Fast Response Cutter Fact Sheet," U.S. Coast Guard, Acquisitions Directorate, accessed 6 April 2020, https://www.dcms.uscg.mil/Portals/10/CG-9/Acquisition%20PDFs/Factsheets/FRC_032020.pdf?ver=2020-03-05-101505-717.

the OPC design. Totalling an estimated \$10.2 billion, this is the most ambitious acquisition program in Coast Guard history, and when completed, the OPC will comprise the core of the Coast Guard's sea-going cutter fleet.¹⁹³

As the Coast Guard takes on the critical recapitalization of the cutter fleet, what lessons are there from the General Board's hearings with the Coast Guard? The General Board meetings were important to establishing a cooperative effort between the Navy and the Coast Guard to incorporate wartime requirements in cutter designs; efforts that continue today in the development of *The National Fleet Plan*.¹⁹⁴ The early General Board hearings were, for the most part, focused on how the cutters were going to be built, but there were some minor design revisions made. The 1926 hearing included representatives from many of the Naval Bureaus and the 1931 hearing included a representative from the OpNav War Plans division. The inclusion of these additional attendees in later meetings indicates the process for providing input on Coast Guard cutter design had matured. The final hearing in 1931 also codified a process for how the Navy and the Coast Guard would integrate wartime requirements in cutter designs going forward.

¹⁹³ *The National Fleet Plan*, 24-27; "Offshore Patrol Cutter Fact Sheet," U.S. Coast Guard, Acquisitions Directorate, accessed 6 April 2020, <https://www.dcms.uscg.mil/Portals/10/CG-9/Acquisition%20PDFs/Factsheets/OPC.pdf?ver=2017-04-24-145309-917>; O'Rourke, 4-9.

¹⁹⁴ U.S. Navy, Office of Chief of Naval Operations and the U.S. Coast Guard, Office of the Commandant, *National Fleet: A Joint Navy/Coast Guard Policy Statement*. (Washington, DC: U.S. Navy and U.S. Coast Guard, 2006), accessed 20 April 2020, https://www.navy.mil/navydata/cno/2006_national_fleet_policy.pdf.

Overall, these meetings show that designing a cutter that is both useful for the Coast Guard and the Navy is a difficult undertaking, requiring many compromises. Adding Navy requirements late in the design process is problematic, and by doing so, the cutter design is limited in how it can incorporate these requirements and be employed for wartime operations. This is by no means to say that all Navy requirements can and should be incorporated into cutter designs. Homeland defense is but one of the Coast Guard's statutory missions and the impacts of each design decision must be considered throughout the entirety of the service's mission portfolio. What follows are some general considerations from the General Board studies related to modern Coast Guard cutter designs.

An observation made early in the General Board's hearings with the Coast Guard was that the cutters deployed to Europe during World War I was too slow and insufficiently armed. While modern cutters are sufficiently faster, by comparison, many still lag behind Navy ships. Rather than speed, endurance and the ability loiter efficiently are more useful characteristics for most Coast Guard missions. Just as cutter endurance proved valuable during the lengthy open-ocean escort missions of World War I, these characteristics of modern cutters may offer advantages for operating in the Gray Zone. For example, Coast Guard cutter's ability to loiter for long periods allow for an enduring presence in a disputed maritime area. Like previous wars, Cutters' range, speed, and endurance are important planning factors for future wartime operations.

Since cutters are primarily used for law enforcement and other non-combat missions, anything beyond modest armaments seems unnecessary. Additional weapon systems could be mounted on an as-needed basis like they were leading up to World War

I and World War II, but there are substantial challenges to doing so. Modern weapon systems are complicated and maintenance intensive. Operators and maintainers of these systems require a substantial amount of training; likewise, the command cadre needs to understand the tactical nuances of employing them. Adding weapons systems to cutters ad hoc will require structural modifications, detailing crewmembers with the proper skills to operate and maintain them, and training to build proficiency, all of which prolong workup timelines substantially.

In deference to Distributed Lethality, the idea of arming Coast Guard cutters with anti-ship cruise missiles has been suggested in a recent article of *Proceedings*.¹⁹⁵ Adding a vertical launch system to a Coast Guard cutter presents some staggering engineering and sustainment challenges; however, this idea could be feasible with a light, deck-mounted system. The drawback is that such offensive measures add an aggressive posture to cutters, which may inhibit their ability to operate in the Gray Zone. Instead, a more pragmatic endeavor would be to equip cutters with more robust air-defense systems. Given the prevalent threat of anti-ship cruise missiles, air-defense countermeasures and hard-kill systems will enhance a cutter's survivability and effectiveness in a contested environment.

Space and crew accommodations were other areas of concern brought up during the General Board hearings. Experience shows that cutters need more crewmembers, as well as additional systems and equipment, when deploying to a warzone. Additional crew

¹⁹⁵ Daniel Wiltshire, "Distribute Lethality to the Cutters," U.S. Naval Institute *Proceedings* 144, no. 9 (September 2018): 58-62, accessed 31 March 2020, <https://www.usni.org/magazines/proceedings/2018/september/distribute-lethality-cutters>.

members are needed to operate any added weapons and bolster wartime watch rotations to enhance readiness. During World War I, cutter crews deploying to Europe increased by one-third. Based on this experience and input from the General Board, both the *Tampa*-class and Lake-class cutters were designed to accommodate wartime crew expansion. While the need for additional crew members will be driven by the pace of operations and equipment operating and maintenance needs, it should be anticipated that cutter crews will expand by at least one-third during wartime deployments.

The General Board was interested in the protection features of cutters. While the primary concerns of the time were torpedoes, protection today has expanded to cover chemical, biological, cyber threats. Modern cutters have protective measures well beyond anything the Hunnewell and the General Board members could have imagined. Features like the water mist fire protection system included in the NSC and the OPC is an impressive design feature that increases the safety of the ship and its crew members. During wartime operations, however, additional protection against kinetic threats should be considered for cutters deploying to hostile areas.

The Coast Guard has a proud military tradition that spans 230 years. During this time, the service regularly acquired new missions and shifted priorities, but what remained constant was the duty to protect the Nation from the enemies of freedom and democracy. The versatility and bravery of coast guardsmen, not the service's material assets, has always been and will continue to be its most important warfighting capability. No matter what the face of the next war is or when it comes, the Coast Guard will stand ready to fight alongside the Navy and other sister services.

Areas for Future Research

This thesis very broadly covers a lengthy period of Coast Guard history, and in doing so, does not have the depth or detail to explore many themes and concepts more thoroughly. The research on the General Board of the Navy was limited to the hearing transcripts available on microfilm, but there were several other board studies (“serials”)—not yet on microfilm—that will certainly provide further insights into how the Coast Guard was prepared for combat before World War II. These serials are listed at the end of Chapter 4. The research and analysis of the war plans are more limited in that it did not fully examine all the Color Plans or Rainbow Plans and their numerous revisions. This is an area that has much potential for future research.

The lack of investigation of other Coast Guard and Navy documents, outside of the General Board hearings and war plans are other limitations. Correspondence between the Coast Guard and the Navy and other documents related to shipbuilding and mobilization are research avenues that could provide further context for the research and analysis. Finally, this study focused mainly on Coast Guard cutters and their crews but did not thoroughly examine how the service’s other functional areas prepared for war.

APPENDIX A

COAST GUARD DESTROYERS

Class	Vessel Name	Hull Number	Dates Operated by Coast Guard
Paulding Class			
-	<i>Paulding</i>	CG-17	28 Apr 24-18 Oct 30
-	<i>Roe</i>	CG-18	07 Jun 24-18 Oct 30
-	<i>Terry</i>	CG-19	07 Jun 24-18 Oct 30
-	<i>McCall</i>	CG-14	07 Jun 24-18 Oct 30
-	<i>Burrows</i>	CG-10	28 Apr 24-02 May 31
-	<i>Monaghan</i>	CG-15	07 Jun 24-08 May 31
-	<i>Trippe</i>	CG-20	07 Jun 24-02 May 31
-	<i>Ammen</i>	CG-8	28 Apr 24-22 May 31
-	<i>Patterson</i>	CG-16	28 Apr 24-18 Oct 30
-	<i>Fanning</i>	CG-11	07 Jun 24-24 Nov 30
-	<i>Henley</i>	CG-12	16 May 24-08 May 31
-	<i>Beale</i>	CG-9	28 Apr 24-18 Oct 30
-	<i>Jouett</i>	CG-13	28 Apr 24-22 May 31
Cassin Class			
-	<i>Cassin</i>	CG-1	28 Apr 24-30 Jun 33
-	<i>Cummings</i>	CG-3	07 Jun 24-23 May 32
-	<i>Downes</i>	CG-4	28 Apr 24-02 May 31
O'Brien Class			
-	<i>McDougal</i>	CG-6	07 Jun 24-30 Jun 33
-	<i>Ericsson</i>	CG-5	07 Jun 24-23 May 32

Class	Vessel Name	Hull Number	Dates Operated by Coast Guard
Tucker Class			
-	<i>Tucker</i>	CG-23	25 Mar 26-30 Jun 33
-	<i>Conyngham</i>	CG-2	07 Jun 24-30 Jun 33
-	<i>Porter</i>	CG-7	07 Jun 24-30 Jun 33
-	<i>Wainwright</i>	CG-24	02 Apr 26-27 Apr 34
Sampson Class			
-	<i>Davis</i>	CG-21	25 Mar 26-05 Jul 34
-	<i>Wilkes</i>	CG-25	25Mar 26-27 Apr 34
-	<i>Shaw</i>	CG-22	25 Mar 26-30 Jun 33
Clemson Class			
-	<i>Semmes</i>	CG-20	20 Apr 32-14 Jun 34
-	<i>Abel P. Upshur</i>	CG-15	05 Nov 30-21 May 34
-	<i>Hunt</i>	CG-18	13 Sep 30-28 May 34
-	<i>Welborn C. Wood</i>	CG-19	01 Oct 30-28 May 34
-	<i>George E. Badger</i>	CG-16	01 Oct 30-21 May 34
-	<i>Herndon</i>	CG-17	13 Sep 30-28 May 34

Source: This table was adapted from Paul Silverstone, *The Navy of World War II, 1922-1947. The U.S. Navy Warship Series* (New York: Routledge, 2008), 46-47, 51.

APPENDIX B

CUTTER CHARACTERISTICS

240' Tampa Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
1, 785 tons	Single-screw, turbine-electric, 2 boilers, 2,600 shp	16 knots	3,500 @ 15 kts	2-5"/51. 2-6 pdr; added 1-3"/50 added in 1942; 2-5"/51, 2-3" 50, 4-20mm AA added 1945
Name	Builder	Comm. Date	Disposition/Notes	
<i>Tampa</i>	General Engineering	27 Sep 20	Decommissioned 01 Feb 47	
<i>Haida</i>	-	26 Oct 21	Decommissioned 13 Feb 47	
<i>Mojave</i>	-	12 Dec 21	Decommissioned 03 Jul 47	
<i>Modoc</i>	-	14 Jan 22	Decommissioned 01 Feb 47	

125' Active Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
220 tons	Twin-screw, diesel, 500-800 bhp	12 kts	2,500 @ 12 kts	1-3"/23, 2-20mm
Name	Builder	Comm. Date	Disposition/Notes	
<i>Active</i>	NY Ship Building	30 Nov 26		
<i>Agassiz</i>	-	30 Nov 26	Collided with M/V <i>Prince George</i> 07 Jul 28	
<i>Alert</i>	-	30 Nov 26		
<i>Antietam</i>	-	30 Nov 26	Foundered in hurricane near NC 14 Sep 44 with loss of 26 crew	
<i>Bonham</i>	-	30 Nov 26		
<i>Boutwell</i>	-	27 Jan 27		
<i>Cahoone</i>	-	27 Jan 27	Decommissioned 30 Oct 29, Collided with rumrunner <i>James E.</i>	
<i>Cartigan</i>	-	27 Jan 27		
<i>Crawford</i>	-	27 Jan 27	Decommissioned 15 Aug 47	
<i>Cuyahoga</i>	-	27 Jan 27	Transferred to USN 29 May 33, returned to CG 17 May 41	
<i>Diligence</i>	-	27 Jan 27		
<i>Dix</i>	-	27 Jan 27		

<i>Ewing</i>	-	15 Mar 27	
<i>Faunce</i>	-	15 Mar 27	
<i>Frederick Lee</i>	-	15 Mar 27	
<i>General Greene</i>	-	14 Feb 27	
<i>Harriet Lane</i>	-	30 Nov 26	Decommissioned 29 Apr 46
<i>Jackson</i>	-	14 Feb 27	Foundered in hurricane near NC 14 Sep 44 with loss of 21 crew
<i>Kimball</i>	-	25 Apr 27	
<i>Legare</i>	-	14 Feb 27	
<i>Marion</i>	-	15 Mar 27	
<i>McLane</i>	-	22 Mar 27	
<i>Montgomery</i>	-	22 Mar 27	
<i>Morris</i>	-	04 Apr 27	
<i>Nemaha</i>	-	04 Apr 27	Decommissioned 21 Jul 47
<i>Pulaski</i>	-	04 Apr 27	Decommissioned 04 Dec 46
<i>Reliance</i>	-	18 Apr 27	Decommissioned 08 Aug 47
<i>Rush</i>	-	18 Apr 27	Sunk following collision with M/V <i>J.A. Moffett</i> 29 Dec 27, salvaged, Decommissioned 21 Aug 47
<i>Tiger</i>	-	18 Apr 27	Decommissioned 12 Nov 47
<i>Travis</i>	-	25 Apr 27	
<i>Vigilant</i>	-	25 Apr 27	
<i>Woodbury</i>	-	02 May 27	Decommissioned 11 Dec 46
<i>Yeaton</i>	-	02 May 27	

250' Lake Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
1,662 tons	Single-screw, turbo-electric, 2 boilers, 3,350 shp	17.3 kts	8000 @ 12 kts	1-5"/51, 1-3"/50, 2-6 pdrs; 2-3"/50 added in 1941
Name	Builder	Comm. Date	Disposition	
<i>Chelan</i>	Bethlehem-Quincy	05 Sep 28	Transferred to UK 02 May 41, returned to U.S. 12 Feb 46, Sold 23 Oct 47	

<i>Ponchatrain</i>	-	13 Oct 28	Transferred to UK 30 Apr 41, sunk by French destroyer/shore batteries near Oran, Algeria
<i>Tahoe</i>	-	08 Nov 28	Transferred to UK 30 Apr 41, returned to U.S. 27 Mar 46, Sold 24 Oct 47
<i>Champlain</i>	-	24 Jan 29	Transferred to UK 12 May 41, returned to U.S. 27 Mar 46
<i>Mendota</i>	-	23 Mar 29	Transferred to UK 30 Apr 41, Torpedoed and sunk in North Atlantic 31 Jan 42
<i>Itasca</i>	General Engineering	12 Jul 30	Transferred to UK 31 May 41, returned 23 Apr 46
<i>Sebago</i>	-	02 Sep 30	Transferred to UK 12 May 41, sunk by French destroyers/shore batteries near Oran, Algeria
<i>Saranac</i>	-	02 Oct 30	Transferred to UK 30 Apr 41, returned to U.S. 27 Feb 46
<i>Shoshone</i>	-	10 Jan 31	Transferred to UK 20 May 41
<i>Cayuga</i>	United Staten Island	22 Mar 32	Transferred to UK 12 May 41, returned to U.S. May 46

165' Escanaba "A" Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
1,005 tons	Single-screw, gas turbine; 2 boilers, 1,500 shp	12.5 kts	2,500 @ 12 kts	2-3"/50, 3-20mm AA
Name	Builder	Comm. Date	Disposition	
<i>Escanaba</i>	Defoe	17 Sep 32	Exploded and sank in North Atlantic 13 Jun 1943 with loss of 101 crew	
<i>Algonquin</i>	Pusey	25 Jul 34	Decommissioned 18 Apr 1947	
<i>Comanche</i>	-	06 Sep 34	Decommissioned 29 Jul 47	
<i>Mohawk</i>	-	23 Oct 34	Decommissioned 8 Jan 48	
<i>Onondaga</i>	Defoe	02 Aug 34	Decommissioned 24 Jul 47	
<i>Tahoma</i>		05 Sep 34	Decommissioned 18 Sep 47	

165' Thetis "B" Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
337 tons	Twin-screw, diesel, 1340 bhp	16 kts	1,750 @ 14 kts	1-3"/23; 2-3"/50, 2-20mm in added in 1945
Name	Builder	Comm. Date	Disposition	
<i>Thetis</i>	Bath	27 Nov 31	Sunk <i>U-157</i> near Havana, Cuba 13 Jun 42, Decommissioned 01 Jul 47	
<i>Aurora</i>	Bath	21 Dec 31		
<i>Calypso</i>	Bath	16 Jan 32	Transferred to USN 17 May 41, returned to CG 20 Jan 42, Decommissioned 18 Jul 47	
<i>Daphne</i>	Bath	12 Feb 32		

<i>Hermes</i>	Bath	07 Mar 32	
<i>Icarus</i>	Bath	01 Apr 32	Sunk <i>U-352</i> near Cape Hatteras, NC 09 May 42, Decommissioned 21 Oct 46
<i>Perseus</i>	Bath	27 Apr 32	
<i>Argo</i>	Mathis	06 Jan 33	
<i>Galtea</i>	Mathis	03 Feb 33	
<i>Atalanta</i>	Lake Union	20 Sep 34	
<i>Ariadne</i>	Lake Union	09 Oct 34	
<i>Cyane</i>	Lake Union	25 Oct 34	
<i>Dione</i>	Manitowoc	05 Oct 34	Transferred to USN 08 Nov 35, returned to CG 21 Nov 45, Decommissioned Dec 23 May 46
<i>Electra</i>	Manitowoc	25 Oct 34	
<i>Pandora</i>	Manitowoc	01 Nov 34	
<i>Triton</i>	Marietta	20 Nov 34	
<i>Nike</i>	Marietta	24 Oct 34	
<i>Nemesis</i>	Marietta	10 Oct 34	

327' Treasury Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
2,216 tons	Twin-screw, gas turbine, 2 boilers, 5,250 shp	19.5 kts	7, 012 @ 12 kts	2-5"/51, 2-6 pdr; 3-5"/51, 3-3"/50 added in 1941, 2-5"/38, 3 twin 40mm, 4to 8 20mm added in 1945; 4-5" added to <i>Taney</i> in 1945
Name (shortened in 1937)	Builder	Comm. Date	Disposition	
<i>(George W.) Campbell</i>	Philadelphia Navy Yard	22 Oct 36	3 Battles, Sunk <i>U-606</i> in the MidAtlantic 22 Feb 43, Decommissioned 1 Apr 82	
<i>(Samuel D.) Ingham</i>	-	06 Nov 36	4 Battles, Sunk <i>U-626</i> in Mid-Atlantic 15 Dec 42, Decommissioned 27 May 88	
<i>(William J.) Duane</i>	-	16 Oct 36	3 Battles, Decommissioned 1 Aug 85	
<i>(Roger B.) Taney</i>	-	19 Dec 36	3 Battles, Decommissioned 07 Dec 86	
<i>(Alexander) Hamilton</i>	New York Navy Yard	04 Mar 37	Torpedoed 29 Jan 42, foundered under tow 30 Jan 42 with a loss of 26 crew	
<i>(John C.) Spencer</i>	-	13 May 37	9 Battles including Leyte, Brunei, and several amphibious landings; Sunk: <i>U-225</i> in Mid-Atlantic 21 Feb 43, <i>U-175</i> near Ireland 17 Apr 43; Decommissioned 15 Dec 80	

(George M.) Bibb Charleston 19 Mar 37 2 Battles, Decommissioned 30 Sep 85

255' Owasco Class Cutter

Displacement	Propulsion	Max. Speed	Range	Armaments
1, 563 tons	Single-screw, turbine-electric, 2-boilers, 4,000 shp	16 kts	5,800 @ 10 kts	4-5"/38, 2 quad 40mm, 4-20mm
Name (shortened in 1937)	Builder	Comm. Date	Disposition	
<i>Owasco</i>	Western Pipe & Steel	18 May 45	Decommissioned 27 Jun 73	
<i>Winnebago</i>	-	21 Jun 45	Decommissioned 27 Feb 73	
<i>Chautauqua</i>	-	04 Aug 45	Decommissioned 01 Aug 73	
<i>Sebago</i>	-	20 Sept 45	Decommissioned 29 Feb 72	
<i>Iroquois</i>	-	09 Feb 45	Decommissioned 13 Jan 65	
<i>Wachusett</i>	-	09 Feb 46	Decommissioned 30 Aug 73	
<i>Escanaba</i>	-	23 Mar 46	Decommissioned 28 Jun 74	
<i>Winona</i>	-	20 Mar 46	Decommissioned 31 May 74	
<i>Klamath</i>	-	19 Jun 46	Decommissioned 1 May 73	
<i>Minnetonka</i>	-	11 Jul 46	Decommissioned 31 May 74	
<i>Androscoggin</i>	-	26 Sep 46	Decommissioned 27 Feb 73	
<i>Mendota</i>	Curtis Bay	02 Jun 45	Decommissioned 1 Nov 73	
<i>Ponchatrain</i>	Curtis Bay	28 Jul 45	Decommissioned 19 Oct 73	

Source: This table was adapted from Paul Silverstone, *The Navy of World War II, 1922-1947. The U.S. Navy Warship Series* (New York: Routledge, 2008), 352-355, 358-359; Treasury-class and Owasco-class decommissioning dates from Robert Scheina, *U.S. Coast Guard Cutters and Craft, 1946-1990* (Annapolis: Naval Institute Press, 1990), 28.

BIBLIOGRAPHY

Primary Sources

- Cochran, Hamilton. "Hunting the Hun with the Coast Guard by an American Sailor." Unpublished Manuscript: 1919.
https://media.defense.gov/2017/Aug/07/2001789092/-1/-1/0/1919_WW1_COCHRAN-HUNTINGHUN.PDF.
- National Archives and Record Administration. Washington, DC, and College Park, MD, Record Group 80 (RG80), Proceedings and Hearings of the General Board of the U.S. Navy, 1900-1950.
- "Navy-Coast Guard Combine." *Army Navy Journal*, 23 December 1933.
- National Archives and Record Administration. Washington, DC, and College Park, MD, Record Group 38 (RG38), Scholarly Resources, Inc.: Wilmington, DE, Strategic Planning in the U.S. Navy: Its Evolution and Execution, 1891-1945.
- U.S. Congress, Senate. *U.S. Coast Guard Act of 1915*. Public Law 293, 63rd Cong., 3rd sess., January 20, 1915.
- U.S. Treasury Department. Coast Guard. *Mobilization of the Coast Guard When Required to Operate as a Part of the Navy*. Washington, DC: 22 March 1917.
- Wheeler, William. "Reminiscences of World War Convoy Work." *U.S. Naval Institute Proceedings* 55, no. 5 (May 1929): 385-393.
<https://www.usni.org/magazines/proceedings/1929/may/reminiscences-world-war-convoy-work>.

Books

- Bloomfield, Howard. *The Compact History of the United States Coast Guard*. New York: Hawthorn Books, 1966.
- Canney, Donald L. *Rum War: The U.S. Coast Guard and Prohibition*. Washington, DC: U.S. Coast Guard, 1990.
- Cronon, David, ed. *The Cabinet Diaries of Josephus Daniels, 1913-1921*. Lincoln: University of Nebraska Press, 1940.
- Ensign, Eric S. *Intelligence in the Rum War at Sea, 1920-1930*. Washington, DC: Joint Military Intelligence College, 2001.
- Evans, Stephen. *The United States Coast Guard, 1790-1915: A Definitive History*. Annapolis: Naval Institute Press, 1949.

- Johnson, Robert. *Guardians of the Sea: History of the United States Coast Guard, 1915 to the Present*. Annapolis: Naval Institute Press, 1987.
- Kaplan, H. and James Hunt. *This is the Coast Guard*. Cambridge: Cornell Maritime Press, 1972.
- Kuehn, John. *Agents of Innovation: The General Board and the Design of the Fleet That Defeated the Japanese Navy*. Annapolis: Naval Institute Press, 2008.
- _____. *America's First General Staff: A Short History of the Rise and Fall of the General Board of the Navy, 1900-1950*. Annapolis: Naval Institute Press, 2017.
- Larzelere, Alex. *The Coast Guard in World War I: An Untold Story*. Annapolis: Naval Institute Press, 2003.
- Mercey, Arch and Lee Grove, eds., *Sea, Surf, and Hell: The U.S. Coast Guard in World War II*. New York: Prentice-Hall, Inc., 1946.
- Miller, Edward. *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897-1945*. Annapolis: Naval Institute Press.
- Powell, Hickman. *What the Citizen Should Know about the Coast Guard*. New York: W.W. Norton & Company, 1941.
- Ross, Steven T. *American War Plans: 1919-1941, Vol 1: Peacetime War Plans, 1919-1935*. New York: Garland Publishing, 1992.
- Scheina, Robert L. *U.S. Coast Guard Cutters and Craft, 1946-1990*. Annapolis: Naval Institute Press, 1990.
- Silverstone, Paul. *The Navy of World War II, 1922-1947*. The U.S. Navy Warship Series. New York: Routledge, 2008.
- Spector, Ronald H. *Eagle Against the Sun, The American War with Japan*. New York: Vintage Books, 1985.
- Walling, Michael. *Bloodstained Sea: The U.S. Coast Guard in the Battle of the Atlantic, 1941-1944*. Camden, Me: International Marine/McGraw-Hill, 2004.
- Willoughby, Malcolm. *Rum War at Sea*. Washington D.C.: U.S. Government Printing Office, 1964
- _____. *The U.S. Coast Guard in World War II*. Annapolis: Naval Institute Press, 1957.

Articles

- Butler, Jarvis. "The General Board of the Navy." U.S. Naval Institute *Proceedings* 56, no. 8 (August 1930): 700-705. <https://www.usni.org/magazines/proceedings/1930/august/general-board-navy>.
- Cianflone, Frank A. "The Eagle Boats of World War I." U.S. Naval Institute *Proceedings* 99, no.6 (June 1937): 76-80. <https://www.usni.org/magazines/proceedings/1973/june/eagle-boats-world-war-i>.
- Grady, Christopher W. "Remarks as delivered at the ACFEA/USNI WEST Conference in San Diego, CA, 15 February 2019." <https://www.public.navy.mil/usff/Documents/grady-afcea-west-2019.pdf>.
- Kaplan, H.R. "A Toast to the Rum Fleet." U.S. Naval Institute *Proceedings* 94, no. 5 (May 1968): 85-90. <https://www.usni.org/magazines/proceedings/1968/may/toast-rum-fleet>.
- Kuehn, John T. "Revive the General Board of the Navy." U.S. Naval Institute *Proceedings* 136, no. 10 (October 2010): 66-7. <https://www.usni.org/magazines/proceedings/2010/october/revive-general-board-navy>.
- Morris, Lyle J., Michael J. Mazzar, Jeffery W. Hornung, Stephanie Pezard, Anika Binnendikj, and Marta Keep. "Gaining Competitive Advantage in the Gray Zone: Response Options for Coercive Aggression Below the Threshold of Major War." Rand Corporation: Santa Monica, CA, 2019. https://www.rand.org/content/dam/rand/pubs/research_reports/RR2900/RR2942/RAND_RR2942.pdf.
- Morton, Louis. "The Color Plans, 1919-1938." In *The Legacy of American Naval Power: Reinvigorating Maritime Strategic Thought*, edited by Paul Westermeyer. Quantico, VA: History Division, United States Marine Corps, 2019.
- Price, Scott. "Into the Breach: The U.S. Coast Guard's Preparations for the Battle of the Atlantic, 1930-1942." Paper presented at the McMullen Naval History Symposium, Annapolis, MD, September 2011.
- O'Rourke, Ronald. *Coast Guard Cutter Procurement: Background and Issues for Congress*. Washington, DC: Congressional Research Service, 2020. <https://fas.org/sgp/crs/weapons/R42567.pdf>.
- Owen, Dan. "Let the Coast Guard be the Coast Guard." Naval Institute *Proceedings* 145, no. 10 (October 2019): 58-61. <https://www.usni.org/magazines/proceedings/2019/october/let-coast-guard-be-coast-guard>.
- Rowden, Thomas, Peter Gumataotao, and Peter Fanta. "Distributed Lethality." U.S. Naval Institute *Proceedings* 141, no. 1 (January 2015): 18-23. <https://www.usni.org/magazines/proceedings/2015/january>.

Sanial, Gregory. "The Coast Guard Belongs with DoD." U.S. Naval Institute *Proceedings* 145, no. 9 (September 2019): 64-67.

Williams, William. "Josephus Daniels and the U.S. Navy's Shipbuilding Program During World War I." *Journal of Military History* 60, no. 1 (January 1996): 7.
<http://search.proquest.com/docview/195635589/abstract/AF1E36B02219477APQ/1>.

Wiltshire, Daniel. "Put the Coast Guard in the Department of the Navy." U.S. Naval Institute *Proceedings* 145, no. 8 (August 2019). <https://www.usni.org/magazines/proceedings/2019/august/put-coast-guard-department-navy>.

_____. "Distribute Lethality to the Cutters." U.S. Naval Institute *Proceedings* 144, no. 9 (September 2018): 58-62. <https://www.usni.org/magazines/proceedings/2018/september/distribute-lethality-cutters>

Government Publications

Department of Defense. *Summary of the 2018 National Defense Strategy of the United States of America*. Washington, DC: Department of Defense, 2018.
<https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

U.S. Coast Guard. *Coast Guard Strategic Plan 2018-2022*. Washington, DC: U.S. Coast Guard, 2018. https://www.uscg.mil/Portals/0/seniorleadership/alwaysready/USCG_Strategic%20Plan__LoRes%20Page_20181115_vFinal.pdf?ver=2018-11-15-140314-127.

U.S. Coast Guard, Acquisition Directorate. "Sept. 15, 2016 - Acquisition Update: Coast Guard Selects Offshore Patrol Cutter Design." <https://www.dcms.uscg.mil/Portals/10/CG-9/Newsroom/In%20The%20News%20Archives/2016/opc091516.pdf?ver=2017-05-23-124855-680>.

_____. "Fast Response Cutter Fact Sheet." https://www.dcms.uscg.mil/Portals/10/CG-9/Acquisition%20PDFs/Factsheets/FRC_032020.pdf?ver=2020-03-05-101505-717.

_____. "National Security Cutter Fact Sheet." <https://www.dcms.uscg.mil/Portals/10/CG-9/Acquisition%20PDFs/Factsheets/NSC.pdf?ver=2017-04-24-142526-023>.

_____. "Offshore Patrol Cutter Fact Sheet." <https://www.dcms.uscg.mil/Portals/10/CG-9/Acquisition%20PDFs/Factsheets/OPC.pdf?ver=2017-04-24-145309-917>.

U.S. Navy, Office of Chief of Naval Operations and the U.S. Coast Guard, Office of the Commandant. *The National Fleet Plan*. Washington, DC: U.S. Navy and U.S. Coast Guard, 2015. https://www.navy.mil/strategic/Fleet_Plan_Final.pdf.

_____ *National Fleet: A Joint Navy/Coast Guard Policy Statement*. Washington, DC: U.S. Navy and U.S. Coast Guard, 2006. https://www.navy.mil/navydata/cno/2006_national_fleet_policy.pdf.

U.S. Navy, Naval Surface Forces. *Surface Fleet Strategy, A Return to Sea Control*. Norfolk, VA: U.S. Navy, 2017. https://www.public.navy.mil/surfor/Documents/Surface_Forces_Strategy.pdf.

U.S. Navy, Office of the Chief of Naval Operations. *A Design for Maintaining Maritime Superiority Version 2.0*. Washington, DC: U.S. Navy, December 2018. https://www.navy.mil/navydata/people/cno/Richardson/Resource/Design_2.0.pdf.