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**NAVAL
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MONTEREY, CALIFORNIA

THESIS

**INSURGENCY IN YEMEN: HOUTH AND INSURGENT
THREATS TO MARITIME OPERATIONS**

by

Bilal O. Awad

December 2018

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REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2018	3. REPORT TYPE AND DATES COVERED Master's thesis	
4. TITLE AND SUBTITLE INSURGENCY IN YEMEN: HOUTH AND INSURGENT THREATS TO MARITIME OPERATIONS			5. FUNDING NUMBERS	
6. AUTHOR(S) Bilal O. Awad				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.			12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) <p>The world depends on the Suez Canal for ocean trade, and the United States maintains a presence in the Red Sea region to ensure open waters around the Cape of Hope. During Yemen's ongoing civil war, the Houthi movement has targeted the Saudi Arabia-led coalition, including U.S. Navy ships. This thesis explores whether the threat to the U.S. Navy and partners has increased and whether, as a result, CENTCOM's strategy needs to change to protect U.S. interests. The thesis examines U.S. grand strategy, CENTCOM strategy, the rise of the Houthi movement and its support from Iran, and the attacks on U.S. and partner ships. As the humanitarian crisis in Yemen worsens, this thesis finds that the maritime threat has also increased, creating a threat to both U.S. interests and global trade. U.S. leadership must consider a revised response.</p>				
14. SUBJECT TERMS Yemen, maritime insurgency, terrorism, Saudi Arabia, coalition forces, Iran, Iran-proxy, Saudi-proxy war			15. NUMBER OF PAGES 93	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

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**INSURGENCY IN YEMEN: HOUTH AND INSURGENT THREATS TO
MARITIME OPERATIONS**

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Submitted in partial fulfillment of the
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**MASTER OF ARTS IN SECURITY STUDIES
(MIDDLE EAST, SOUTH ASIA, SUB-SAHARAN AFRICA)**

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ABSTRACT

The world depends on the Suez Canal for ocean trade, and the United States maintains a presence in the Red Sea region to ensure open waters around the Cape of Hope. During Yemen's ongoing civil war, the Houthi movement has targeted the Saudi Arabia-led coalition, including U.S. Navy ships. This thesis explores whether the threat to the U.S. Navy and partners has increased and whether, as a result, CENTCOM's strategy needs to change to protect U.S. interests. The thesis examines U.S. grand strategy, CENTCOM strategy, the rise of the Houthi movement and its support from Iran, and the attacks on U.S. and partner ships. As the humanitarian crisis in Yemen worsens, this thesis finds that the maritime threat has also increased, creating a threat to both U.S. interests and global trade. U.S. leadership must consider a revised response.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACLED	Armed Conflict Location and Event Data Project Afloat
AFSB	Staging Base
AOR	Area of Responsibility
AQAP	Al Qaeda in the Arabian Peninsula
CENTCOM	United States Central Command
DDG	Guided Missile Destroyer
EMD	Egyptian Maritime Databank
GCC	Gulf Cooperation Council
IRT	Iranian Threat Network
UN	United Nations
RPG	Rocket-Propelled Grenade
RPNY	National Defense Research Institute Report
SAM	Surface to Air Missile
VBIED	Vehicle Born Improvised Explosive Device
UAE	United Arab Emirates
UMVBIED	Unmanned Vehicle-Borne Improvised Explosive Device

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I. INTRODUCTION

Maritime transport through the Suez Canal currently accounts for over 7.5% of the world's ocean trade.¹ Although the U.S. Navy maintains a presence in the region, that presence has come under threat as a result of Yemen's ongoing civil war; the Houthi movement in Yemen has targeted U.S. and partner maritime traffic off the coast of Yemen.² If the Houthis expand their hostilities toward maritime activity in the Red Sea, resulting in shipping routes being diverted around the Cape of Hope, the impact could be extremely devastating to the global economy. As the war in Yemen continues, the United States and coalition forces must ensure continued freedom and safety of navigation along Yemen's coast.

A. MAJOR RESEARCH QUESTION

The Arab Spring in 2011 inspired the political uprising and civil unrest in Yemen today. Of all the states on the Arabian Peninsula, Yemen was one of the most affected by the Arab Spring.³ Since Yemen possesses high strategic interests for the United States, the U.S. military must examine how the civil war in Yemen has affected U.S. interests, strategy, and operations in the Arabian Peninsula. Particularly, how has the rise of Houthi power, backed by Iranian military assistance, impacted the maritime environment and U.S. naval operations along Yemen's coasts? This thesis examines how the rise of insurgency within Yemen, primarily that of the Houthis, has affected U.S. and coalition maritime operations in the Red Sea region.

¹ Egyptian Maritime Databank, "The Suez Canal: A Vital Shortcut for Global Commerce" (World Shipping Council, 2007), <http://www.worldshipping.org/pdf/suez-canal-presentation.pdf>.

² Shaul Shay and Rachel Liberman, *The Red Sea Terror Triangle: Sudan, Somalia, Yemen, and Islamic Terror*, 1st ed. (New Brunswick, NJ: Transaction, 2007), 197–201.

³ Marcel Serr, "Understanding the War in Yemen," *Israel Journal of Foreign Affairs*, (January 4, 2018): 1–13, <https://doi.org/10.1080/23739770.2017.1419405>.

B. SIGNIFICANCE OF THE RESEARCH QUESTION

The insurgency in Yemen directly affects the maritime environment in the Red Sea region. The U.S. Central Command (CENTCOM) strategy may need to evolve to counter this growing threat. This thesis supports U.S. naval operations in the Red Sea region, and CENTCOM's area of responsibility (AOR) more generally, by examining the impact of Yemen's insurgency on U.S. and coalition maritime operations. Understanding the strategy and capabilities of insurgent groups within Yemen, particularly the Iran-backed Houthi, and how those factors have affected U.S. and coalition maritime operations, can help identify ways and means that U.S. and coalition maritime operations can adapt to better manage and counter the threats posed to the maritime environment.

This thesis completes three main steps in its research to establish how and to what extent insurgent groups in Yemen have affected maritime operations in the Red Sea region. First, we identify the general pattern of U.S. and Coalition maritime operations, goals, and strategy in the greater Red Sea region and CENTCOM AOR. That general pattern serves as a baseline for measuring the relative impact of insurgent operations and attacks on U.S. and Coalition operations. Second, we establish the strategies, capabilities, and operational track record in the maritime domain for both the Houthis and AQAP. Third, we examine the role foreign actors have had in aiding those groups through materiel support and know-how. By researching the maritime operations and capabilities of the Houthis and AQAP, and better understanding the role that outside states (primarily Iran) have had in providing materiel aid, we establish the present and potential future impact of these groups on the maritime environment. Knowing that impact allows us to identify areas of potential weakness in U.S. and coalition operations and provide recommendations that can improve maritime operations and strategy both in the greater Red Sea region and in the CENTCOM AOR.

Understanding the success and failures of the U.S. and coalition maritime component in CENTCOM is essential to understanding the best strategy forward to thwart the threat of Yemen's insurgency on maritime operations. The United States has established seapower in the Persian Gulf by utilizing a vast amount of its naval and political power. The U.S. commitment to assisting partner states in the region, as well as to

countering violent extremism, has been central to U.S. strategic interests in the CENTCOM AOR. Although insurgent organizations in Yemen pose a growing threat to U.S. and coalition naval activities, the issue has not seemed to gain much critical attention.

Generally, the historic role of the U.S. Navy has been to maintain the freedom of the sea. Continued safe and unrestricted maritime shipping and operations surrounding the Red Sea region is essential to the global economy, which directly affects U.S. and coalition economic interests. If threats from Yemen's coast were to restrict maritime shipping and operations, the transit would divert to alternate sea lanes, which could dramatically increase the cost and time required to travel by sea. According to the Egyptian Maritime Databank (EMD), maritime vessels traveling from the Persian Gulf to London require fourteen days and travel a distance of 6400 nautical miles, if they utilize the Suez Canal.⁴ If travel through the Suez Canal is obstructed, the EMD assesses that having to navigate around the Cape of Good Hope would add over 5100 nautical miles and an additional ten days to voyages.⁵

Both the Houthis and AQAP have already shown a willingness and ability to strike U.S. and coalition naval vessels and thus to challenge, and raise the cost of operations in, the maritime domain. Recent attacks by the Houthis against coalition vessels have proven that a very real and capable threat already exists and could increase.⁶ The strength of the Houthis has been attributed by the UN to training and provisions of military weapons from Iran.⁷ Such support has increased the sophistication of Houthi capabilities and might continue to do so through the near and medium terms. Therefore, understanding the threat in Yemen, what factors have allowed this threat to grow in sophistication, and how this threat has affected U.S. and coalition maritime operations, can provide information to better identify ways of improving U.S. and coalition maritime strategy and operations in the Red Sea region.

⁴ Egyptian Maritime Databank

⁵ Egyptian Maritime Databank

⁶ Jeremy Binnie, "Yemeni Rebels Threaten Red Sea Shipping," *Jane's Defense Weekly*, (January 2018), http://janes.ihs.com.libproxy.nps.edu/Janes/Display/FG_719429-JDW.

⁷ Binnie, "Yemeni Rebels Threaten Red Sea Shipping."

C. LITERATURE REVIEW

The following literature review covers three relevant areas: major theories of U.S. grand strategy, Norman Cigar's work on non-state actors, and Shaul Shay's work on the Red Sea Region. Additionally, this thesis is supported by historical and contextual information regarding maritime and trade routes through the Suez Canal, Red Sea, Bab el Mandab, and the Gulf of Aden, primarily drawn from *The Encyclopedia of World Trade*,⁸ that offers insight as to the evolution of global trade and causal factors that reinforce the importance of the Red Sea Region.

a. *U.S. Grand Strategy*

Yemen—as a geographically critical state in the CENTCOM AOR—has long been important to U.S. grand strategy, alternatively categorized by two primary schools of thought or four primary policy outlooks. Reich and Dombrowski define U.S. grand strategy as “the search for order and consistency in an ever-more complex world.”⁹ More broadly, grand strategy is understood as the processes and military assets a state employs to advance its values and policies based in the areas of foreign policy.¹⁰ Understanding different conceptualizations of U.S. grand strategic approaches, and how naval power fits in with those approaches, can help CENTCOM and U.S. leadership better identify alternative ways to formulate and operationally exercise naval strategy Red Sea region.

The two primary schools of thought regarding U.S. grand strategy belong to John J. Mearsheimer and, together, to Francis Fukuyama and Charles Krauthammer. Mearsheimer believes that offshore balancing, which primarily focuses on ensuring U.S. dominance in Europe, Northeast Asia, and the Persian Gulf, “is the best way to ensure American primacy.”¹¹ Counter to offshore balancing, Francis Fukuyama and Charles

⁸ *Encyclopedia of World Trade*, s.v. “bab el mandab,” accessed March 3, 2018, <https://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=2011181>.

⁹ Simon Reich and Peter J Dombrowski, *The End of Grand Strategy: U.S. Maritime Operations in the Twenty-First Century*, (London: Cornell University Press, 2017), <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1589149>.

¹⁰ Reich and Dombrowski, *The End of Grand Strategy*, 1–12.

¹¹ John Mearsheimer, “Imperial by Design,” *The National Interest*, no. 111 (December 16, 2010): 16–34, ProQuest.

Krauthammer advocate the U.S. grand strategy of global dominance, which they describe as a unipolar movement.¹²

Andrew L. Ross and Barry R. Posen instead introduce U.S. grand strategy as not simply two schools of thought, but categorize it into four unique policy outlooks: neo-isolationism, selective engagement, cooperative security, and primacy. Each of these four categories help describe U.S. grand strategy, and more narrowly CENTCOM strategy, in the AOR.

The current U.S. grand strategy of global dominance, also known as global hegemony, focuses on maintaining U.S. primacy and spreading democracy around the globe, but not every scholar sees that as positive.¹³ While Krauthammer and Fukuyama have urged U.S. leaders to be bold in establishing the new global order and its enforcement in the wake of the Cold War,¹⁴ Mearsheimer describes the current U.S. strategy, followed since the Cold War, as “a strategy that is imperial to its core.”¹⁵ Mearsheimer argues against global dominance because he believes global dominance will only lead to endless war and global security obligations for the United States.¹⁶ Considered unsustainable by Mearsheimer, the U.S. strategy of global dominance has brought political backlash from the international community for its imperialist nature.¹⁷ Mearsheimer emphasizes the need for the United States to reform its grand strategy and to, instead, follow offshore balancing. Offshore balancing is believed to promote stability and foster the responsibility of security in the hands of regional powers. Mearsheimer suggests that by shifting U.S. strategy to Offshore balancing, this would result in the end of what he describes as “the pursuit of global dominance.” Finally, since the international community would view the United States as less threatening should the U.S. turn its strategy toward offshore balancing, there might be less motivation for nuclear proliferation. As an alternative to global dominance,

¹² Mearsheimer, “Imperial by Design,” 16–34.

¹³ Mearsheimer, “Imperial by Design,” 16–34.

¹⁴ Mearsheimer, “Imperial by Design,” 16–34.

¹⁵ Mearsheimer, “Imperial by Design,” 16–34.

¹⁶ Mearsheimer, “Imperial by Design,” 16–34.

¹⁷ Mearsheimer, “Imperial by Design,” 16–34.

Mearsheimer proposes selective engagement, which assumes that, at any point in which there is a threat to Europe, Northeast Asia, or the Persian Gulf, the United States should pacify or at least manage the threat.

The Yemen war, primarily the threat presented by the Houthis and AQAP, also qualifies as a threat to our allies. Since the Houthi and AQAP have threatened Saudi Arabia, the United States should be compelled to respond in accordance with selective engagement. The U.S. grand strategy does apply portions of selective engagement in regard to the CENTCOM AOR, but primarily U.S. strategy as it relates to Yemen is in accordance with global dominance. Even under the strategic implications of global dominance, however, the insurgent threat within Yemen qualifies the attention of U.S. maritime forces.

According to Mearsheimer, the U.S. grand strategy of global dominance was reinforced in the aftermath of the terrorist attacks of 9/11.¹⁸ The United States emphasized the need for increased presence within the Middle East and the responsibility of leading the Global War on Terror.¹⁹ Further, the strategy that allowed the Global War on Terror was based “off an over exaggerated threat of terrorism,” which “failed to understand why Al Qaeda had attacked the United States.”²⁰ Following Reich and Dombrowski’s theory of tailored strategy, Mearsheimer’s statement offers evidence that the strategy of global dominance and overwhelming maritime force may not have been the appropriate response in the aftermath of 9/11.²¹

Some argue that naval strategy and operations are a core and necessary component to U.S. grand strategy and have been central to U.S. strategic success since the late nineteenth century.²² In the *Influence of Sea Power upon History*, Admiral Thayer Mahan argued that the supremacy of the sea, known as “seapower,” would provide and sustain global power. Since the classic instrument of grand strategy has been the U.S. military, and

¹⁸ Mearsheimer, “Imperial by Design,” 16–34.

¹⁹ Mearsheimer, “Imperial by Design,” 16–34.

²⁰ Mearsheimer, “Imperial by Design,” 16–34.

²¹ Reich and Dombrowski, *The End of Grand Strategy*, 28–46.

²² Reich and Dombrowski, *The End of Grand Strategy*, 66–84.

more closely the U.S. Navy, Mahan emphasized that “U.S. grand strategy should be one of primacy and entail patrolling the global commons,”²³ influencing the requirement for the United States to maintain a naval presence in almost every ocean and sea across the world.

Counter to Mahan’s strategy, Simon Reich and Peter Dombrowski consider today’s complex world too exceedingly challenging for a unipolar strategy.²⁴ Reich and Dombrowski propose that strategy should be developed and tailored based on the specific dilemmas and threats of each conflict and that the magnitude of response will significantly depend on the available resources at any given time. In line with Reich and Dombrowski’s theory, U.S. Naval strategy should be tailored to deliver a calibrated response to the growing maritime insurgent threat within the Red Sea. If maritime insurgency is a growing threat to maritime operations within the Red Sea, then Mahan’s strategy may be too broad to efficiently remove the maritime threat. Reich and Dombrowski conclude that, by understanding the threat while evaluating the available recourses, a state can deliver a calibrated response to any strategic challenge.²⁵

For its part, the U.S. Navy has also articulated a vision for how naval strategy and operations fit in with and help advance broader U.S. strategic interests. The *Cooperative Strategy for the 21st Century* outlines the future of the U.S. maritime component strategy. The document’s core theme states that “the United States of America is a maritime nation.”²⁶ There are two pillars of this maritime strategy: the requirement of maintaining a forward naval presence to accomplish the goals of national guidance and, second, the continued joint maritime operations with allies and partners to build a greater naval force.²⁷ According to the *Cooperative Strategy for the 21st Century*, forward naval presence is essential for maintaining a secure global economic system and for ensuring the free flow

²³ Reich and Dombrowski, *The End of Grand Strategy*, 66–84.

²⁴ Reich and Dombrowski *The End of Grand Strategy*, 66–84.

²⁵ Reich and Dombrowski, *The End of Grand Strategy*, 66–84.

²⁶ United States Department of the Navy, *A Cooperative Strategy for the 21st Century* (Washington, D.C.: United States Marine Corps, United States Department of the Navy, United States Coast Guard, 2015), <https://permanent.access.gpo.gov/gpo56257/150227-CS21R-Final.pdf>.

²⁷ United States Department of the Navy, *A Cooperative Strategy for the 21st Century*.

of trade. The strategy emphasizes that joint maritime operations will deter conflicts and provide a better response to aggression.²⁸

The *Cooperative Strategy for the 21st Century* also stresses the importance of the role of littoral combat in the U.S. Navy's future. The U.S. Navy is currently implementing littoral combat ships, which offer an outstanding resource to counter the threats within the Red Sea, into its fleet. Littoral ships can help fight piracy and insurgent groups.

b. Norman Cigar's Work on Non-state Actors

Norman Cigar argues, in "The Jihadist Maritime Strategy: Waging a Guerrilla War at Sea," that states have largely failed to establish effective strategies to counter non-state groups, especially jihadists.²⁹ Cigar's article deepens the understanding of how jihadist strategies have evolved, provides insight to U.S. planners and operators, and explains how maritime strategy fits into jihadist objectives.³⁰ Although Cigar's monograph focuses on the jihadist threat in particular, it has relevance for other non-state actors. In the case of Yemen, the Houthis have shown a willingness and ability to expand operations into the maritime environment. Indeed, it seems that not much has been done as Houthi fighters have begun arming vehicle borne improvised explosive devices (VBIED) against maritime traffic, Cigar's argument for improved maritime strategy proves a valid point.³¹

c. Shaul Shay's Work on the Red Sea Region

In his book, *The Red Sea Terror Triangle*, Shaul Shay argues that, in the wake of the terror campaign launch after 9/11, the United States began to fight wars in Iraq and Afghanistan but dismissed potentially dangerous targets within the Red Sea region.³² Shay's assessment is based on historical data of Islamic terror organizations within Sudan,

²⁸ United States Department of the Navy, *A Cooperative Strategy for the 21st Century*.

²⁹ Norman Cigar, *The Jihadist Maritime Strategy: Waging a Guerrilla War at Sea* (Quantico, Virginia: Marine Corps University, 2017), 2–4.

³⁰ Cigar, *The Jihadist Maritime Strategy*, 2–4.

³¹ Cigar, *The Jihadist Maritime Strategy*, 2–4.

³² Shaul Shay, *The Red Sea Terror Triangle: Sudan Somalia, Yemen, and Islamic terror* (New Brunswick, New Jersey: Transaction, 2007) 1–223.

Somalia, and Yemen. Shay also explores how terrorist organizations within the triangle maintain close ties, providing a base for future growth.³³ Shay provides a very specific comparative study of the three states, which do not have an abundance of published comparative studies available. Shay's research also provides past examples of insurgent threats on maritime operations. Shay's assessments may shed light on the potential growth of terrorist organizations within Yemen if they are left unchecked by U.S. and coalition strategy. Further research into the Houthi organization within Yemen may reveal a disconnection between Sudan and Somalia. Ultimately, it is necessary to complete this comparative study to eliminate any question of possible terrorist organization connections and growth within the Red Sea region.

d. Conclusion

The preceding review provided an overview of the primary schools of the thought regarding the role of seapower in U.S. grand strategy. The elements of these strategic theories are evident in U.S. grand strategy as well as in the U.S. Navy's future strategic forecast. These theories help illuminate the place and purpose of seapower in U.S. grand strategy and provide a way of looking at the potential applications of maritime operations in conflict zones such as Yemen.

D. POTENTIAL EXPLANATIONS AND HYPOTHESES

This thesis inquiries into how, since 2011, the civil war in Yemen has affected U.S. interests, strategy, and operations in the Arabian Peninsula and how the rise of Houthi power, potentially backed by Iranian military assistance, has impacted the maritime context and U.S. naval operations along Yemen's coasts. U.S. and coalition counter insurgency strategy within CENTCOM, and primarily in Yemen, is an independent variable as regards the continuing growth of the Houthis.

³³ Shay and Liberman, *The Red Sea Terror Triangle*, 1–223.

1. Hypothesis One

As the Houthis have expanded their combat capabilities and political control over Yemen, the threat to U.S. and coalition maritime operations has increased, meriting a new strategy.

2. Hypothesis Two

The Houthis do not pose a new threat to maritime operations in the Red Sea region. There is thus no need for a U.S. strategy to eliminate the insurgent threat in Yemen.

3. Hypothesis Three

The U.S. Navy and coalition partners have sufficiently managed the growing Houthi and AQAP threat. It is not necessary to revise the current operational approach strategy or deploy more resources to the region.

E. RESEARCH DESIGN

This thesis inquires as to whether the insurgency within Yemen is a threat to U.S. and coalition maritime operations within the Red Sea Region. In addition to drawing on the theories of U.S. grand strategy, to understand the domestic threat within Yemen—the Houthis—this thesis utilizes a National Defense Research Institute report titled, *Regime and Periphery in Northern Yemen* by Barak A. Salmoni, Bryce Loidolt, and Madeleine Wells to explain how Yemen’s domestic causal factors have enabled insurgency. *Regime and Periphery in Northern Yemen* provides extensive qualitative data and historic coverage on the Yemen government, the Zaydi branch of Islam, the Al Houthi family, “Shi’ite Terror,” and domestic oil production as it pertains to Yemen’s economy.³⁴ *Regime and Periphery in Northern Yemen* also provides empirical demographic data, conflict statistics, and maps of economic and military networks within Yemen.

To understand how the external reactions and foreign influence have either prevented growth or encouraged expansion of Yemen’s insurgency, this thesis researches

³⁴ Barak Salmoni, Bryce Loidolt, and Madeleine Wells, *Regime and Periphery in Northern Yemen: The Huthi Phenomenon* (Santa Monica, CA: RAND, 2010) <http://www.dtic.mil/dtic/tr/fulltext/u2/a520460.pdf>.

U.S. grand strategy and, more narrowly, CENTCOM strategy, and its effect on preventing the threat of Yemen's insurgency to identify whether either foreign influences or U.S. strategy is the primary causal factor for insurgent growth in Yemen.

To examine how insurgency has threatened maritime operations within the Red Sea region, this thesis researches documented maritime insurgent activity since 2011 through recognized media articles, which give real account of maritime threats in the Red Sea. This thesis researches the capabilities of this threat, the impact on maritime operations after each attack, and whether attacks have increased since 2011, therefore identifying whether the threat has increased and whether U.S. and coalition leaders need a revised strategy.

F. CHAPTER DESIGN

Following this introduction, Chapter II examines the Houthi insurgency in Yemen, and Chapter III examines their maritime insurgency and attacks. Chapter IV then examines the U.S. response, and, subsequently, Chapter V summarizes findings, provides recommendations, and suggests a direction for future research.

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II. INSURGENCY IN YEMEN

A. INTRODUCTION

The Arab Spring of 2011 is synonymous with the rise of insurgency in the Middle East. At the time, Yemen was struggling with widespread poverty and decades of government corruption.³⁵ The years that followed saw the rise of Ansar Allah, better known as the Houthis, and the collapse of Yemen's formal government. As the Houthis gained power in parts of Yemen, neighboring Arab states led a military intervention to eliminate the Houthi threat. As the Yemen war escalated, the Houthis, with the support of Iran, expanded their military campaign into the maritime domain.³⁶

While Chapter I introduced the question of whether the Iran-backed Houthi insurgency has increased the maritime threat to the U.S., Chapter II explores how the Houthis have increased instability in the Red Sea region. First, the chapter describes Yemen's security environment following the Arab Spring of 2011 and the current security challenge the Houthis pose and then gives a background of Iran's support to the Houthis as well as its ties to Hezbollah.

B. YEMEN'S SECURITY ENVIRONMENT POST-ARAB SPRING

a. *Ansar Allah and a Collapsed State*

As Yemen's civilian population's resentment toward President Ali Abdullah Saleh grew, the Saleh regime seemingly knew that change was required. Confronted by bloody nationwide protests in 2012, President Ali Abdullah Saleh stepped down, and Vice President Abd-Rabbu Mansour Hadi stepped up.³⁷ Many Yemenis saw the change in office as new hope for the future.³⁸ Even under President Hadi, however, Yemen's government

³⁵ Marcel Serr, "Understanding the War in Yemen." *Israel Journal of Foreign Affairs* 11, no. 3 (January 2018): 357–369, Taylor and Francis

³⁶ Serr, "Understanding the War in Yemen," 357–369.

³⁷ "Yemen: Who Was Ali Abdullah Saleh?" *Al Jazeera*, December 4, 2017, <https://www.aljazeera.com/indepth/spotlight/yemen/2011/02/201122812118938648.html>.

³⁸ Serr, "Understanding the War in Yemen," 357–369.

and infrastructure continued to weaken.³⁹ By 2014, as tensions grew from Saleh loyalists within the government, and public support for Hadi declined as a result of increased unemployment and food scarcity, the Houthis allied with former President Saleh, steering the state of Yemen toward complete collapse.⁴⁰

The alliance of former President Saleh, who still held the loyalty of Yemeni military forces, with the Houthis greatly increased both parties' military capabilities. The Houthis moved aggressively across key provinces in Yemen, capturing the capital city of Sana'a in September 2014 and taking the second largest port and strategic Red Sea city of Hodeida in October.⁴¹ In 2015, the Houthis continued capturing territory near Aden including its international airport and the Al Anad Air Base in Lahij.⁴² The security environment in Yemen worsened after the Houthis bombed President Hadi's temporary headquarters, as well as coalition headquarters, in October 2015.⁴³

As the Houthis grew in power, the United Nations (UN) Security Council began to investigate the source of the Houthis weapons and material aid. In 2015, the UN announced they had discovered the Houthis had been receiving aid from Iran.⁴⁴ In response to the growing threat and the fear that the group would eventually become an extension of Iran in the Arabian Peninsula, the Gulf Cooperation Council (GCC) announced the coalition campaign "Operation Decisive Storm" on March 26, 2015.⁴⁵

Although Operation Decisive Storm stymied the Houthis' momentum, it also had a severe toll on civilian populations. Led by Saudi Arabia and the United Arab Emirates (UAE), Operation Decisive Storm focused heavily on comprehensive air strikes to eliminate the Houthis ground forces and naval blockades to prevent the supply of new

³⁹ Serr, "Understanding the War in Yemen," 357–369.

⁴⁰ Emile Hokayem and David B. Roberts, "The War in Yemen," *Survival* 58, no. 6 (November 2016): 162, <https://doi.org/10.1080/00396338.2016.1257202>.

⁴¹ Hokayem and Roberts, "The War in Yemen," 163.

⁴² Hokayem and Roberts, "The War in Yemen," 165.

⁴³ Hokayem and Roberts, "The War in Yemen," 169.

⁴⁴ Hokayem and Roberts, "The War in Yemen," 163.

⁴⁵ Hokayem and Roberts, "The War in Yemen," 163.

weapons from reaching the Houthis from outside Yemen.⁴⁶ The air campaign had mixed success. UN Security Council 2216 evaluated the coalition air strikes led by Saudi Arabia and found that they had been careless and inaccurate, resulting in unnecessary collateral damage and the death of thousands of civilians.⁴⁷

Coalition naval blockades also had a negative humanitarian impact. Although the blockades intended to prevent outside weapons (especially those originating from Iran) from being smuggled into Yemen, they also prevented vital food and medicine from reaching Yemen's civilian population.⁴⁸ Since Yemen imports over 75% of its consumable goods,⁴⁹ coalition naval blockades consequently created a humanitarian crisis as Yemen's population suffered from an enormous shortage of consumable goods.⁵⁰

Operation Decisive Storm had negative repercussions overall including on maritime operations. Although the operation meant to stop the Houthi insurgency, the immense number of civilian casualties by Saudi and coalition airstrikes angered the Houthis and led to them threatening the maritime environment. In response to Operation Decisive Storm and Saudi Arabia's air strikes in Yemen, Saleh al-Samad, the acting head of the Houthi administration, publicly informed the UN on January 8, 2018 that the Houthis would "turn to tragic options...including cutting off Red Sea and international navigation."⁵¹ Although the Houthis had already performed maritime attacks before Samad's announcement,⁵² Samad's threat was realized when the Houthis began to increase

⁴⁶ Hokayem and Roberts, "The War in Yemen," 166.

⁴⁷ Hokayem and Roberts, "The War in Yemen," 167.

⁴⁸ Hokayem and Roberts, "The War in Yemen," 167.

⁴⁹ Nora Colton, "Yemen: A Collapsed Economy," *The Middle East Journal* 64, no. 3 (September 2010): 410–26.

⁵⁰ Hokayem and Roberts, "The War in Yemen," 167.

⁵¹ Jeremy Binnie, "Yemeni Rebels Threaten Red Sea Shipping," *Jane's Defense Weekly* (January 2018). <https://www.janes.com/article/77021/yemeni-rebels-threaten-red-sea-shipping>.

⁵² Hokayem and Roberts, "The War in Yemen," 167.

maritime attacks in the Red Sea and in the Gulf of Aden.⁵³ Those attacks included using vehicle-borne improvised explosive devices and anti-ship missiles.⁵⁴

b. End of the Saleh-Houthi Alliance and Houthi Empowerment

The Houthis continued to grow in strength, and the Yemen war entered a new phase with the break of the Saleh-Houthi alliance in 2017. Saleh, who had aligned with the Houthis to topple UN backed-president of Yemen, Adb-Rabbu Mansour Hadi, approached Saudi Arabia after the Houthis had accomplished Saleh's strategic objectives.⁵⁵ In December of 2017, Saleh officially broke ties with the Houthis and realigned with Saudi Arabia.⁵⁶ In response to Saleh's betrayal, Houthi-led riots overtook the streets of Sana'a. The riots finally ended on December 4, 2017, when the Houthis executed Saleh.⁵⁷ The riots and execution of Saleh worsened Yemen's already fragile socio- and economic instability, allowing the Houthis take control of the state government with little contest.

The economic collapse of Yemen rendered the state vulnerable.⁵⁸ After the economic collapse, territories in norther Yemen fell under the control of the Houthis' tribal based militia.⁵⁹ In order to maintain the revenue to fund the organization, the Houthis replaced the government tax collectors.⁶⁰ The Houthis also extorted businesses and seized civilian assets to fund their movement, which was estimated to be in excess of 1.62 billion U.S. dollars in annual revenue.⁶¹ As of May 2018, the Houthis maintained control of over

⁵³ Hokayem and Roberts.

⁵⁴ Hokayem and Roberts, "The War in Yemen," 167.

⁵⁵ Hokayem and Roberts, "The War in Yemen," 167.

⁵⁶ Hokayem and Roberts, "The War in Yemen," 167.

⁵⁷ Hokayem and Roberts, "The War in Yemen," 167.

⁵⁸ Hokayem and Roberts, "The War in Yemen," 167.

⁵⁹ Ahmed Himmiche et al., *Panel of Experts on Yemen Report S/2018/68* (United Nations: United Nations Security Council, January 2018), 19, <https://drive.google.com/file/d/1GcS0FtU5FDqowTs7owVxdYJHuN9mPVvI/view>.

⁶⁰ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 3.

⁶¹ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 37.

half of Yemen.⁶² They occupy the capital city of Sana'a, which is also the location of their government headquarters. To the north, the Houthis have taken control of the provinces of Amran and Hijah.⁶³ They have also occupied the Red Sea port of Hodeida, a strategic location that allows the Houthis to regulate and apply duties to all goods that travel into Yemen from Hodeida.⁶⁴ Along the unofficial border of North and South Yemen, the Houthis took control of Bayda,⁶⁵ a town located on a plateau in south-central Yemen and once a regional capital.⁶⁶ This valuable and strategic location provides the Houthis unencumbered smuggling routes from the Persian Gulf, southern Yemen, and through to Sana'a.⁶⁷ Finally, to the south, the Houthis control Taiz, which provides them access to the Gulf of Aden (see Figure 1).⁶⁸

⁶² Tomas Perez, *Yemen Situation Report* (Critical Threats, May 18, 2018), <https://www.criticalthreats.org/briefs/yemen-situation-report>.

⁶³ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 42.

⁶⁴ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 42.

⁶⁵ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 15.

⁶⁶ *Encyclopedia Britannica*, s.v. "al bayda," accessed September 27, 2018, <https://www.britannica.com/place/Al-Bayda>.

⁶⁷ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 15.

⁶⁸ Perez, *Yemen Situation Report*.

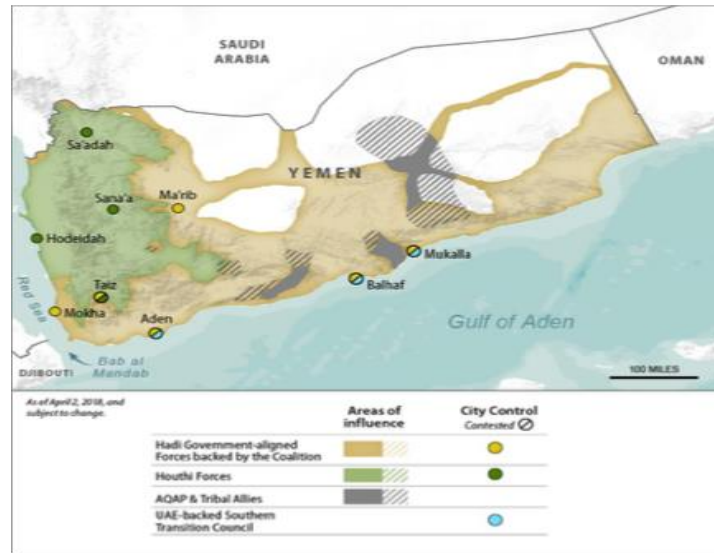


Figure 1. Map of Yemen.⁶⁹

c. A New State

The formality and structure of the Houthi organizations empower their maritime offensive capabilities. After the fall of Saleh, and the officially recognized state of Yemen, the Houthis created a very structured form of government and formally occupied provinces, imposed taxes, and enforced laws.⁷⁰ The Houthis' government is led by the Supreme Political Council, currently Mahdi al Mashat, and UN recognized authority for the Houthis.⁷¹ Receiving direction from the Supreme Political Council, each province has an appointed governor, listed as follows.⁷²

- Faysal Ja' Man, governor of Amran
- Fadhil al-Sharqi, governor of Dhamar
- Nayef Abu Kharfashah, governor of Hijjah

⁶⁹ Himmiche, *Panel of Experts on Yemen Report S/2018/68*, 15.

⁷⁰ Himmiche, *Panel of Experts on Yemen Report S/2018/68*.

⁷¹ Perez, *Yemen Situation Report*.

⁷² Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 24.

- Abd al-Khaliq Badr al-Din al-Houthi, governor of Hodeida
- Ahmed Qatinah, governor of Sana'a
- Faysal Ja' Man, governor of Amran
- Manour al-Lakoumi, Governor Ta'izz⁷³

The Houthis have also organized a systematized military chain of command and combined their state security with the military to form one overarching organization.⁷⁴ Although the Houthi military ground and work force had been composed primarily of tribal militia, the leadership drew from the Yemeni military Officers who had aligned with the Houthis.⁷⁵ Table 1 lists the Houthi military chain of command, including primary role and rank.

⁷³ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 24.

⁷⁴ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 24.

⁷⁵ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 19.

Name	Rank	Position
Muhammad Abd al-Karim al-Ghamari	Major General	Head of General Staff
Ali Hamud al-Mushki	Major General	Deputy Head of General Staff
Muhammad Fadhl	Major General	Head of Navy and Coastal Defense
Abdullah Yahya al-Hakim	Major General	Head of Intelligence
Muhammad Nasser al-Ata'fi	Major General	Minister of Defense
Ali al-Kuhlani	Major General	Head of Military Logistics and Support
Husayn al-Ruhani	Major General	Head of Special Operations
Muhammad al-Miqdad	Major General	Head of Military Operations
Ibrahim al-Shami	Major General	Head of the Air Force

Figure 2. Houthi Military Chain of Command January 2018.⁷⁶

C. TIES TO IRAN

Iran's interest in Yemen may be narrow because its desire to be recognized as a legitimate global power outweighs the limited potential of the Houthis. Iran's support for the Houthis could be as an opportunity to influence non-state actors who are opposing regional powers. Most importantly, Iran's fundamental strategy for Houthis is a low-cost opportunity for Iran to create a strong distraction for the United States, United Arab Emirates, and Saudi Arabia.⁷⁷

⁷⁶ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*.

⁷⁷ Thomas Juneau, "No, Yemen's Houthis Actually Aren't Iranian Puppets," *Washington Post*, May 16, 2016, <https://www.washingtonpost.com/news/monkey-cage/wp/2016/05/16/contrary-to-popular-belief-houthis-arent-iranian-proxies/>.

Saudi Arabia claims that Iran’s support of the Houthis within Yemen has made the conflict in Yemen a proxy war.⁷⁸ From Saudi Arabia’s perspective, by infiltrating Yemen, Iran has sought to destabilize the borders of Saudi Arabia.⁷⁹ Iran, however, rejects claims that it has supported the Houthis militarily.⁸⁰ Saudi Arabia has continued to substantiate their claim of Iran’s support of the Houthis by citing evidence that sea vessels from Iran have been transporting weapons to the Houthis since April of 2009.⁸¹

The history of the al-Houthi family’s connection to Iran began in 1978 and has helped shape the Iranian outlook on politics. Abdul Malik al Houthi studied Shi’a Islam in Iran from 1978–1979 and has been noted to have an affinity for Iran, which may have been influenced in that period.⁸² Until 2004, there was not very much evidence of Iranian involvement within Yemen. After 2004, Iran began a limited support of military, financial, and political aid to the Houthis. This continued into the Arab Spring, but significantly increased in 2014.⁸³

The 2015 UN Security Council Report (S/2018/68) has discovered evidence that Iran has possibly provided significant support to the Houthis.⁸⁴ Beginning in 2009, Iran began increasing the shipping of weapons to the Houthis.⁸⁵ According to UN Security Council 2216, as the Arab Spring continued in Yemen, Iranian fishing vessels were found to be carrying over 900 Iranian anti-tank missiles destined for Yemen. In 2013, the UN reported the interception of several sea vessels, confirming an Iranian shipment of a man-portable air defense system, 122mm rockets, RPG launchers, C-4 plastic, and equipment to build improvise explosive devices.⁸⁶

⁷⁸ Juneau, “No, Yemen’s Houthis Actually Aren’t Iranian Puppets.”

⁷⁹ Juneau, “No, Yemen’s Houthis Actually Aren’t Iranian Puppets.”

⁸⁰ Juneau, “No, Yemen’s Houthis Actually Aren’t Iranian Puppets.”

⁸¹ Juneau, “No, Yemen’s Houthis Actually Aren’t Iranian Puppets.”

⁸² Juneau, “No, Yemen’s Houthis Actually Aren’t Iranian Puppets.”

⁸³ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*.

⁸⁴ “United Nations Security Council Resolution 2216,” Ministry of Foreign Affairs of Yemen, May 31, 2018, <https://www.mofa-ye.org/Pages/united-nations-security-council-resolution-2216/>.

⁸⁵ Ministry of Foreign Affairs of Yemen, “United Nations Security Council Resolution 2216.”

⁸⁶ Himmiche, Et al., *Panel of Experts on Yemen Report S/2018/68*.

The UN has also linked Iran's assistance to the Houthis in the form of unmanned aerial vehicles.⁸⁷ On November 27, 2016, Saudi Arabian border officials intercepted a truck carrying six complete Qasef-1 unmanned aerial vehicles and the components to supply twenty-four more drones.⁸⁸ The investigating UN panel discovered that the Qasef-1 drones were "virtually identical to the Ababil-T," manufactured in Iran.⁸⁹ The vehicles' navigation components had also been manufactured in Iran, leading UN investigators to conclude that Iran had disguised the components to avoid exposing their origin and final destination.⁹⁰

The motivation to conceal the origin of these vehicles correlates with Iran's commitment to not openly violate the Targeted Arms Embargo of 2015.⁹¹ UN Resolution 2216 was issued on April 14th, 2015 in an effort to "reestablish peace, stability, and security of Yemen."⁹² The resolution banned the supply of weapons and military aid to former President Saleh's forces as well as to the Houthis and their counterparts.⁹³ Saudi Arabia has since claimed that Iran is in direct violation of Section 14 of Resolution 2216, which states that "all Member States shall immediately take the necessary measures to prevent the direct or indirect supply, sale or transfer to, or for the benefit of Ali Abdullah Saleh, Abdullah Yahya Al Hakim, Abd Al-Khaliq Al-Houthi, and the individuals and entities."⁹⁴

The UN investigation also concluded that Iran has supported the Houthi maritime capability in the Red Sea.⁹⁵ This support has been correlated with the Houthis' mining of

⁸⁷ Ministry of Foreign Affairs of Yemen, "United Nations Security Council Resolution 2216."

⁸⁸ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 32.

⁸⁹ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 32.

⁹⁰ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 32.

⁹¹ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 32.

⁹² Ministry of Foreign Affairs of Yemen, "United Nations Security Council Resolution 2216."

⁹³ Ministry of Foreign Affairs of Yemen, "United Nations Security Council Resolution 2216."

⁹⁴ United Nations Security Council, *Resolution 2216*; (New York: UN Security Council, 2015), https://www.securitycouncilreport.org/atf/cf/%7B65BF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_res_2216.pdf

⁹⁵ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 34.

the areas along the Red Sea coastline.⁹⁶ In 2017, the United Arab Emirate discovered three sea mines in small port of Mukha in the southern Red Sea.⁹⁷ Two similar mines were discovered in the southern red sea near Thwaq Island, one of which was actually recovered on March 23, 2017 (see Figure 3).⁹⁸ Utilizing data from the Iranian Arms Fair in 2015 (see Figure 4), the UN panel concluded that the mines used by the Houthis in the Red Sea: were “consistent in size and shape of bottom sea mines manufactured in Iran.”⁹⁹

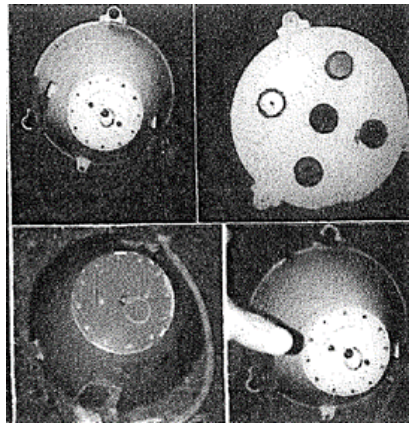


Figure 3. Similar Sea Mines Discovered near Thwaq Island.¹⁰⁰

⁹⁶ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 34.

⁹⁷ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 34.

⁹⁸ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 34.

⁹⁹ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 34.

¹⁰⁰ Himmiche et al., 34.



Figure 4. Image of Sea Mine from Iranian Arms Fair.¹⁰¹

The UN panel concluded that “Iran failed to take the necessary measures to prevent the direct or indirect supply, sale or transfer of Norkan-2h short-range ballistic missiles, field storage tanks for liquid bipropellant oxidizer for missiles, and Ababil-T (Qasef-1) unmanned aerial vehicles to Houthi-Saleh alliance.”¹⁰² Iran released a response to the UN panel, as required by UN Security Council Resolution 2342(2017), which methodically listed Iran’s disputes against the panel’s findings.¹⁰³ Iran firmly argued that the findings of the U.N. panel were “biased” and “based on fabricated evidence by Saudi Arabia.”¹⁰⁴ Iran concluded by summarizing its stand against the panel’s findings, stating that: “the Islamic Republic of Iran categorically rejects those baseless allegations contained in the Panel’s report, and reiterates that it has no policy to transfer to, or manufacture arms in[,] Yemen.”¹⁰⁵

Beyond the supply of weapons and aid, U.S. intelligence has reported that Iran is providing training and political support of Houthi troops. During a public CENTCOM

¹⁰¹ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 34.

¹⁰² Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 2.

¹⁰³ Eshagh Al-Habib, “Permanent Mission of the Islamic Republic of Iran to the United Nations,” (official memorandum, Iran: Ministry of Foreign Affairs, 2018) <https://drive.google.com/file/d/1GcS0FtU5FDqowTs7owVxdYJHuN9mPVv1/view>.

¹⁰⁴ Al-Habib, “Permanent Mission of the Islamic Republic of Iran to the United Nations.”

¹⁰⁵ Al-Habib, “Permanent Mission of the Islamic Republic of Iran to the United Nations.”

statement, General Joseph Votel stated, “Iran has extended its tentacles across the region through numerous proxies...prolonging the civil war in Yemen, threatening Saudi Arabia and the UAE, and risking expansion of Yemen’s civil war into a regional conflict.”¹⁰⁶ The Iranians have provided the Houthis with training on weapons handling, aerial drones, insurgency, and improvised explosives.¹⁰⁷

The Iran-Houthi relationship may not be formed primarily on their connection of Shi’a Islam. In 2014, Iranian President Hassan Rouhani described the Houthi takeover of Sana’a as “a brilliant and a resounding victory.”¹⁰⁸ This statement, although not directly advocating the actions of the Houthis, shows Iran’s hope for continued Houthi victories. According to Thomas Juneau, the Iranians seek out non-state actors, like the Houthis, who are dissatisfied with state institutions and fighting within a fragmented state.¹⁰⁹

D. TIES TO HEZBOLLAH

Lebanese Hezbollah has been assisting the Houthis since before they began their insurgency. According to Jack Freeman, Hezbollah has provided a “model” of insurgency.¹¹⁰ Prominent Lebanese Shi’a leader Mohammed Hussein Fadlallah presented this model to the Houthis through the provisions of videotaped learning aids, books, and even lectures.¹¹¹ Hezbollah continues to provide political support for the Houthis. In 2016, an unnamed Hezbollah commander stated, “After we are done with Syria, we will start with Yemen, Hezbollah is already there...Who do you think fires Tochka missiles into Saudi Arabia? It’s not the Houthis in their sandals, it is us!”¹¹²

¹⁰⁶ Joyce Karam, “US General: Iran Achieved in Five Years in Yemen What It Did in Lebanon in Two Decades,” *The National*, February 27, 2018, <https://www.thenational.ae/world/mena/us-general-iran-achieved-in-five-years-in-yemen-what-it-did-in-lebanon-in-two-decades-1.708639>.

¹⁰⁷ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*.

¹⁰⁸ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*.

¹⁰⁹ Juneau, “No, Yemen’s Houthis Actually Aren’t Iranian Puppets.”

¹¹⁰ Jack Freeman, “The Al Houthi Insurgency in the North of Yemen: An Analysis of the Shabab Al Moumineen,” *Studies in Conflict & Terrorism* 32, no. 11 (October 30, 2009): 1008–19, <https://doi.org/10.1080/10576100903262716>.

¹¹¹ Freeman, “The Al Houthi Insurgency in the North of Yemen. “

¹¹² Jeremy Sharp, “Yemen: Civil War and Regional Intervention,” *CRS Insight*, (October 2016): 19. UNT Digital Library.

E. CONCLUSION

This chapter explored Yemen's security environment following the Arab Spring and documented support to the Houthis by Iran as well as the Houthis' ties to Hezbollah. Following the Arab Spring of 2011, the Houthis have created an unstable security environment, a consequence of the adverse result of the Houthi-Saleh alliance and the Iran's support to the Houthis, which has resulted in the Houthis taking control over strategic territory across Yemen. The following chapter discusses the unstable maritime security environment of the Red Sea region, the Houthis' increased frequency of maritime terrorism, and the various weapons capability utilized by the Houthis.

III. MARITIME INSURGENCY

While Chapter II examined the roots of the Houthi insurgency and Iran's support of it, Chapter III examines the impact on the maritime domain. First, the chapter examines the Houthis' maritime objective then their strategy for maritime insurgency, their missile capacity, and the impacts on the maritime domain.

A. THE HOUTHIS' MARITIME INSURGENCY OBJECTIVE

The Houthis, who have taken primary control of Yemen and desire to be recognized as the legitimate governing body of Yemen, have set their sights on disrupting maritime shipping and the safety of navigation in the Red Sea Region. Their primary targets are Saudi Arabia, the UAE, and U.S. and coalition partners. The political objective for the Houthis would be to force the Gulf Cooperation Council (GCC), primarily Saudi Arabia and the UAE, as well as the United States, into negotiations to end the war in Yemen.¹¹³ Ultimately, the Houthis' strategy for maritime insurgency centers on utilizing the coasts of Yemen to launch manned fast boats, armed drone boats, and medium to long-range missiles.

Piracy has occurred at sea for centuries, but maritime insurgency is a fairly new occurrence.¹¹⁴ Unlike piracy, where seafaring combatants seek to capture maritime vessels and their contents for monetary reward,¹¹⁵ maritime insurgency attempts to disrupt navigational safety in a coercive effort for political gain. Utilizing Yemen's Red Sea coastline and establishing offensive missile vantage points from mountains that overlook Bab el Mandab, a critical maritime strait, allows the Houthis to prey upon the Red Sea's

¹¹³ Stephen Kalin and Rania El Gamal, "Explainer: Why is Saudi Halting Oil Shipments through the Red Sea?," *CNBC*, July 30, 2018, <https://www.cnbc.com/2018/07/30/reuters-america-explainer-why-is-saudi-halting-oil-shipments-through-the-red-sea.html>.

¹¹⁴ Patrick Kiger, "Pirate 101: A Brief History of Piracy," *National Geographic*, (September 2018), <https://www.nationalgeographic.com.au/history/pirate-101-a-brief-history-of-piracy.aspx>.

¹¹⁵ *Merriam-Webster*, s.v. "piracy," accessed September 18, 2018, <https://www.merriam-webster.com/dictionary/piracy>.

U.S. and coalition maritime traffic.¹¹⁶ The Houthis have focused primarily on vessels originating or carrying cargo from Saudi Arabia and the UAE as well as U.S. military ships while the passage of ships that are not directly engaged with the war in Yemen have remained unharmed.

The United States has been targeted due to its involvement supporting Saudi Arabia and the United Arab Emirates with drone strikes, intelligence, mid-air refueling, all of which were approved in March of 2015 by U.S. President Barack Obama.¹¹⁷ Maritime attacks dramatically increased after coalition airstrikes against Houthi forces in Yemen killed more than 140 civilians and injured 525 during a funeral in Sana'a.¹¹⁸

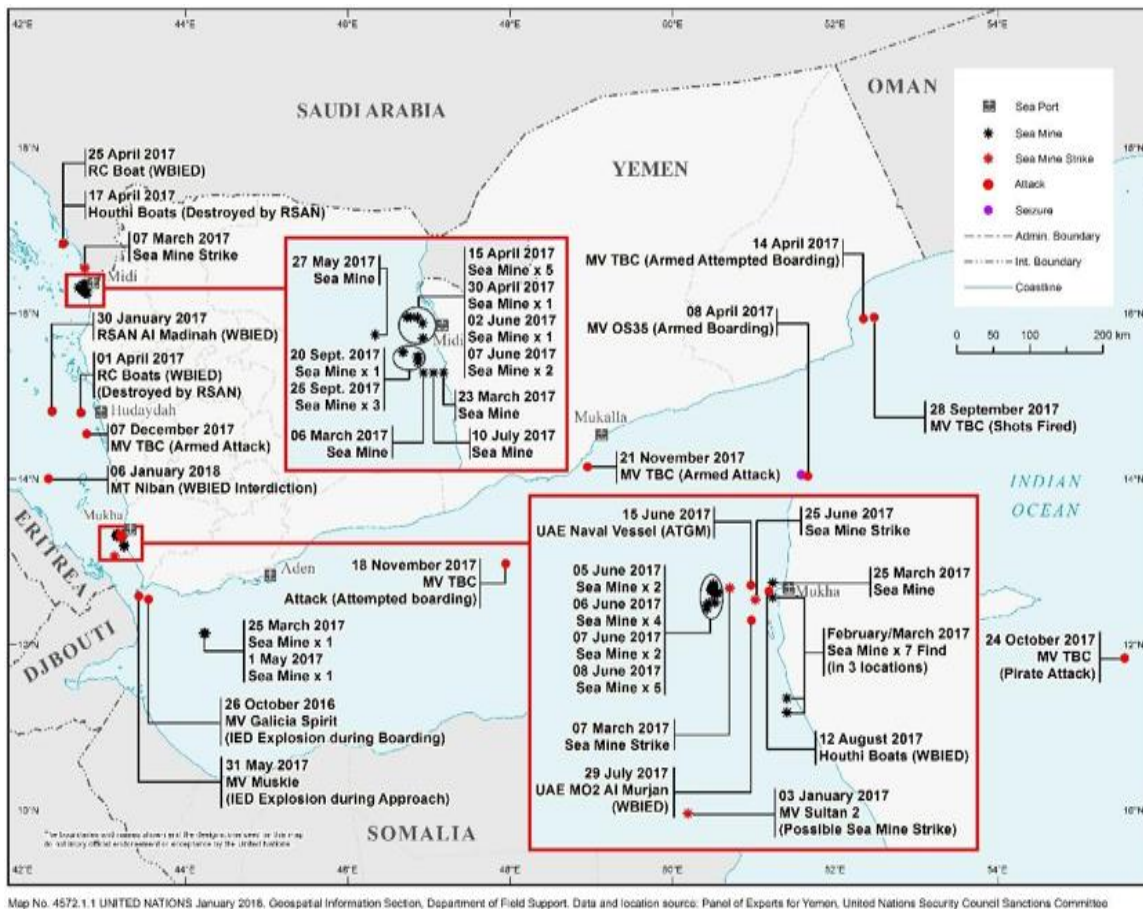
Since the Houthis have control of the strategic Red Sea city Hodeida, and offensive positions to fire anti-ship missiles transiting the Gulf of Aden and Bab el Mandab, there is an extensive account of their maritime attacks since 2016.¹¹⁹ Houthi attacks have had negative impacts on Saudi and UAE oil shipping through the Red Sea. These impacts, longer travel and higher cost shipping, affect the stability of oil markets in Europe and North America. Figure 5 presents a chronological summary of Houthi maritime insurgency in the Red Sea region.

¹¹⁶ Shaul Shay, *The Bab El Mandab Strait and the Houthi Threat* (Washington, DC: Institute for Policy and Strategy, 2016), http://www.herzliyaconference.org/eng/_Uploads/dbsAttachedFiles/BabalMandabstraitandHouthithreat_Shay_19_10_16.pdf, 7.

¹¹⁷ Shay, *The Bab El Mandab Strait and the Houthi Threat*.

¹¹⁸ Shay, *The Bab El Mandab Strait and the Houthi Threat*.

¹¹⁹ Shaul Shay, *The Houthi Maritime Threats in the Red Sea Basin* (Washington, DC: Institute for Policy and Strategy, 2017), http://www.herzliyaconference.org/eng/_Uploads/dbsAttachedFiles/RedSeabasinShaulShay25_9_17.pdf, 9.



Map No. 4572.1.1 UNITED NATIONS January 2016. Geospatial Information Section, Department of Field Support. Data and location source: Panel of Experts for Yemen, United Nations Security Council Sanctions Committee

Figure 5. UN Threat Map Red Sea Region.¹²⁰

B. STRATEGY FOR INSURGENCY

In 2016, there was a rise in Red Sea maritime security incidents directed by the Houthis toward U.S. and GCC maritime vessels. These attacks impaired the strategic sea lines of communication within the Red Sea and limited the ability primarily for U.S. and GCC maritime vessels to exit the Suez Canal.¹²¹ According to Houthi spokesman Mohammad al-Bukhaiti, the Houthis “consider Emiratis and Saudis their enemies, and so anything that belongs to them is a legitimate target for Houthi forces.”¹²² The primary

¹²⁰ Miranda Morton and Katherine Zimmerman, *2018 Yemen Crisis Situation Report* (Washington, DC: Critical Threats, 2018), <https://www.criticalthreats.org/briefs/yemen-situation-report/2018-yemen-crisis-situation-report-march-1>.

¹²¹ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 16.

¹²² Shay, *The Bab El Mandab Strait and the Houthi Threat*, 3.

motivation for the Houthis to disrupt the Saudi and Emirate oil market, and degrade their state-owned assets, is to coerce U.S. and coalition partners into quickly ending the war in Yemen, which would grant the Houthis complete and officially recognized control over Yemen.¹²³ The following sections discuss how the Houthis have primarily utilized drone boats, manned vessels, and medium- to long-range missiles to achieve their objective.

a. Manned Vessels and Drone Boats

The use of drone boats has significantly enhanced Houthi offensive capabilities within the Red Sea. These unmanned vehicle-borne improvised explosive devices (UMVBIED) provide an unmanned, medium range, offensive capability to damage and even incapacitate maritime vessels.¹²⁴ This drone boat tactic physically translates into a shore-based operator who guides a remote-controlled skiff that contains explosives to its desired maritime contact (see Figure 6).¹²⁵

¹²³ Simeon Kerr and Anjali Raval, “Saudi Security Forces Foil Attack on Aramco Fuel Terminal,” *Financial Times*, April 26, 2017, <https://www.ft.com/content/077cd4c0-2a97-11e7-bc4b-5528796fe35c>.

¹²⁴ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 16.

¹²⁵ Himmiche et al., *Panel of Experts on Yemen Report S/2018/68*, 16.



Figure 6. The Unmanned Boat Bomb Detailed during a 12 December 2017 U.S. Presentation on Iranian Assistance to Ansar Allah.

b. Port of Jizan

The Houthis launched a UMVBIED in the Port of Jizan, providing an excellent example of how the Houthis can easily launch, and remotely guide, a UMVBIED as long as they have a favorable location. The Port of Jizan is Saudi Arabia’s most southwest sea Red Sea port.¹²⁶ Regarded as the Red Sea’s most important port due to its close proximity to Bab el Mandab, the Port of Jizan is a primary port for Red Sea shipping and maintains a large flow of maritime traffic.¹²⁷ With over 200 miles of coastline, in addition to being connected to over 100 small islands, the Port of Jizan offered the Houthis an excellent launch point for drone boats.¹²⁸

¹²⁶ “Jizan City Profile, Saudi Arabia,” The Saudi Network, September 2018, <http://www.the-saudi.net/saudi-arabia/jizan/Jizan%20City%20-%20Saudi%20Arabia.htm>.

¹²⁷ The Saudi Network, “Jizan City Profile, Saudi Arabia.”

¹²⁸ The Saudi Network, “Jizan City Profile, Saudi Arabia.”

On April 24, 2017, the Houthis attempted an attack on the Port of Jizan.¹²⁹ Utilizing a UMVBIED, the Houthis remote guided the explosives until intercepted by the Saudi Arabian Coastguard.¹³⁰ Although the UMVBIED was intercepted, it was intercepted only 1.5 nautical miles from its target, coming dangerously close.¹³¹ The Port of Jizan is an oil terminal, owned and operated by Saudi Arabia. The primary motivation for the Houthis against Jizan is in an effort to disrupt Saudi oil market and degrade state owned assets.¹³²

c. MT Muskie

Following the attack in the Port of Jizan, the Houthis apparently displayed their tactical versatility. The Houthis have been accused¹³³ of attacking, on May 31, 2017, the Marshall Island flagged Oil Tanker MT Muskie as it transited through the Bab el Mandab straits.¹³⁴ If it was them, they used a small manned fast boat, which was carrying a manually operated rocket-propelled grenade 7 (RPG-7).¹³⁵ Although the attacks may have been from Somali pirates, the Houthis have not been ruled out as the primary suspects.¹³⁶

The vessel was in transit to Jeddah in Saudi Arabia when attackers fired the RPG-7 near Perim Island, which is only a few kilometers off the coast of Yemen. In this event, the utilization of Perim Island, which is strategically located in the center of the southern entrance of the mouth of Bab el Mandab, allowed the attackers a short-range launch point for attack. The vessels gross tonnage was over 42271 tons at the time of the attacks, representing a significantly large amount of oil destined for Saudi Arabia.¹³⁷

¹²⁹ Kerr and Raval, "Saudi Security Forces Foil Attack on Aramco Fuel Terminal."

¹³⁰ Kerr and Raval.

¹³¹ Kerr and Raval, "Saudi Security Forces Foil Attack on Aramco Fuel Terminal."

¹³² Kerr and Raval, "Saudi Security Forces Foil Attack on Aramco Fuel Terminal."

¹³³ "Oil Tanker Attacked on Key Transit Route along Yemen's Coast," *Middle East Eye*, June 1, 2017, <https://www.middleeasteye.net/news/oil-tanker-attacked-along-key-transit-route-along-yemens-coast-690511801>.

¹³⁴ Shay, *The Houthi Maritime Threats in the Red Sea Basin*.

¹³⁵ Shay, *The Houthi Maritime Threats in the Red Sea Basin*.

¹³⁶ "Oil Tanker Attacked on Key Transit Route along Yemen's Coast."

¹³⁷ Shay, *The Houthi Maritime Threats in the Red Sea Basin*.

The drastic attempt to attack the MT Muskie proved unsuccessful. The manned small boat, which was supposedly deployed by Houthi forces, fired on the MT Muskie with AK-47s and managed to launch three RPG-7s.¹³⁸ Fortunately for the MT Muskie, a four-man security detachment was employed onboard and returned fire at the Houthi small boat.¹³⁹ The only damage to the large vessel was to insulation and paneling after one of the RPG-7s overshot the wheel house.¹⁴⁰

Although this event did not result in damage and proved that maritime attacks can be thwarted, it is only one of many attacks. In the case of the MT Muskie, a security team embarked and prepared to defend the vessel.¹⁴¹ It is not common for vessels to employ full time security teams at sea. If the team had not been embarked, the Houthis may have succeeded in their attack.

d. Saudi Oil Tanker January 6, 2018

Recently, U.S. and coalition forces have resorted to providing military escort to presumed Houthi maritime targets. On January 6, 2018, the Houthis utilized UMVBIED assets to attack a Saudi Arabian oil tanker near the port of Al-Hodeida.¹⁴² GCC spokesman Colonel Turki al-Maliki gave an official press briefing in which he described the two separate UMVBIED attacks that had taken place.¹⁴³ The first attack reached its target, but coalition forces blocked the second.¹⁴⁴ This specific attempt was directly after Saleh al-Salmad, the head of the rebel Houthi government, threatened to “turn to strategic options...including cutting off the Red Sea and international shipping.”¹⁴⁵

¹³⁸ Prime, *Attack on M/T Muskie* (Kallithea, Greece: Prime, 2017), <http://www.prime-marine.net/post/piracy-attack-on-mt-muskie/>.

¹³⁹ Prime, *Attack on M/T Muskie*.

¹⁴⁰ Prime, *Attack on M/T Muskie*.

¹⁴¹ Prime, *Attack on M/T Muskie*.

¹⁴² Binnie, “Yemeni Rebels Threaten Red Sea Shipping.”

¹⁴³ Binnie, “Yemeni Rebels Threaten Red Sea Shipping.”

¹⁴⁴ Binnie, “Yemeni Rebels Threaten Red Sea Shipping.”

¹⁴⁵ Binnie, “Yemeni Rebels Threaten Red Sea Shipping.”

In response to the attack, Saudi Arabia's coalition spokesman, Colonel Turki al-Maliki, warned of inevitable future attacks by the Houthis.¹⁴⁶ Colonel Maliki stated that "there is no doubt that the port of Hodeida has become a starting point or terrorist operations threatening the maritime navigation in the Red Sea and Bab el Mandab."¹⁴⁷ Maliki also requested that the UN take initiative and control of the port from the Houthis.¹⁴⁸ Colonel Maliki's statement and requests further reinforce the outcry from U.S. regional partners to help secure the Red Sea from the Houthis.

e. Saudi Oil Tanker April 3, 2018

Following the attack on January 6, 2018, the Houthis attacked another Saudi Arabian oil tanker on April 3, 2018, near the port city of Hodeida.¹⁴⁹ The Houthis publicly stated that the attack was in retaliation against Saudi Arabia's airstrike on Hodeida, which resulted in twelve civilian casualties.¹⁵⁰ In a public statement by Saudi Arabia, "a coalition warship conducted swift intervention, foiling the attack...but the attack still resulted in a slight and ineffective hit to the oil tanker."¹⁵¹ Marking yet another attack in the Red Sea region, U.N. Secretary-General Antonio Guterres "urged the warring sides in Yemen to reach a political settlement to end a conflict now in its fourth year that has left 22 million people in urgent need of aid."¹⁵²

These events could have been far worse if coalition vessels had not been present to provide defensive measures. Despite the coalition's efforts, these cases show how the Houthis evolved their usage of UMVBIED and their willingness to retaliate against coalition

¹⁴⁶ "Saudi-Led Coalition Says Thwarts Houthi Attack on Oil Tanker," *U.S. News & World Report*, January 10, 2018, <https://www.usnews.com/news/world/articles/2018-01-10/saudi-led-coalition-says-it-thwarts-houthi-attack-on-oil-tanker>.

¹⁴⁷ "Saudi-Led Coalition Says Thwarts Houthi Attack on Oil Tanker."

¹⁴⁸ "Saudi-Led Coalition Says Thwarts Houthi Attack on Oil Tanker."

¹⁴⁹ Sami Aboudi and Stephanie Nebehay, "Saudi Oil Tanker Hit in Houthi Attack off Yemen: Coalition," *Reuters*, April 3, 2018, <https://www.reuters.com/article/us-yemen-security-attack/saudi-oil-tanker-hit-in-houthi-attack-off-yemen-arabiya-tv-idUSKCN1HA1RT>.

¹⁵⁰ Aboudi and Nebehay, "Saudi Oil Tanker Hit in Houthi Attack off Yemen: Coalition."

¹⁵¹ Aboudi and Nebehay, "Saudi Oil Tanker Hit in Houthi Attack off Yemen: Coalition."

¹⁵² Aboudi and Nebehay, "Saudi Oil Tanker Hit in Houthi Attack off Yemen: Coalition."

forces. Their tactic of deploying two separate drone boats was partially successful. Along with Saleh al Salmad's threatening announcement, these attacks show that the Houthis are likely to reinforce their public statements with action. Although Red Sea shipping was not "cut off," the immediate action taken by the Houthis in the Red Sea indicates their motivation to restrict Red Sea shipping by threatening the safety of navigation.

C. MISSILE THREATS

The Houthis have demonstrated both short and long-range missile capability and a willingness to utilize their inventory against what they call "Saudi Arabian aggression in Yemen."¹⁵³ Although these missiles may not always directly attack maritime vessels, they could be utilized against maritime ports and resources decreasing the overall stability and security of the Red Sea region's maritime domain.

The Houthis have focused their missiles on both maritime vessels and fixed land-based targets. Their missiles provide the Houthis with offensive mobility, versatility, and range. Saudi Arabia's air defense is critical because it aids U.S. and coalition forces with a broader tactical picture of the region as well as early warning against threats.¹⁵⁴ Fixed land-based air defense is excellent when defending land-based targets, but the Houthis are not only utilizing their missiles against land-based Saudi Arabian assets, but also against U.S. and coalition maritime traffic in the Red Sea region. This offensive maritime capability the Houthis have displayed has resulted in several catastrophes for Saudi Arabia.

a. Missile Inventory

The Houthis have apparently amassed an impressive weapons stockpile. Saudi Arabia has confirmed over thirty-four missile launches against their state by the Houthis between 2015 through 2017.¹⁵⁵ The Houthis inventory is stockpiled with repurposed S-75

¹⁵³ "Yemen and Saudi Arabia Politics: Houthis Step up Ballistic Missile," *EIU ViewsWire*, December 23, 2015, <http://search.proquest.com/docview/1751383415/abstract/C4ED7911BE344AC4PQ/1>.

¹⁵⁴ "Missile Defense Advocacy Alliance Saudi Arabia," Missile Defense Advocacy Alliance, June 5, 2018, <http://missiledefenseadvocacy.org/intl-cooperation/saudi-arabia/>.

¹⁵⁵ "Yemeni Rebels Enhance Ballistic Missile Campaign," *Jane's by HIS Markit*, June 23, 2017, http://www.janes.com/images/assets/330/72330/Yemeni_rebels_enhance_ballistic_missile_campaign.pdf.

surface to air missiles (SAM) in order to create the Qaher-1.¹⁵⁶ Along with the Qaher-1, the Houthis also obtained the Burkan-1 (see Figure 7), unveiled the Burkan-2 on February 6, 2017,¹⁵⁷ Zelzal 2 (see Figure 8 and Figure 9), Zelzal 3, and various Scud missiles believed to originate from North Korea and Russia.¹⁵⁸



Figure 7. Rebels Unveiled Their Burkan-1 Ballistic Missile on 2 September 2016.¹⁵⁹

¹⁵⁶ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁵⁷ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁵⁸ Shaul Shay, *The ‘Missile War’ in the Arab Peninsula*, (Washington, DC: Institute for Policy and Strategy, 2016), http://www.herzliyaconference.org/eng/_Uploads/dbsAttachedFiles/ShaulShay20_11_16.pdf, 10.

¹⁵⁹ “Yemeni Rebels Enhance Ballistic Missile Campaign.”



Figure 8. 610MM Zelzal 2.¹⁶⁰



Figure 9. Zelzal 2.¹⁶¹

¹⁶⁰ “610mm Zelzal-2,” Military Edge, October 28, 2013, <https://militaryedge.org/armaments/zelzal-2/>.

¹⁶¹ Military Edge, “610mm Zelzal-2.”

The Houthi ballistic missile inventory has the capability to threaten the entire Red Sea region (see Figure 10). The Qaher-1 is claimed to have a range of 155 miles.¹⁶² Also since the Qaher-1 poses a fragmentation warhead, it is tactically employed to detonate above its target, providing a larger impact diameter.¹⁶³ With a range of 391 miles and over double the range of the Qaher-1, the Burkan-1 can reach the outskirts of Al-Taif Air Base when launched from the Yemen-Saudi border.¹⁶⁴ Although the Burkan-1 provided the Houthis within an increased targeting range, Saudi Arabia's Patriot Missile Defense system has consistently intercepted the missile before reaching its target.¹⁶⁵

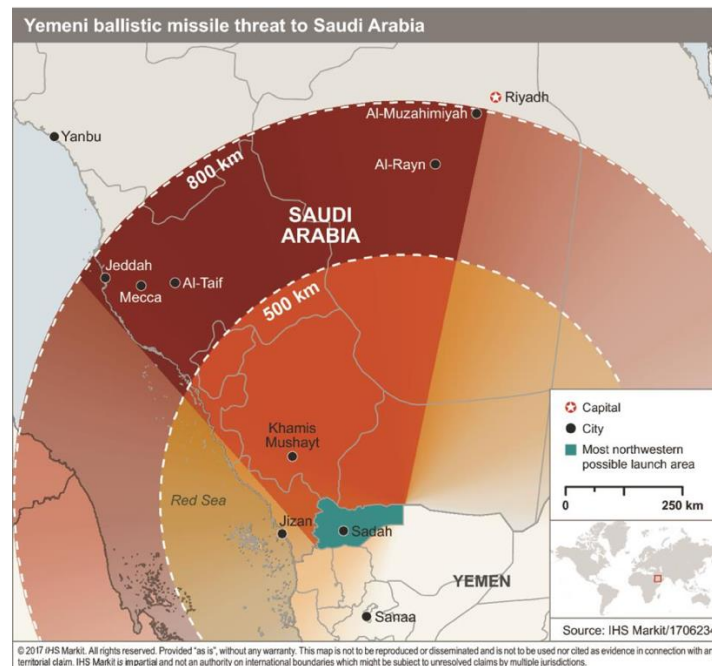


Figure 10. Yemeni Missile Threat Zone.¹⁶⁶

¹⁶² “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁶³ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁶⁴ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁶⁵ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁶⁶ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

On February 6, 2017, the Houthis publicly announced the possession of the Burkan-2 and stated it was the solution to the Saudi Patriot Missile Defense capability.¹⁶⁷ The complete specifications of the Burkan-2 are not publicly available, but pictures of the missile have been obtained and analyzed.¹⁶⁸ After analysis, IHS Intelligence Review has claimed the Burkan-2 possess a “shuttlecock” warhead, which was assessed due to the warhead’s smaller diameter in comparison to Burkan-1.¹⁶⁹ The Burkan-2 “shuttlecock” warhead is named after the missile’s separate sprint vehicle, which detaches after its atmospheric re-entry.¹⁷⁰ Finally, the Burkan-2 is claimed to be highly versatile since it can be mobilized and launched from the rear of a tractor-trailer.¹⁷¹

The Houthis also possess the Zelzal 2 and 3. The Zelzal 2 and 3 are described as an “unguided scud missile.”¹⁷² The primary difference between the two medium range ballistic rockets is that the Zelzal 3 has a slightly farther maximum range.¹⁷³ The technical summary of the Zelzal describes that it was built by Iran, carries a 600 kg warhead, is extremely limited in accuracy, and has an estimated range of 250 km.¹⁷⁴ The Zelzal has reportedly been used in strikes against Saudi Arabia as recently as August of 2016.¹⁷⁵

The Houthi ballistic missile capability has been very threatening to U.S. regional allies. These missiles provide the Houthis with a missile capability comparable to regional state powers like Iran. Although these ballistic missiles could not be used against surface vessels directly, the ability to reach long-range land targets places ports and air-defense capability in peril.

¹⁶⁷ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁶⁸ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁶⁹ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁷⁰ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁷¹ “Yemeni Rebels Enhance Ballistic Missile Campaign.”

¹⁷² Uzi Rubin, “IMDA Threats: Zelzal 2,” Israel Missile Defense Association, August 4, 2006, http://imda.org.il/english/Threats/threats_missile.asp?missileid=15.

¹⁷³ Rubin. “IMDA Threats: Zelzal 2,” Israel Missile Defense Association.”

¹⁷⁴ Rubin. “IMDA Threats: Zelzal 2.”

¹⁷⁵ Shay, “Iranian Rocketry in the Service of the Houthis in Yemen.”

The best anti-surface offensive weapon in the Houthi missile inventory is the C-802. The C-802 is a subsonic missile, originally built by China and later exported to Iran.¹⁷⁶ It is designated as an anti-ship cruise missile with a range of approximately 75 miles.¹⁷⁷ Utilizing an inertial guidance and active radar system, the C-802 is considered to be highly accurate.¹⁷⁸ The C-802 can be fired from ground, air, and sea, making it extremely versatile (see Figure 11).¹⁷⁹ Its capability and launching versatility has been very evident in the numerous instances the Houthis have fired the C-802 against surface vessels in the Red Sea region.



Figure 11. IMDA C-802¹⁸⁰

The capabilities listed above places ships transiting in the Red Sea’s coastal waters, and especially the Bab el Mandab, in range of shore-based attack. Thanks to the mobility of the C-802, and the approximate 75-mile range, the Houthis are capable of reaching approximately 40 percent of the widest 190-mile point of the Red Sea.¹⁸¹ Also, since Bab el Mandab is 18 miles wide, and divided by Perim Island, the Houthis can certainly target a vessel traveling through the strait.¹⁸²

¹⁷⁶ “IMDA Threats: C-802 Cruise Missile,” Israel Missile Defense Association, June 20, 2018, http://imda.org.il/english/Threats/threats_missile.asp?missileid=16.

¹⁷⁷ Israel Missile Defense Association, “IMDA Threats: C-802 Cruise Missile.”

¹⁷⁸ Israel Missile Defense Association, “IMDA Threats: C-802 Cruise Missile.”

¹⁷⁹ Israel Missile Defense Association, “IMDA Threats: C-802 Cruise Missile.”

¹⁸⁰ Israel Missile Defense Association, “IMDA Threats: C-802 Cruise Missile.”

¹⁸¹ *New World Encyclopedia*, s.v. “red sea,” accessed July 6, 2015, http://www.newworldencyclopedia.org/entry/Red_Sea.

¹⁸² *New World Encyclopedia*, “Red Sea.”

b. *Houthi Missile Attacks*

On December 20, 2015, the Houthi Brigadier General Sharaf Luqman reported that the Houthis have selected over 300 ballistic missile targets within Saudi Arabia.¹⁸³ The targets were not announced at the time, but, since 2015, the Houthis have shown diversity in the target profile.¹⁸⁴ With an inventory of approximately seventy missiles, the Houthis may not be capable of reaching 300 targets but still present a threat to the Saudis.

In one of their most catastrophic maritime attacks, the Houthis attack the United Arab Emirates HSV-2 Swift as it transited the Bab el Mandab straights on October 1, 2016.¹⁸⁵ The Houthi-Saleh forces were believed to have launched Chinese built C-802 missiles from shore.¹⁸⁶ The coastal attack by the Houthis devastated the HSV-2 Swift, leaving 22 of 24 crew members dead, obliterating the bridge, and completely incapacitating the vessel (see Figure 12).¹⁸⁷ The United Arab Emirates and the UN both condemned the attack, mentioning the ship was carrying humanitarian aid.¹⁸⁸ On October 6, 2016, the UN Security Council publicly stated that “Members take threats to shipping around Bab el Mandab, a strategically important shipping passage, extremely seriously.”¹⁸⁹

¹⁸³ “Yemen and Saudi Arabia Politics: Houthis Step up Ballistic Missile.”

¹⁸⁴ “Yemen and Saudi Arabia Politics: Houthis Step up Ballistic Missile.”

¹⁸⁵ Kirk Moore, “Former U.S. Navy HSV-2 Swift Wrecked in Yemen Missile Attack,” *WorkBoat*, October 7, 2016, <https://www.workboat.com/news/bluewater/hsv-2-swift-wrecked-yemen-missile-attack/>.

¹⁸⁶ Moore, “Former U.S. Navy HSV-2 Swift Wrecked in Yemen Missile Attack.”

¹⁸⁷ Sharp, “Yemen: Civil War and Regional Intervention.”

¹⁸⁸ Moore, “Former U.S. Navy HSV-2 Swift Wrecked in Yemen Missile Attack.”

¹⁸⁹ Sharp, “Yemen: Civil War and Regional Intervention.”



Figure 12. Image of HSV-2 Swift after it Was Attacked by Houthi-Saleh Forces.¹⁹⁰

Only one week after the Houthis attacked HSV-2 Swift with C-802 missiles, the Houthi forces ashore fired two cruise missiles (possibly C-802) on the Guided Missile Destroyer (DDG-87) USS *Mason* and Afloat Staging Base (AFSB(I)-15) USS *Ponce* while both were transiting north of the Bab el Mandab straits.¹⁹¹ The crew of the USS *Mason* took “immediate defensive measures” by firing two standard Missiles-2 (SM-2) and one evolved Sea sparrow Missile, shielding itself and the USS *Ponce* from attack.¹⁹² Along with firing three missiles, the USS *Mason* also deployed its Nulka anti-ship missile decoy.¹⁹³ According to then Chief of Naval Operations Admiral Jonathan Greenert, the defensive employment of missiles and Nulka by the *Mason* was the first time the U.S. Navy has utilized these weapons, as intended, in a real-world combat engagement.¹⁹⁴ The attacks on the USS *Mason* (see Figure 13) and USS *Ponce* (see Figure 14) have been attributed to the Houthis retaliation for coalition airstrikes in Yemen, which killed more than 140 people

¹⁹⁰ Jeremy Sharp, “Yemen: Recent Attacks Against U.S. Naval Vessels in the Red Sea,” *CRS Insight*, October 21, 2016, <https://fas.org/sgp/crs/mideast/IN10599.pdf>, 6.

¹⁹¹ Sam LaGrone, “USS *Mason* Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack,” *USNI News*, October 11, 2016, <https://news.usni.org/2016/10/11/uss-mason-fired-3-missiles-to-defend-from-yemen-cruise-missiles-attack>.

¹⁹² LaGrone, “USS *Mason* Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack.”

¹⁹³ LaGrone, “USS *Mason* Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack.”

¹⁹⁴ LaGrone, “USS *Mason* Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack.”

and injured 500 more.¹⁹⁵ The Houthis claimed that these airstrike were careless and unmerited since they hit a funeral reception hall where only a few prominent Houthi leaders had gathered with hundreds of innocent mourners.¹⁹⁶



Figure 13. USS *Mason* (DDG-87) Fires an SM-2 during a March 2016 Exercise.¹⁹⁷



Figure 14. FA Float Forward Staging Base (Interim) USS *Ponce* (AFSB(I)-15) on April 11, 2016.¹⁹⁸

¹⁹⁵ LaGrone, “USS Mason Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack.”

¹⁹⁶ Sharp, “Yemen: Civil War and Regional Intervention.”

¹⁹⁷ LaGrone, “USS Mason Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack.”

¹⁹⁸ LaGrone, “USS Mason Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack.”

Beginning on December 18, 2017, the Houthis commenced an increase in their ballistic missile launches, marked with a launch on the Saudi capital of Riyadh.¹⁹⁹ The target was the royal palace, but the attack was not successful due to Saudis claimed interception of the missile before reaching its target.²⁰⁰ Within ten days of the launch against Saudi royal palace in Riyadh, the Houthis fired on Al-Ruwik military base, east of the city of Marib.²⁰¹ The attack coincided with the base visit of Yemen's Vice President Ali-Mohsen al-Ahmar. The missile did not achieve its target, but landed in close proximity to the base.

Becoming more confident in their shore-based capabilities and demonstrating their potential at striking targets at sea, the Houthis attacked a UAE Frigate on July 29, 2017.²⁰² The Houthis, describing themselves as the "Yemeni Navy," publicly took responsibility for the attack near the Port city of Mocha.²⁰³ The Houthis fired a missile attack from the coast, which was most likely a C-802, against a UAE frigate heavily loaded with weapons and ammunition.²⁰⁴ A coalition helicopter assisted the frigate and extinguished the inflamed ship.²⁰⁵ Unfortunately, 12 sailors were killed and over 24 were injured during the attacks.²⁰⁶

¹⁹⁹ "Yemen's Houthis Launch Ballistic Missile on Base East of Sanaa," *BBC*, December 28, 2017, <http://search.proquest.com/docview/1981049803/citation/5A6AFACE10BB48B2PQ/1>.

²⁰⁰ "Yemen's Houthis Launch Ballistic Missile on Base East of Sanaa."

²⁰¹ "Yemen's Houthis Launch Ballistic Missile on Base East of Sanaa."

²⁰² Joseph Trevithick, "Houthi Rebels in Yemen Attacked Another UAE Ship and That's All We Know for Certain," *The Drive*, July 31, 2017, <http://www.thedrive.com/the-war-zone/13068/houthi-rebels-in-yemen-attacked-another-uae-ship-and-thats-all-we-know-for-sure>.

²⁰³ Trevithick, "Houthi Rebels in Yemen Attacked Another UAE Ship and That's All We Know for Certain."

²⁰⁴ Trevithick, "Houthi Rebels in Yemen Attacked Another UAE Ship and That's All We Know for Certain."

²⁰⁵ Trevithick, "Houthi Rebels in Yemen Attacked Another UAE Ship and That's All We Know for Certain."

²⁰⁶ Trevithick, "Houthi Rebels in Yemen Attacked Another UAE Ship and That's All We Know for Certain."

Marking the new year, the Houthis fired upon the Saudi border province of Najran on January 11, 2018.²⁰⁷ The primary target was a Saudi military airport, which provided the Saudi support for its special forces and Apache helicopters.²⁰⁸ No damage occurred since the Saudis missile air defense intercepted the missile over Najran.²⁰⁹

On January 30, 2018, the Houthis fired a long-range Burkan-2 ballistic missile.²¹⁰ Targeting King Khaled International Airport, North of the Saudi capital of Riyadh, the Houthis displayed their relentless effort to strike Saudi targets. This attack triggered the Saudis blockade of all of Yemen's aid and provisions from air, land, and sea.²¹¹

The Houthis continued their ballistic missile launches against Saudi Arabia, claiming they were "in response to Saudi coalition aggression against the Yemeni people."²¹² On April 8, 2018, the Houthi forces launched a Bader-1 ballistic missile against the Saudi radar base in the Ansir region and Khamis Mashet area.²¹³ With a promise by the Houthis to continue launching more missiles at Saudi targets, the targeting of military bases could be seen as an attempt to degrade the Saudi air defense capability. Saudi Arabia has not announced whether the Houthis were successful in reaching their target.²¹⁴

The Saudis continue to succeed in defending against Houthi missile attacks as their Patriot Missile system proves to be very capable even when utilized outside of Saudi borders. On April 15, 2018, the Houthis fired two ballistic missiles on pro-government

²⁰⁷ "Yemen's Houthis Fire Ballistic Missile at Saudi Military Airport," *Xinhua News Agency*, January 11, 2018, <http://search.proquest.com/docview/1986631539/citation/A9F712BCDE2041F4PQ/1>.

²⁰⁸ "Yemen's Houthis Fire Ballistic Missile at Saudi Military Airport."

²⁰⁹ "Yemen's Houthis Fire Ballistic Missile at Saudi Military Airport."

²¹⁰ "Yemen's Houthis Fire Ballistic Missile at Saudi Capital Airport."

²¹¹ "Yemen's Houthis Fire Ballistic Missile at Saudi Capital Airport."

²¹² Leith Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base," *News AMN*, May 19, 2018, <https://www.almasdarnews.com/article/breaking-houthi-forces-fire-ballistic-missile-at-saudi-radar-base/>.

²¹³ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

²¹⁴ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

bases in the city of Mocha, Yemen.²¹⁵ Saudi-led coalition Patriot Missile Defense system was successful in eliminating the two missiles prior to them reaching their desired target.²¹⁶

May 2018 continued to be an aggressive month for the Houthis as they openly fired against the southern Jazan on May 15, 2018²¹⁷ and again against the Saudi radar base in Khamis Mushait area within the Ansir region.²¹⁸ The Saudis claimed the attack on May 15 was successfully intercepted, possibly aimed at innocent civilians and possibly at the Aramco oil facilities.²¹⁹ The attack on May 19, which utilized a Bader-1, received conflicting reports from the Houthis and Saudis.²²⁰ The Saudis claimed to have successfully intercepted the two missiles prior to reaching their targets while the Houthis publicly claimed that they had been successful in reaching their targets.²²¹

The ship types being attacked by the Houthis seem to be very diverse but aimed toward destroying Saudi military and economic infrastructure. On June 19, 2018, the Saudis intercepted another ballistic missile fired by Houthi forces, which was once again targeted at the Aramco facilities in the Ansir region.²²² This recent attack marks a target trend that the Houthis seem to maintain. The Houthis consistent targeting further supports their desire to reduce Saudi Arabia's capability of air defense.

D. CONSEQUENCES OF THE HOUTHİ THREAT IN THE RED SEA

The various maritime tactics utilized by the Houthis in the Red Sea is causing disruptions in critical global trade markets. On July 30, 2018, Saudi Arabia announced that it would suspend all shipments of crude oil from traveling through Bab el Mandab and into

²¹⁵ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

²¹⁶ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

²¹⁷ "Saudi Intercepts Ballistic Missile Fired by Yemen's Houthis."

²¹⁸ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

²¹⁹ "Saudi Intercepts Ballistic Missile Fired by Yemen's Houthis."

²²⁰ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

²²¹ Abdoufadel, "Houthi Forces Fire Ballistic Missile at Saudi Radar Base."

²²² Paraskova, "Saudi Arabia Intercepts Houthi Missile Targeting Aramco Facility."

the Red Sea.²²³ The single reason for diverting Saudi oil shipments is directly due to the Houthi threat in the Red Sea region. Saudi ships, which have been redirected around the southern tip of Africa, have reduced the oil supply to Europe and the United States by an estimated 4.8 million barrels per day.²²⁴

On August 4, 2018, Saudi Arabia announced it would resume its crude oil shipments through the Bab el Mandab and the Red Sea.²²⁵ The Saudi Minister of Energy Khalid al Falih stated that “the decision to resume oil through the strait Bab el Mandab was made after leadership of the coalition took the necessary measures to protect coalition ships.”²²⁶ These measures simply consist of coalition military escort for coalition shipping traveling through the Red Sea region. Although measures have been taken to protect coalition ships, this has not changed the Houthis strategy of disrupting transport and international trade.²²⁷ Abu Khaleel, the Houthi head of security, stated in August 2018, that “the reality cannot be denied ... the UAE and its supporters, the U.S., and Israel, know that we have the capability to attack.”²²⁸ As the Houthis continue to boast that they can completely block Bab el Mandab whenever they desire, the strategy of coalition military forces providing security escort to vessels traveling through the Red Sea does not deliver a long-term solution. Since over thirty percent of the world’s oil supply travels through the Bab el Mandab, which only measures twenty-nine kilometers at its narrowest point, Shaul Shay argues that “the current threat to maritime traffic in the strategic Bab el Mandab strait demands an increased presence and involvement of U.S. and other western naval forces in the area, not only to guard shipping lanes and to enforce naval blockade, but to destroy the

²²³ Rania El Gamal and Stephen Kalin, “Why Is Saudi Halting Oil Shipments through the Red Sea.” *CNBC*, July 30, 2018, <https://www.cnbc.com/2018/07/30/reuters-america-explainer-why-is-saudi-halting-oil-shipments-through-the-red-sea.html>

²²⁴ El Gamal and Kalin, “Why Is Saudi Halting Oil Shipments through the Red Sea.”

²²⁵ “Saudi Arabia Resumes Oil Exports through Red Sea Lane,” *Reuters*, August 4, 2018, <https://www.reuters.com/article/us-yemen-security/saudi-arabia-resumes-oil-exports-through-red-sea-lane-idUSKBN1KP0B7>.

²²⁶ “Saudi Arabia Resumes Oil Exports through Red Sea Lane.”

²²⁷ Hashem Torommah, “Houthis Aim to Disrupt International Transport and Trade,” *The Media Line*, July 30, 2018, <http://www.themedialine.org/news/houthis-aim-to-disrupt-international-transport-and-trade/>.

²²⁸ Torommah, “Houthis Aim to Disrupt International Transport and Trade.”

Houthi anti-ship missiles and to deter Iran from direct and indirect intervention in Yemen and the Red Sea region.”²²⁹

E. CONCLUSION

This chapter discussed the motivations, capabilities, and impacts from Houthi maritime insurgency in the Red Sea region’s maritime domain. Through the utilization of fast boats, UMVBIED drone boats, and ballistic missiles, the Houthis have proven their capability to destabilize and continually degrade the safety and freedom of navigation through the Red Sea region. The Houthis aim to coerce the U.S. and coalition partners into a resolution for the war in Yemen. The next chapter discusses the components of the CENTCOM’s strategy and maritime response to the Houthi threat.

²²⁹ Shay, *The Bab El Mandab Strait and the Houthi Threat*, 6.

IV. THE U.S. RESPONSE

While Chapter III detailed the Houthi impacts on the maritime domain, this chapter provides an overview of the U.S. Central Command's (CENTCOM) strategy in the Middle East to inquire whether this strategy would benefit from a greater focus on the Houthi maritime insurgency off the coast of Yemen. CENTCOM has stated that one of its primary objectives in the region is to maintain freedom of navigation in the Red Sea Region and Persian Gulf,²³⁰ but the imbalance of priorities dominated by efforts in Afghanistan has prevented a stronger U.S. balance of power in the region. As the imbalance continues, the Houthis are likely to remain a threat to the freedom of maritime navigation in the Bab-Al Mandeb and the Red Sea in general. Chapter IV first examines the CENTCOM response to the Houthis and AQAP, then the counter-Iran strategy and CENTCOM success.

A. U.S. CENTRAL COMMAND RESPONSE

CENTCOM commander General Joseph L. Votel has described the combatant command's area of responsibility (AOR) as "a theater primarily focused on maritime operations due to its three primary maritime chokepoints."²³¹ Two of these chokepoints lie within the Red Sea region, the Suez Canal and Bab al Mandeb (see Figure 15).

²³⁰ "Command Narrative," United States Central Command, August 29, 2016, <http://www.centcom.mil/ABOUT-US/COMMAND-NARRATIVE/>.

²³¹ CENTCOM Commander General Votel Testifies. *Iran Strategy*. (C-SPAN, 2018), <https://www.c-span.org/video/?441788-1/centcom-commander-general-votel-testifies-iran-strategy>.



Figure 15. CENTCOM Map.²³²

a. Regional Strategy

CENTCOM’s strategy for achieving U.S. foreign policy interests in the region is designed to realize three main objectives.²³³ First, CENTCOM has emphasized the need to support the Trump administration’s objectives in Afghanistan.²³⁴ Second, CENTCOM will continue to provide U.S. military forces and support Coalition partners against non-state

²³² “Command Narrative” accessed October 3, 2018, <http://www.centcom.mil/ABOUT-US/COMMAND-NARRATIVE/>.

²³³ General Joseph L. Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*. (United States Central Command, 2018), <https://docs.house.gov/meetings/AS/AS00/20180227/106870/HHRG-115-AS00-Wstate-VotelJ-20180227.pdf>.

²³⁴ Charmaine G. Misalucha, “Southeast Asia-US Relations: Hegemony or Hierarchy?” *Contemporary Southeast Asia: A Journal of International and Strategic Affairs* 33, no. 2 (September 15, 2011): 209–28. Project Muse.

actors in the region.²³⁵ Finally, CENTCOM is countering Iran's destabilizing activities across the region since Iran has been recognized for covertly contributing to groups like Hezbollah and the Houthis.²³⁶ Since CENTCOM has placed maritime operations as its primary focus, the Houthi threat in the Red Sea should be highlighted in CENTCOM's objectives. This is not the case, perhaps due in part to the overshadowing commitment in Afghanistan.

b. Is Afghanistan a Distraction?

CENTCOM's role in the region is directed by the Trump administration's foreign policy. The Trump administration's strategy, which has focused CENTCOM's resources in Afghanistan, is a continuation of U.S. post-9/11 policy on countering violent extremism.²³⁷ Previously known as the Global war on Terror, the effort to counter violent extremism has caused CENTCOM to continue centering its counterinsurgency strategy in Afghanistan.

CENTCOM's required support for the administration's strategy has been attributed to the war in Afghanistan reaching its 18th year of operation.²³⁸ Announced August 21, 2017, the Trump administration's foreign policy in Afghanistan is very broad and does not clearly identify the benchmarks of mission accomplishment in the region.²³⁹ The general goal of the policy is the defeat of terrorism in the state.²⁴⁰ The administration has identified

²³⁵ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²³⁶ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²³⁷ Misalucha, "Southeast Asia-US Relations: Hegemony or Hierarchy?" 209–28.

²³⁸ "Remarks by President Trump on the Strategy in Afghanistan and South Asia," The White House, August 21, 2017, <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-strategy-afghanistan-south-asia/>.

²³⁹ Shanthie Mariet Souza, "Trumps 'new' Afghanistan and South Asia Strategy," *Berlin: Institute for Strategic, Political, Security and Economic Consultancy*, (December 2017), <http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/resources/docs/ISPSW-526%20D%27Souza.pdf>.

²⁴⁰ Souza, "Trumps 'New' Afghanistan and South Asia Strategy."

twenty active foreign terrorist organizations that it has targeted as a threat to U.S. national interests.²⁴¹

CENTCOM's role in the region is geared towards counter-terrorism in Afghanistan, but also focuses on Al Qaeda in the Arabian Peninsula and Islamic State (AQAP).²⁴² Operation Inherent Resolve (OIR), CENTCOM's leading counter-terror operation, has focused on countering the Islamic State and occupied areas of Iraq and Syria.²⁴³ Along with U.S. and coalition naval forces positioned in the Persian Gulf and Mediterranean Sea supporting OIR, the United States has maintained a ground force element in Iraq and Syria to maintain stability in the area and prevent insurgent groups from recapturing territory.²⁴⁴

Since CENTCOM has been tasked with operations in Afghanistan and counter-insurgency against Al Qaeda and the Islamic State, it has been strained in order to maintain a permanently forward deployed force across multiple fronts.²⁴⁵ The threats presented by these insurgent groups do pose risks to coalition partners in the region, and do have an impact on regional stability, but this may be shadowing the need to take direct action against the maritime instability that the Houthis have created.

c. Primary Non-state Actor Targets

U.S. policy in Yemen is treading a line between defeating violent extremist organizations while avoiding direct confrontation with its coalition partners' enemy, the Houthis. The Pentagon has stated that it is directly targeting AQAP but has not allowed

²⁴¹ Souza, "Trumps 'new' Afghanistan and South Asia Strategy."

²⁴² Souza, "Trumps 'new' Afghanistan and South Asia Strategy."

²⁴³ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²⁴⁴ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²⁴⁵ John Morrissey, "The Long War: Centcom, Grand Strategy, and Global Security," *Geographies of Justice and Social Transformation* 34 (Athens, GA: University of Georgia Press, 2017).

CENTCOM to directly engage any Houthi forces.²⁴⁶ CENTCOM's primary strategy to counter the Houthi threat is by supporting coalition partners, UAE and Saudi Arabia, to maintain a favorable influence on the region.²⁴⁷ According to General Votel, the primary objective in Yemen is to "ensure nations in close proximity to Yemen are able to secure their border and safeguard their populations, while negotiations lead to secession of hostilities between the Houthis and Saudi Arabia."²⁴⁸ To directly target AQAP, CENTCOM has a small number of troops in Yemen. According to the Pentagon, this small contingent has not been authorized to offensively engage Houthi forces.²⁴⁹

The CENTCOM strategy of offensively targeting AQAP while supporting the Saudi-led coalition has conflict because of opposing state interests between Saudi Arabia and UAE. Saudi Arabia and the UAE have monetarily supported AQAP in the fight against the Houthis.²⁵⁰ Saudi Arabia and the UAE have solicited AQAP to join their coalition forces and allowed them to maintain a large stockpile of weapons, allowing AQAP to continue to grow in strength.²⁵¹ Since CENTCOM is targeting AQAP in Yemen, and formerly recognizes them as a terrorist organization, allowing the Saudi coalition to continue their support is counterproductive to CENTCOM's desired end result in Yemen: eliminating the AQAP insurgent threat.

²⁴⁶ Joyce Karam, "US-UAE Counter-Terrorism Operations on the Rise in Yemen," *The National*, (March 25, 2018): <https://www.thenational.ae/world/mena/us-uae-counter-terrorism-operations-on-the-rise-in-yemen-1.715962>.

²⁴⁷ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²⁴⁸ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²⁴⁹ Karam, "US-UAE Counter-Terrorism Operations on the Rise in Yemen."

²⁵⁰ Jonah Shepp, "While Condemning Iran, the U.S. Contributes to Terrorism in the Middle East Too," *Intelligencer*, August 7, 2018, <http://nymag.com/intelligencer/2018/08/iran-us-contribute-terrorism-middle-east.html>.

²⁵¹ Sheikh Meshal bin Hamad Al-Thani, "The United Arab Emirates and Saudi Arabia Are Aiding Terrorists in Yemen," *Washington Post*, October 18, 2018, <https://www.washingtonpost.com/news/global-opinions/wp/2018/08/29/the-united-arab-emirates-and-saudi-arabia-are-aiding-terrorists-in-yemen/>.

B. CENTCOM COUNTER-IRAN STRATEGY

CENTCOM has taken a direct role in countering Iran in the region, which is one of its three primary objectives. CENTCOM's counter-Iran strategy has five elements: deter conventional Iranian aggression, bolster the U.S. network of allies and partners in the region, compete for influence throughout the region, maintain a persistent maritime presence, and thwart an Iranian-influenced proxy war.²⁵² Iran has been described by General Votel as the primary source for instability in the region. Described by CENTCOM as the "Iranian Threat Network" (IRT), which provides supplies and training to insurgent forces in what has been described by General Votel as, "an effort to counter U.S. and coalition partners in the region."²⁵³ The IRT is a network of regional alliances Iran has created with terrorist and non- state actors.²⁵⁴ Providing the resources to insurgent forces in the Levant and across the Middle East, Iran uses this support as a form of statecraft.²⁵⁵ Iran likely hopes by supporting the Houthis, it can distract U.S. and Saudi efforts in Syria. In the Levant, by supporting Palestinian groups and Lebanese Hezbollah, Iran hopes to thwart any peace process with Israel and continue opposing the Jewish state.²⁵⁶ As a result, the IRT has been able to support the Houthi maritime insurgency and achieve its objective of increased regional influence.

The IRT, or as described by Iran, the "Axis of Resistance," is part of Iran's grand strategy for regional influence and an attempt to counter U.S. coalition regional

²⁵² Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²⁵³ Votel, *Statement before the House Armed Services Committee on the posture of U.S. Central Command terrorism and Iran: defense challenges in the Middle East*.

²⁵⁴ "Axis Rising: Iran's Evolving Regional Strategy and Non-State Partnerships in the Middle East," Center for International Strategic Studies, October 11, 2018, <https://www.csis.org/analysis/axis-rising-irans-evolving-regional-strategy-and-non-state-partnerships-middle-east>.

²⁵⁵ Carol Morello, "Terrorism Is down Worldwide, but State Department Says Iran Maintains near-Global Reach," *Washington Post*, September 19, 2018, https://www.washingtonpost.com/world/national-security/terrorism-is-down-worldwide-but-state-department-says-iran-maintains-near-global-reach/2018/09/19/fc3a85b1-dbac-4496-a295-b78599cd6720_story.html.

²⁵⁶ Daniel Byman, "Proxy Power: Understanding Iran's Use of Terrorism," *Brookings*, July 26, 2006, <https://www.brookings.edu/opinions/proxy-power-understanding-irans-use-of-terrorism/>.

authority.²⁵⁷ Iran recognized the opportunity for greater regional influence after the 2003 invasion of Iraq.²⁵⁸ Following the 2011 Arab Spring, the destabilized Middle East gave way for a “new regional political and security architecture (figure 16).”²⁵⁹ This provided Iran with the opportunity to spread its influence across the region.

²⁵⁷ Payam Mohseni and Hussein Kalout, “Iran’s Axis of Resistance Rises,” *Foreign Affairs*, January 24, 2017, <https://www.foreignaffairs.com/articles/iran/2017-01-24/irans-axis-resistance-rises>.

²⁵⁸ Mohseni and Kalout. “Iran’s Axis of Resistance Rises.”

²⁵⁹ Mohseni and Kalout. “Iran’s Axis of Resistance Rises.”

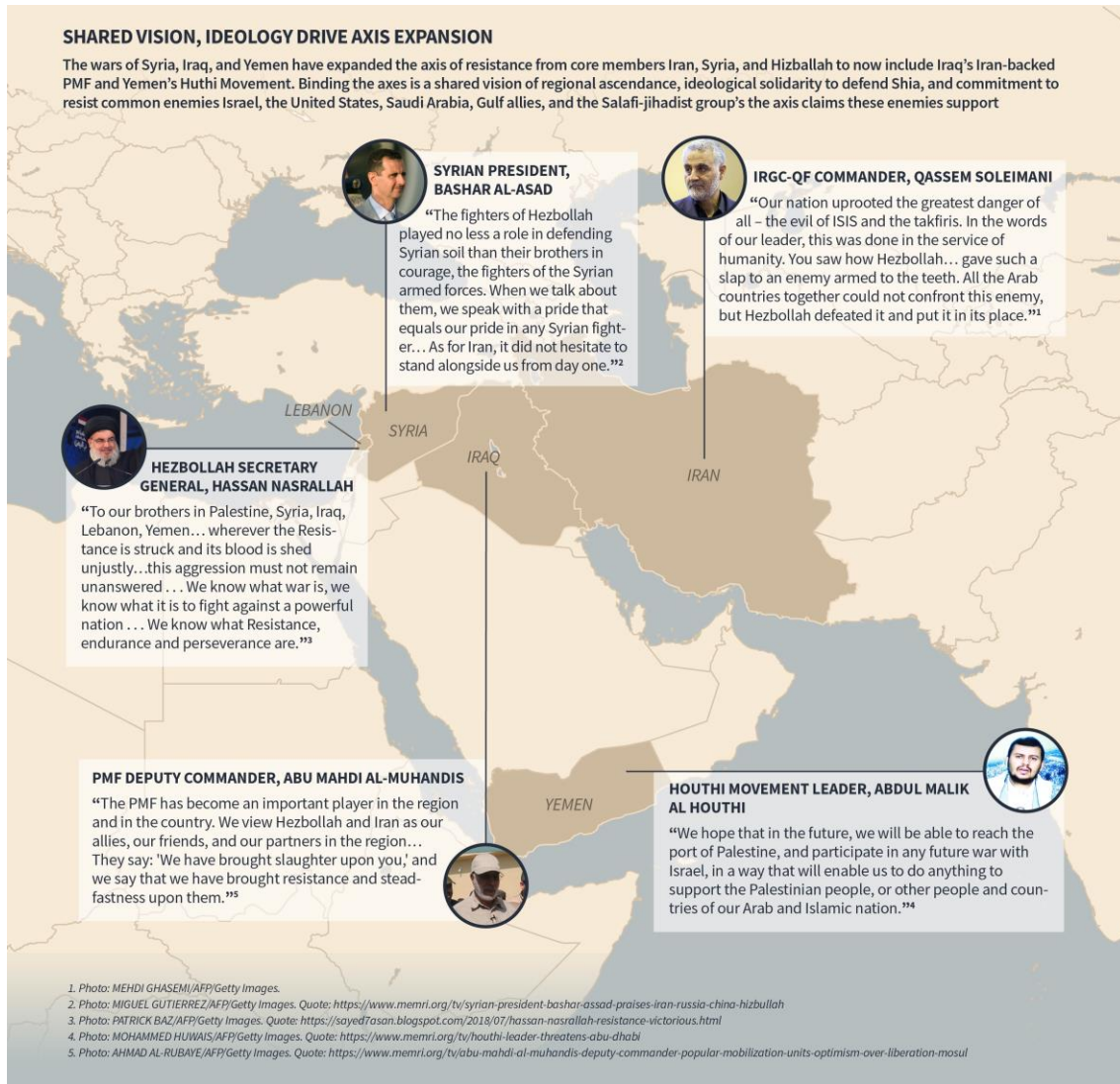


Figure 16. CSIS October 2018²⁶⁰

The Axis of Resistance has evolved today to focus more on Iranian-led alliances and less on proxy sustenance.²⁶¹ Iran has deployed its Qods force, or special operations units, to train and advise non-state actors.²⁶² Hezbollah, being one of the largest recipients

²⁶⁰ Mohseni and Kalout. “Iran’s Axis of Resistance Rises.”

²⁶¹ Mohseni and Kalout. “Iran’s Axis of Resistance Rises.”

²⁶² Mohseni and Kalout. “Iran’s Axis of Resistance Rises.”

and strongest alliance of the Axis of Resistance, has in turn taken an advisory role to the Houthis.²⁶³

Iran's direct support for the Houthis is monitored and assessed by the U.S. Department of State. Since 2012, the department estimates that Iran has spent over sixteen billion dollars aiding non-state actors in region including the Houthis.²⁶⁴ Also, the State Department has concluded that "the expansion of the Houthi maritime offensive capabilities directly reflects the persistent and malign destabilizing influence of the IRGCN in the region."²⁶⁵ By October 2016, U.S. and coalition forces in the Red Sea region intercepted arms shipments originating from Iran and destined for Houthi forces in Yemen.²⁶⁶ Iran was found to be in direct violation of the UN Security Council arms embargo of April 14, 2015, which inhibited the arms transfers and military aid of the Houthis by Iran.²⁶⁷

Countering Iran's influence and its ability to sustain non-state actors is the most direct influence the United States has had in countering Houthi forces in Yemen. The United States conducted a naval blockade of Yemen to prevent Iranian military supplies from reaching Houthi forces.²⁶⁸ Unfortunately, the majority of the goods withheld from Yemen were consumables, resulting in hunger effecting over eighty percent of the population.²⁶⁹ On December 20, 2017, the naval blockade was suspended.²⁷⁰ Since then, a complete draw of the naval blockade has not been imposed, due to the Houthi's unwillingness to concede to unconditional terms and their continued maritime

²⁶³ Mohseni and Kalout. "Iran's Axis of Resistance Rises."

²⁶⁴ "Outlaw Regime: A Chronicle of Iran's Destructive Activities," U.S. Department of State, accessed, September 26, 2018, <https://www.iranwatch.org/sites/default/files/286410.pdf>.

²⁶⁵ U.S. Department of State, "Outlaw Regime: A Chronicle of Iran's Destructive Activities," 28.

²⁶⁶ U.S. Department of State, "Outlaw Regime: A Chronicle of Iran's Destructive Activities."

²⁶⁷ U.S. Department of State, "Outlaw Regime: A Chronicle of Iran's Destructive Activities."

²⁶⁸ Shay, "The Bab El Mandab Strait and the Houthi Threat."

²⁶⁹ Toyin Owoseje, "Five Million Children Face Starving to Death in Yemen, Save the Children Warns," *The Independent*, September 19, 2018, <https://www.independent.co.uk/news/world/yemen-crisis-conflict-children-famine-starvation-death-a8545666.html>.

²⁷⁰ Owoseje, "Five Million Children Face Starving to Death in Yemen, Save the Children Warns."

insurgency.²⁷¹ A partial naval blockade has continued, which focuses on preventing goods from entering the Houthi controlled port of Hodeida.²⁷²

C. ANALYSIS: CENTCOM'S STRATEGY

Utilizing information published by the Congressional Research Committee and non-government organizations (NGO), this section presents three primary elements of CENTCOM's counter-Houthi strategy to examine their effectiveness. First, the effectiveness of Saudi Arabian and the U.A.E.'s ability to target and eliminate Houthi forces has not been successful. Second, the U.S. and its coalition have not been effective in removing the Houthi forces out of occupied territory. Finally, the increased U.S. and Coalition maritime presence in the Red Sea has had a low impact on Houthi maritime insurgency. Although two of these elements do not directly incorporate U.S. naval forces, or involve Houthi maritime insurgent forces, the Houthis' capacity to maintain a force and occupy territory directly contributes to their ability to conduct maritime insurgent operations.

The primary state involved in air strikes to counter Houthi forces in Yemen has been Saudi Arabia.²⁷³ According to an April 2018 Congressional Research Service report, over 16,000 airstrikes against Houthi forces have been conducted since the start of the war in 2015.²⁷⁴ Amazingly, coalition forces have not established a process to measure the success of these airstrikes.²⁷⁵ Success in the case of these airstrikes would be to eliminate

²⁷¹ Matt Brown, "Amnesty Accuses Saudi-Led Forces and Houthi Rebels of Possible War Crimes," *ABC News*, June 22, 2018, <http://www.abc.net.au/news/2018-06-22/yemen-houthis-and-saudi-forces-hold-up-food-aid-fuel/9897684>.

²⁷² Brown, "Amnesty Accuses Saudi-Led Forces and Houthi Rebels of Possible War Crimes."

²⁷³ Will Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen," *Yemen Peace Project*, April 17, 2018, <https://www.yemenpeaceproject.org/blog-x/2018/4/17/sfrc-vs-crs>.

²⁷⁴ Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen."

²⁷⁵ Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen."

the target Houthi forces while ensuring minimal collateral damage to the civilian population.²⁷⁶

According to the UN Human Rights Office, Congressional Research Committee, and NGO Armed Conflict Location and Event Data Project (ACLED), the airstrikes conducted by Saudi Arabia have been unsuccessful.²⁷⁷ First, the accuracy and target discretion of the Saudi's has led to over 4,800 of the 16,000 attacks being carried out on non-military sites.²⁷⁸ The majority of Houthi-occupied territory is considered a non-military site and requires Saudi Arabia to proactive better target discretion in order to minimize collateral damage.²⁷⁹ The U.N High Commissioner for Human Rights has identified these airstrikes as the "leading cause of civilian casualties."²⁸⁰ Compared to Houthi forces, the civilian death toll in Yemen has been devastating. According to the ACLED, Yemen has suffered fifty thousand civilian casualties from January 2016 through July 2018.²⁸¹ The majority of these deaths occurred in the first nine months of the conflict, described as the deadliest.²⁸²

The Houthis continue to control and govern the majority of Yemen. CENTCOM has placed ground forces in Yemen, but are not authorized to engage Houthi forces and are strictly to provide training and security to Saudi forces. Due to the Saudi's ineffective ground forces, they have continued to sustain heavy losses and have been unsuccessful in

²⁷⁶ Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen."

²⁷⁷ Kareem Fahim, "The Deadly War in Yemen Rages on. So Why Does the Death Toll Stand Still?" *The Washington Post*, August 3, 2018, https://www.washingtonpost.com/world/the-deadly-war-in-yemen-rages-on-so-why-does-the-death-toll-stand-still-/2018/08/02/e6d9ebca-9022-11e8-ae59-01880eac5f1d_story.html?utm_term=.eb6f67b78665.

²⁷⁸ Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen."

²⁷⁹ Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen."

²⁸⁰ Picard, "Senate Hearing and CRS Report Show Two Sides to Congressional Engagement on Yemen."

²⁸¹ Fahim, "The Deadly War in Yemen Rages on. So Why Does the Death Toll Stand Still?"

²⁸² Fahim, "The Deadly War in Yemen Rages on. So Why Does the Death Toll Stand Still?"

removing Houthi occupation.²⁸³ Since February 2015, to date (November 14, 2018), the Houthis still maintain a strong hold over the majority of Yemen.²⁸⁴ This territory spans from the northern border of Yemen to the second most southern province of Taiz.²⁸⁵ Unaffected from the east, the Houthis have held continuous control of over sixty percent of Yemen's Red Sea coastline, including the strategic port of Hodeida (see Figure 16).²⁸⁶

²⁸³ A. Yemeni., "Saudi-Led Coalition Cannot Deny Presence of Yemen Ground Forces," April 10, 2018, <https://www.alaraby.co.uk/english/indepth/2018/4/10/saudi-led-coalition-cannot-deny-yemen-ground-forces>.

²⁸⁴ Alia Chughtai and Faisal Edroos, "Yemen Conflict: Who Controls What," *Al Jazeera*, September 19, 2018, <https://www.aljazeera.com/indepth/interactive/2016/08/yemen-conflict-controls-160814132104300.html>.

²⁸⁵ Chughtai and Edroos, "Yemen Conflict: Who Controls What."

²⁸⁶ Chughtai and Edroos, "Yemen Conflict: Who Controls What."

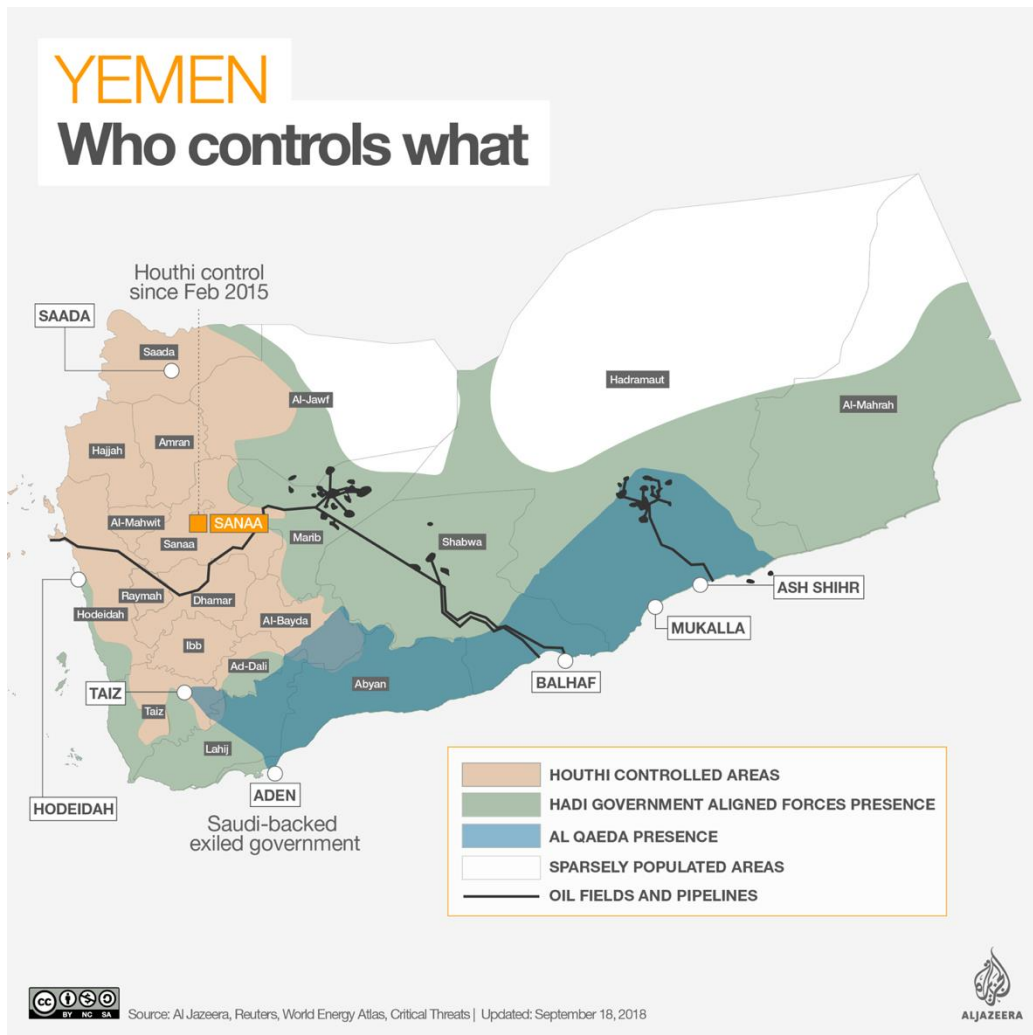


Figure 17. Territory Map Yemen.²⁸⁷

Due to the increased maritime threat posed by the Houthis, CENTCOM responded by increasing its naval presence in the Red Sea region.²⁸⁸ Beginning in February 2017, additional (varying between 1–2) destroyers were tasked to patrol the Red Sea waters along a 1400 nautical mile route.²⁸⁹ U.S. Naval destroyers carry a compliment of anti-air and anti-ship missiles, capable of defense against Houthi attack, but their primary role in the

²⁸⁷ Chughtai and Edroos, “Yemen Conflict: Who Controls What.”

²⁸⁸ Christopher Cavas, “US Navy Beefs up Red Sea Presence,” *Defense News*, August 8, 2017, <https://www.defensenews.com/digital-show-dailies/idex/2017/02/11/us-navy-beefs-up-red-sea-presence/>.

²⁸⁹ Cavas, “US Navy Beefs up Red Sea Presence.”

Red Sea region was to provide coalition partners with maritime security.²⁹⁰ The secondary role of these destroyers is to prevent the smuggling of Iranian military arms and aid to the Houthi.²⁹¹

The U.S. Navy and coalition forces have had some success in intercepting Iranian goods destined for Houthi forces. As the rate of interception continues to increase, each interception brings large caches of weapons. For example, on August 31, 2018, Guided Missile Destroyer USS *Jason Dunham* intercepted an Iranian-made dhow carrying over 1000 weapons; the majority of these were AK-47 rifles.²⁹²

D. BALANCE VERSUS DOMINANCE

The CENTCOM strategy in the Middle East has focused on dominance rather than balance. The overwhelming and eighteen-year war in Afghanistan distracts from other regional priorities. Rather than approaching the region with the expectation of completely eliminating all targeting threats in a specific state like Afghanistan, and in doing so focusing efforts in that state, a strategy of regional balance of power may prove to be more effective.

John J. Mearsheimer argues that the United States needs a new grand strategy on terrorism. The continuation of maintaining a forward deployed force in the Middle East, which he describes as a pursuit for global dominance, is not sustainable.²⁹³ Rather than pursuing global dominance, Mearsheimer states, “offshore balancing costs considerably less...allowing the [United States] to deal with the threats it faces in smarter and more discerning ways.”²⁹⁴

Other scholars have criticized U.S. policy in the Middle East over the last decade. John Morrissey, also an expert in U.S. grand strategy, attributes CENTCOM’s present

²⁹⁰ Cavas, “US Navy Beefs up Red Sea Presence.”

²⁹¹ Cavas, “US Navy Beefs up Red Sea Presence.”

²⁹² “US Military Release Video Showing Arms Smuggling off Yemen,” *Arab News*, August 31, 2018, <http://www.arabnews.com/node/1364066/middle-east>.

²⁹³ Mearsheimer, “Imperial by Design.”

²⁹⁴ Mearsheimer, “Imperial by Design.”

strategy as a continuation of the Carter Doctrine.²⁹⁵ Morrissey states that, “for the past 30 years, CENTCOM’s military strategy to secure the aleatory future of the most energy rich region on earth, has been one of forward presence, deterrence, and readiness to intervene.”²⁹⁶ This strategy has resulted in the “geo-economic shaping of the most energy rich region on earth.”²⁹⁷ Today, in an era of globalization, Morrissey concludes that the U.S. grand strategy has “caused CENTCOM to be the ‘neo-liberal capitalist world policemen.’”²⁹⁸

Mearsheimer and Morrissey both have strong arguments regarding CENTCOM’s present mission focus. Mearsheimer’s global dominance theory explains why CENTCOM continues to focus on Afghanistan. After 18 years, economic and government stability have still not been accomplished in the region. Since Mearsheimer believes that the U.S. desires global dominance, the insurgent forces in Afghanistan have prevented the United States from establishing a sustained democratic government and economy. If CENTCOM shifted its strategy in line with offshore balancing, the resources required to sustain security in across the middle east would not be as constrained, allowing the U.S. to increase its effort to counter Houthi forces.

Morrissey’s strategic theory of geo-economic shaping coincides with CENTCOM’s strategic focus in the region. CENTCOM has been tasked with ensuring the uninterrupted global trade of oil and petroleum from regional partners.²⁹⁹ Ensuring the three primary choke points in the region do not become constrained to maritime shipping is essential to the success of this mission. The U.S. support for Coalition partners in the fight against the Houthis has ensured shipping through the Red Sea has continued, but it has not gone

²⁹⁵ John Morrissey, “US Central Command and Liberal Imperial Reach: Shaping the Central Region for the 21st Century,” *Geographical Journal* 182, no. 1 (March 2016): 15–26, <https://doi.org/10.1111/geoj.12118>.

²⁹⁶ Morrissey, “US Central Command and Liberal Imperial Reach: Shaping the Central Region for the 21st Century,” 23.

²⁹⁷ Morrissey, “US Central Command and Liberal Imperial Reach: Shaping the Central Region for the 21st Century,” 23.

²⁹⁸ Morrissey, “US Central Command and Liberal Imperial Reach: Shaping the Central Region for the 21st Century,” 23.

²⁹⁹ “Command Narrative,” August 29, 2016.

uninterrupted. If Houthi forces are able to significantly increase the threat level to maritime traffic in the Red Sea region, which would affect the trade of oil and petroleum, CENTCOM would need to shift its focus from Afghanistan to the Red Sea to counter this increased threat.

E. CONCLUSION

The required response to the Houthi maritime insurgency falls under the responsibility of CENTCOM. Due to the secondary role CENTCOM has taken in the war against the Houthis, the Houthis have continued to retain their force and occupy the majority of Yemen. CENTCOM's counter-Iran strategy has prevented the Houthis from expanding their weapons capability any further, but this strategic element has not reversed the training and aid the Houthis have already received over the past decade. The current strategy, which relies on Saudi Arabia to eliminate the Houthi ground forces, has not been effective in removing the Houthis or eliminating the maritime threat they pose. The consequence of this strategy has primarily resulted in the devastating humanitarian crisis and the enormous civilian casualty rate in Yemen. The following chapter discusses possible solutions to the Houthi conflict and alternative strategies to maintain freedom and safety of navigation in the Red Sea region.

V. FINDINGS AND RECOMMENDATIONS

A. INTRODUCTION

This thesis sought to inquire as to whether the Iran-backed Houthis have threatened maritime security and the freedom of navigation for U.S. and coalition vessels in the greater Red Sea region and, thus, to inform as to any potential need for the U.S. to change its strategy. The thesis found that Houthi aggression at sea has directly affected the maritime environment in the Red Sea Region, primarily for U.S. and coalition vessels. This thesis has supported U.S. naval operations in the Red Sea region, and CENTCOM area of responsibility (AOR) more generally, by examining the impact of Yemen's insurgency on U.S. and coalition maritime operations.

B. HYPOTHESES

This thesis examined whether the U.S. needs to change its Yemen strategy by analyzing the extent of Houthi maritime insurgency in the Red Sea. The thesis primarily focused on the Houthis' motivations for insurgency, how Iran's assistance has elevated their capabilities, and the Houthis' willingness toward and frequency of attacks as well as their capabilities and the U.S. response. The thesis presented three hypotheses. The first hypothesis posited that, as the Houthis expanded their combat capabilities and political control over Yemen, the threat to maritime operations would increase. The second posited that the Houthis did not pose a new threat to maritime operations in the Red Sea region and that there was no need for a strategy to eliminate the insurgent threat in Yemen. The third hypothesis posited that the U.S. Navy and coalition partners have sufficiently managed the growing Houthi threat, requiring no further action on their part. This thesis finds the first hypothesis to carry the most weight.

C. FINDINGS

Prior to 2014, the Houthis did not utilize maritime insurgency as a primary tactic in the Red Sea. The present unstable maritime environment is the adverse result of the Houthi-Saleh alliance enabled by Iran's support, which has resulted in the Houthis taking control

of strategic territory across Yemen. As of October 2018, the Houthis maintained control of over half of Yemen.³⁰⁰ As the Houthis maintain their presence in the Red Sea region, U.S. and coalition interests have been impacted. The Houthi maritime threat is not due to their ability to occupy territory, but rather from their maritime missile and VBIED capability. As the Houthis have expanded their combat capabilities and political control across northern Yemen, the threat to maritime operations has increased.

A vital element of this thesis explained the core motivation of Houthis desire to conduct maritime attacks against U.S. and Saudi Arabia's coalition vessels. The evidence that the Houthis have not targeted maritime vessels who are not involved in the war against Houthi forces in Yemen supports the idea that the Houthis' primary motivation is to end the humanitarian crisis, end the war, and be officially recognized by the UN as Yemen's government.

As the war in Yemen rages on, the Houthis continue to threaten U.S. and coalition vessels. The utilization of manned fast boats, UMVBIED drone boats, and ballistic missiles have proven the Houthis capability to destabilize maritime security, especially by threatening the freedom of navigation through the Bab al-Mandeb. The Houthis have utilized anti-surface C-802 missiles against U.S. vessels like the Guided Missile Destroyer USS *Mason* and have relied on their VBIED tactics against Saudi Arabian oil tankers.

Houthi forces have resorted to maritime insurgency because they aim to coerce the U.S. and coalition partners into a resolution for the War in Yemen. Neither the Houthis nor Saudi Arabia seem willing to concede. Saudi Arabia refuses to negotiate an end to the war unless the Houthis are willing to withdraw from their occupied territory unconditionally. The Houthis' primary goal is to become the government authority of Yemen, so they are unwilling to concede to the Saudis unless their terms for permanent authority of northern Yemen are met.

The Saudi-led response of Operation Decisive Storm, and the coalition naval blockade of imported goods into Yemen has not been successful. The objective of the Saudi

³⁰⁰ Perez, "Yemen Situation Report."

response was to return Houthi-occupied territory to the Saleh regime and eliminate the Houthi military threat. The Houthis remain in control and occupy over half of Yemen, have maintained a form of government in Sanaa, and continue to display the capability to use military force against their opponents.

The largest impact of the Saudi coalition response has not been on the Houthis but on Yemen's civilian population. Due to Saudi Arabia's imprecise air raid tactics, the already dilapidated infrastructure of Yemen has been obliterated. Civilians continue to be the largest casualties of the air strikes against Houthi forces. The naval blockade restricted food and supplies from entering into Yemen, which has exasperated mass famine across the country. Finally, due to the air strikes and naval blockades, the lack of medical facilities and supplies allowed a massive outbreak of cholera. Overall, the impact of coalition operations has been a humanitarian crisis.

The United States, primarily CENTCOM, has not taken adequate direct action against Houthi forces. CENTCOM's passive role in the conflict, and limited maritime assets dedicated to the Houthi threat in the Red Sea region, could be one of the elements that have allowed the Houthis to continue operating. The Trump administration's regional foreign policy, which directs CENTCOM's regional strategy, has focused on completing its objectives in Afghanistan. CENTCOM has taken an active role in the region to limit Iran's influence, which, according to UN Security Council reports, has aided the Houthis, but the Houthis have already established military training and a cache of weapons. The training and weaponry provided by Iran is already being utilized by the Houthis, so the significant impact from limiting Iranian influence may not be seen in the foreseeable future.

D. RECOMMENDATIONS

This thesis provides the three following recommendations for a change in foreign policy, U.S. Naval activity in the Red Sea, and Saudi Arabian air strikes against Houthi forces. First, this thesis recommends a shift in policy to provide a balanced U.S. and coalition military presence throughout the Middle East. The policy objective needs to shift from Afghanistan and properly distribute forces with a clear objective: maintaining security for U.S. allies throughout the region and preventing the rise of terrorist organizations.

While Afghanistan does meet these criteria of this policy, a more balanced regional policy could aim at objectives that do not require indefinite and unsustainable forward deployed forces.

Following a change in regional foreign policy, this thesis also recommends a shift in U.S. naval presence in the Red Sea region. As previously stated, CENTCOM has focused on the Suez Canal and Bab al-Mandeb as high priority choke points that must not be impeded. The U.S. naval presence through these waterways should then be reinforced. Taking into account the limited maritime assets available to deploy, a possible solution could be the forward deployment of the newly developed U.S. Navy Mark VI patrol craft.

Finally, based on the data of Saudi Arabian air strike accuracy against Houthi forces, discussed in Chapter IV, this thesis recommends more discretion from Saudi Arabia toward civilian casualties. Every air strike, regardless of the target, must have an acceptable limit in collateral damage. Saudi Arabia has not shown restraint in its airstrikes; it has accepted entire funeral processions as collateral damage in the effort of eliminating less than three Houthi targets. Since Houthi targets continue to live amongst non-combatants, creating difficulty in efficiently conducting air strikes, Saudi Arabia should strengthen and reinforce its ground forces in Yemen.

E. SUGGESTIONS FOR FUTURE RESEARCH

Future research could focus on and be split into two separate research topics. First, since the threats within CENTCOM continue to grow and evolve, citing the Houthis as an example, future research could examine how the United States might best shift its regional foreign policy to properly control regional threats. A permanently deployed force in support of the continued war in Afghanistan is not sustainable and has allowed threats to grow in other areas of the region. Future research could provide insight on how to balance Afghanistan with other regional priorities. Future research could also focus on how to counter the Houthi threat within the Red Sea region. Should the U.S. assume a strategy of containment in Yemen? Should the U.S. Navy Mark VI Patrol Craft be forward deployed to the Red Sea and Gulf of Aden? The craft are highly capable and may be found to be the essential platform to tactically and efficiently reduce Houthi maritime insurgency.

F. CONCLUSION

The undeniable threat in the Red Sea region against U.S. and Saudi-led coalition vessels cannot continue to receive the same response. The only clear result of continuing the current strategy against the Houthi maritime threat is likely to be a sustained humanitarian crisis in Yemen while realizing limited advances against Houthi forces. Crucially, as the humanitarian crisis worsens, the Houthis clearly intend to continue and even escalate maritime insurgency against U.S. and Saudi Arabian coalition vessels in the Red Sea. U.S. leadership needs to consider a revised response to protect interests.

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