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THESIS

**REVITALIZING MARITIME SECURITY:
IS SMART THE NEXT ELEMENT?**

by

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December 2019

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REVITALIZING MARITIME SECURITY: IS SMART THE NEXT ELEMENT?

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ABSTRACT

Project Seahawk is a multiagency program that brings state-of-the-art technology and a regional approach to the problem of port security critical infrastructure in Charleston, South Carolina. Project Seahawk, now known as the Seahawk Interagency Operation Center (IOC), is alive within the confines of the United States Coast Guard, albeit as a smaller project. The Special Maritime Action Response Team (SMART) would be a multidisciplinary, multiagency unit that protects the maritime domain of South Carolina using intelligence gathered by the Seahawk IOC. This thesis examines potential challenges to the process of forming SMART with the Seahawk IOC, particularly the security capability gaps in the maritime domain with federal, state, and local stakeholders due to insufficient manpower and funding. The SMART concept will use elements of National Security Presidential Directive 41 and Homeland Security Presidential Directive 13 as a baseline for evaluating the maritime security capability. The SMART concept will make Seahawk more efficient in handling maritime criminal threats to radiation detection in Charleston by providing the first responder with an avenue of options. The Seahawk IOC addresses the security capability gaps, but SMART will be more effective in the Lowcountry maritime domain. Together, the Seahawk IOC and SMART will be a one-stop shop for interagency maritime security in Charleston.

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TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	RESEARCH QUESTION	2
B.	SMART: AN OVERVIEW	2
	1. SWAT/Bomb Team.....	5
	2. Aviation/Search and Rescue Team.....	5
	3. Marine Patrol/Dive Team.....	6
	4. Emergency Management/Hazmat/Explosive Detection K9 Team.....	7
C.	LITERATURE REVIEW	7
	1. Interagency Collaboration	8
	2. Other Examples of Interagency Task Force Success.....	12
D.	RESEARCH DESIGN	15
E.	CHAPTER OVERVIEW	16
II.	MARITIME RESPONSE IN THE SOUTH CAROLINA LOWCOUNTRY.....	17
A.	MARITIME DOCTRINE AND LEGISLATION.....	17
B.	SOUTH CAROLINA PORT SECURITY DUTIES IN THE LOWCOUNTRY.....	21
C.	FEDERAL AGENCIES IN LOWCOUNTRY MARITIME SECURITY	23
	1. Captain of the Port.....	24
	2. Maritime Missions: The United States Coast Guard and Customs and Border Protection	27
	3. The Federal Bureau of Investigation and Department of Homeland Security.....	29
D.	STATE AGENCIES IN LOWCOUNTRY MARITIME SECURITY	29
	1. The Seahawk Interagency Operation Center.....	30
	2. The South Carolina State Law Enforcement Division, South Carolina Department of Natural Resources, and South Carolina Port Authority	31
E.	LOCAL FIRST RESPONDERS IN LOWCOUNTRY MARITIME SECURITY	32
III.	THREATS TO THE PORTS OF THE LOWCOUNTRY	33
A.	MARITIME THREATS IN THE LOWCOUNTRY.....	33
	1. Active Shooters.....	34

2.	Maritime Criminal Activities.....	36
3.	Weapons of Mass Destruction.....	37
4.	Emergent Threats	38
B.	CURRENT INTERAGENCY EFFORTS AND HOW SMART WILL FILL THE GAPS	40
1.	Capabilities and Gaps: Active Shooters.....	40
2.	Capabilities and Gaps: Maritime Criminal Activities.....	40
3.	Capabilities and Gaps: Weapons of Mass Destruction	41
4.	Capabilities and Gaps: Emergent Threats	43
5.	Gaps and Security: Emergency Management and Tactical and Air Operations	45
IV.	SMART LEADERSHIP AND INTERAGENCY COLLABORATION	49
A.	SMART LEADERSHIP	49
B.	INTERAGENCY CAPABILITY GAPS AND SHARED LEADERSHIP CONCEPTS.....	54
1.	Boundary-Crossing	56
2.	The Process Model of Cooperation	57
3.	Communication	59
4.	Unified Policies and Guidelines	61
V.	CROSSING OVER WITH SMART	63
A.	RECOMMENDATIONS/IMPLEMENTATION CHALLENGES.....	65
B.	FUTURE RESEARCH.....	65
	APPENDIX. FOCUS GROUP QUESTIONS.....	69
	LIST OF REFERENCES	71
	INITIAL DISTRIBUTION LIST	77

LIST OF FIGURES

Figure 1.	A Bell 412 Helicopter with Radiation Equipment.....	6
Figure 2.	A High-Performance RHIB Boat.....	7
Figure 3.	The Charleston Port in South Carolina.	21
Figure 4.	Lowcountry Maritime Domain	23
Figure 5.	The Seahawk Interagency Operation Center	31
Figure 6.	Example of Vulnerable People on a Lowcountry Waterway.....	35
Figure 7.	A Bell 412 Helicopter with a Fast Rope/Troop Carrier Platform.....	47
Figure 8.	The Hierarchy of SMART	52
Figure 9.	The Present Maritime Domain in the Lowcountry	57
Figure 10.	The SMART Maritime Domain in the Lowcountry	58
Figure 11.	Collaboration, Coordination, and Cooperation in SMART through Communications	60

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LIST OF TABLES

Table 1. Elements of SMART.....4

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LIST OF ACRONYMS AND ABBREVIATIONS

AMSC	Area Maritime Security Committee
BORTAC	Border Patrol Tactical Unit
CBP	Customs and Border Protection
COTP	captain of the port
DOJ	Department of Justice
DHS	Department of Homeland Security
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation
GAO	Government Accountability Office
HAZMAT	hazardous material
HSPD	Homeland Security Presidential Directive
IAIP	Information Analysis and Infrastructure Protection
ICC	Intelligence Coordination Center
ICE	Immigration and Custom Enforcement
IOC	Interagency Operation Center
JIATF-S	Joint Interagency Task Force–South
JTF-4	Joint Task Force-4
LFR	Lowcountry first responder
MDA	maritime domain awareness
MIFC	Maritime Intelligence Fusion Center
MOU	memorandum of understanding
MSPCC	Maritime Security Policy Coordinating Committee
MSRT	Maritime Security Response Team
MSTA	Maritime Transportation Security Act
MTS	maritime transportation system
<i>NSMS</i>	<i>National Strategy for Maritime Security</i>
NSPD	National Security Presidential Directive
ONI	Office of Naval Intelligence
RHIB	rigid hull inflatable boat
RPM	radiation portal monitor

SAFE	Security and Accountability for Every (Port Act)
SAME	SWAT, aviation, marine patrol, and emergency management
SCDNR	South Carolina Department of Natural Resources
SCPA	South Carolina Port Authority
SLED	State Law Enforcement Division
SMART	Special Maritime Action Response Team
SWAT	special weapons and tactics
TSA	Transportation Security Administration
TWIC	Transportation Worker Identification Credential
UAS	unmanned aerial system
USCG	United States Coast Guard
WMD	weapons of mass destruction

EXECUTIVE SUMMARY

Maritime security capability gaps in the South Carolina Lowcountry can be closed more successfully if further interagency concepts are used. Security capability gaps within the maritime domain must be addressed as a multiagency problem in accordance with National Security Presidential Directive 41 and Homeland Security Presidential Directive 13.¹ This research sought to analyze the functioning between the agencies who work together to meet the federal, state, and local goals of maritime security. It proposes that a Specialized Maritime Action Response Team (SMART) be formed to integrate agencies and the Seahawk Interagency Operation Center (IOC) in the maritime domain.

Project Seahawk began as one such solution to the need for multiagency collaboration. Project Seahawk was developed as an interagency unit for maritime operations by the Department of Justice (DOJ) in 2003.² It was a unique unit created as a pilot program for interoperability in maritime security, operating as an intelligence hub for multiple agencies. Then, this unit, now known as Seahawk IOC, was adopted by the Department of Homeland Security (DHS) in 2009.³ When the agency switched from the DOJ to the DHS, the Seahawk IOC lost funding and, in turn, personnel. Seahawk IOC remains a viable entity as an intelligence and threat-analysis unit with the majority of assistance from the State Law Enforcement Division (SLED) and the United States Coast Guard, but due to the loss of funding, it is struggling to meet the needs of the maritime security community in the Lowcountry.

This thesis proposes revitalizing the Seahawk IOC with SMART, which would be capable of handling situations from radiation detection to multi-threat incidents to cybercrimes. SMART would give the captain of the port, U.S. Customs and Border

¹ Department of Homeland Security, *Maritime Transportation System Security Recommendations for the National Strategy for Maritime Security* (Washington, DC: Department of Homeland Security, 2005), 5, 6, https://www.dhs.gov/sites/default/files/publications/HSPD_MTSSPlan_0.pdf.

² Connie Braesch, "Project SeaHawk," *Coast Guard Compass* (blog), July 7, 2009), <http://coastguard.dodlive.mil/2009/07/project-seahawk/>.

³ Braesch.

Protection, SLED, Charleston County Sheriff's Office, and other first responders' leadership a multijurisdictional, multi-discipline unit to activate when a security or maritime event occurs. This highly trained and equipped team of first responders would be the "go-to" for unique maritime situations. It gives other first-responder leaders access to a maritime unit that can cover a variety of competencies with minimum notification or jurisdictional boundaries.

Regional collaboration is vital to the success of a unit that needs multidiscipline proficiencies. SMART would benefit from the shared perspectives of all federal, state, and local first responders to break down the proprietary boundaries. SMART would incorporate boundary-crossing and advance partnerships with all agencies and the community. A focus group with local first-responder teams held on May 22, 2019, provided insight into the problems and the SMART solution proposed by this thesis. A separate interview session was then conducted with various leaders in South Carolina to gain a perspective on the security gaps and economic impact that the maritime domain holds. The focus group assembled members from multiple agencies working to protect the ports together to allow them to evaluate their work and discuss what they need to improve. The following attended the focus group held in Charleston, South Carolina, at the Law Enforcement Center: the Federal Bureau of Investigation, the United States Coast Guard, Customs and Border Protection, the South Carolina State Law Enforcement Division, the South Carolina Port Authority Police Department, the Berkeley County Sheriff's Office, the Charleston County Sheriff's Office, the City of Charleston Fire Department, the North Charleston City Police Department, the North Charleston City Fire Department, and the City of Sullivan Island Police Department.

The Seahawk IOC, SMART, and other federal, state, and local entities would work together to develop a new level of professional knowledge and information.⁴ The research shows that boundary-crossing methods are a proven way to bring multiple entities together for one goal; creating a multiagency unit with shared leadership would require leaders to

⁴ Julie Schnobrich-Davis and William Terrill, "Interagency Collaboration: An Administrative and Operational Assessment of the Metro-LEC Approach," *Policing: An International Journal* 33, no. 3 (February 2010): 9, <https://doi.org/10.1108/13639511011066881>.

negotiate and cross the traditional professional boundaries to be successful.⁵ Stakeholders must set goals to make the process improvements while sharing ideas as a team and embracing collaboration within the team and its functions.⁶ Trust and cooperation between the stakeholders are just as important as the relationship between the leadership of SMART and Seahawk IOC to the success of the program to enhance port security in Charleston.

⁵ Paul Warmington et al., *Interagency Collaboration: A Review of the Literature* (Bath, UK: University of Bath, 2004), 22, <https://www.researchgate.net/publication/254986461>.

⁶ Warmington et al., 22.

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I. INTRODUCTION

This thesis examines the feasibility of an interagency approach to port security in South Carolina's Lowcountry. It begins with a background on the existing infrastructure and programming and how they affect the ability of the Lowcountry to face increasing and emerging threats. This thesis presents a way to connect the missions of multiple Lowcountry first responders and stakeholders through a Special Maritime Action Response Team (SMART) in keeping with current theory and recommendations on interagency operability.

This thesis proposes the creation of SMART to revive and enhance the Seahawk Interagency Operation Center (IOC), also known as Project Seahawk. Since 2003, Project Seahawk has been connecting multiple agencies and bringing state-of-the-art technology and a regional approach to the problem of port security critical infrastructure in Charleston, South Carolina.¹ However, the program lost funding when it moved from the Department of Justice to the Department of Homeland Security (DHS) in 2009 and, subsequently, never acquired a law enforcement/first-responder entity as a permanent component.² Now known as the Seahawk IOC, the program remains alive within the confines of the United States Coast Guard (USCG), albeit as a smaller project. Although Project Seahawk represents the first maritime interagency operation center for DHS, it remains limited to Charleston, South Carolina.³

SMART would be a means to unite the missions of highly efficient agencies and focus the discussion between them amid current and emerging threats in the maritime domain. It would be a multidisciplinary, multiagency unit that protects the maritime

¹ Kris Wise, "Charleston-Based Seahawk Task Force the First in U.S. to Focus on Cargo Terror Threat," Charleston Regional Development Alliance, June 1, 2005, https://www.crda.org/news/local_news/charleston-based-seahawk-task-force-the-first-in-u-s-to-focus-on-cargo-terror-threat/.

² John McDermott, "Project Seahawk Runs Out of Money," *Post and Courier*, September 30, 2009, https://www.postandcourier.com/news/project-seahawk-runs-out-of-money/article_6f5b4ce5-a53d-53d0-a191-949263f296ca.html.

³ "ATI's Scott Beeson Awarded Coast Guard Meritorious Service Medal," Cision PR Newswire, May 26, 2011, <https://www.prnewswire.com/news-releases/at-is-scott-beeson-awarded-coast-guard-meritorious-service-medal-122654078.html>.

domain of South Carolina using the intelligence gathered from the Seahawk IOC with a newly integrated cybersecurity unit. Ideally, the combination of SMART and the Seahawk IOC would be a model of port security and maritime awareness for all coastal states.

SMART is a unique regional solution needed in response to existing and emergent threats studied through the research for my thesis. The Specialized Maritime Action Response Team was an idea that I had after applying my research to the experience of more than half my life. My career has been dedicated to the defense of the nation from maritime threats in the continental United States and abroad as an explosive ordnance disposal technician and working on various tactical, canine, and dive search and rescue teams for the Air Force, the Navy, the South Carolina Department of Natural Resources, and most recently, the Charleston County Sheriff's Office. After the experience of working on various teams and agencies and taking a broader look at the context of that work through research, I determined that it was necessary to have an organized regional team responsible for operational leadership and cooperation. In this thesis, I define SMART and its components, provide its purpose, and discuss interoperability and leadership.

A. RESEARCH QUESTION

How can the creation of a Special Maritime Action Response Team complement and enhance the Seahawk Interagency Operation Center to improve response to maritime security threats and overcome the challenges of interagency collaboration?

B. SMART: AN OVERVIEW

The Maritime Transportation Security Act of 2002 acknowledged the maritime security gap and mandated that the USCG have units to battle the threat of terrorism in the maritime domain.⁴ Equipped with the Maritime Security Policy as well as National Security Presidential Directive (NSPD)-41 and Homeland Security Presidential Directive (HSPD)-13, DHS should consider the protection of U.S. critical infrastructure, maritime

⁴ Douglas K. Stark, "Reorganizing Coast Guard Deployable Specialized Forces Capability to Meet National Requirements" (master's thesis, USNC Command and Staff College, 2012), 1, <https://www.hsdl.org/?view&did=825406>.

domain, ports, and harbors with a regional team of federal, state, and local first responders.⁵ The daunting task of protecting 361 ports across the country falls upon the USCG under DHS.⁶ In 2004, the USCG created a Maritime Security Response Team (MSRT) to handle maritime incidents at a moment's notice.⁷ However, the USCG has produced only a few MSRT teams in the country, and none lie close enough to help the Lowcountry—not to mention they lack sufficient funding to make a viable resource.⁸

The Coast Guard's MSRT and the Border Patrol Tactical (BORTAC) Unit are models for creating SMART. The MSRT, as the USCG's counterterrorism unit, can handle an array of incidents.⁹ The BORTAC Unit has a maritime mission and is capable of airmobile operations.¹⁰ Having SMART, a team similar to the MSRT but more regional, would be a force multiplier of existing agencies working alongside the USCG. The SMART team would use the MSRT as a learning model. The protection of U.S. ports and the maritime domain using federal, state, and local first responders using the SMART concept would not replace the MSRT but complement the program to make ports safer.

The concept of SMART is based on an interagency method of cooperation. The Joint Interagency Task Force–South (JIATF-S) was selected as a model for SMART. This thesis examines the limitations of operating under such a single first-responder, multiagency team. The JIATF-S combined agencies into a single organization to combat the war on drugs. Similarly, SMART is being created to combat the threats and security gaps in the Lowcountry with multiple agencies. SMART's sharing of leadership and

⁵ “Fact Sheet: President Bush Signs *Maritime Security Policy National Security/Homeland Security Presidential Directive*,” Department of Homeland Security, 2005, 3, <https://www.hsdl.org/?view&did=451035>.

⁶ Department of Homeland Security, *Protecting America's Ports: Maritime Transportation Security Act of 2002* (Washington, DC: Department of Homeland Security, 2003), 5, https://www.aapa-ports.org/files/pdfs/mtsa_press_kit.pdf.

⁷ “Secretary Napolitano Observes Maritime Security Response Team Demonstration,” Office of the Press Secretary, July 13, 2009, <https://www.hsdl.org/?view&did=35243>.

⁸ Stark, “Reorganizing Coast Guard Deployable Specialized Forces,” 2.

⁹ Office of the Press Secretary, “Napolitano Observes Maritime Security Response Team Demonstration,” 1.

¹⁰ “Border Patrol Tactical Unit (BORTAC),” Department of Homeland Security, May 2009, <https://www.shsdl.org/?view&did=29219>.

interagency concept would not only eliminate redundant services, thus saving funding, but also, through the creation of a Board of Directors, allow everyone involved to have a voice in daily operations or long-term goals. SMART would eliminate the duplicate work resulting from the rotation of duty assignments among individual agencies, and it would allow individual agencies to concentrate on the needs of their jurisdictions. For instance, SMART personnel would routinely dive, sweep the piers and ships, and come to the ports, which would allow other dive teams to train on other first-responder dive missions, such as evidence recovery. The consolidation of agencies to fulfill SMART would save money because one organization would do the task of multiple agencies.

As part of the revitalization of Project Seahawk with SMART, a new cybersecurity unit would be added to the Seahawk IOC for cyber threats, providing intelligence not only for Lowcountry agencies but also for SMART. As recommended by a focus group participant, the cyber unit would comprise two cybersecurity investigators and two cyber analysts. Moreover, cyber tools would need improving to stay ahead of current threats.¹¹ The cyber unit must be risk-informed, not risk-averse, in allowing for rapid response.¹²

The acronym SAME represents the four law enforcement/first-responder elements of SMART: Special Weapons and Tactics (SWAT) and Bomb Squad; aviation and search and rescue; marine patrol and divers; and emergency management, hazardous material (HAZMAT), and explosive detection canines. Table 1 clarifies the specific elements.

Table 1. Elements of SMART

S	SWAT/Bomb
A	Aviation/Search and Rescue Swimmers
M	Marine Patrol/Divers
E	Emergency Management/HAZMAT/Explosive Detection Canines

¹¹ Donald J. Trump, *National Security Strategy of the United States of America* (Washington, DC: White House, December 2017), 32, <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905-2.pdf>.

¹² Trump, 32.

1. SWAT/Bomb Team

The SWAT Team and Bomb Squad would be trained using the blueprint of the Coast Guard's MSRT.¹³ This unit would provide protection for the maritime domain of South Carolina using the intelligence gathered from the Seahawk IOC. The SMART tactical team would comprise approximately 26 operators, in keeping with the National Tactical Operation Association's recommendation.¹⁴ The tactical team must be equipped to handle maritime missions in the Lowcountry and have the capability to protect or save lives from air or water platforms, depending on the mission. These operators must be well versed in the maritime tactical domain as well as tactical air operations, not to mention able to perform under high stress, which is crucial for the success of a tactical team.

2. Aviation/Search and Rescue Team

The aviation component would have a vital mission in SMART. It would also be used to support South Carolina in times of natural emergencies because of the capabilities of SMART's members. The team would require two Bell 412 helicopters to fulfill the maritime mission successfully—as was recommended by one of the interviewees for maintenance or tactical needs of the State Law Enforcement Division (SLED) or other first responders. Figure 1 shows a Bell 412 helicopter with radiation equipment attached, as proposed for SMART. The helicopter would require an appropriate number of pilots and crew chiefs who are either search-and-rescue swimmers or scuba divers.

¹³ Office of the Press Secretary, "Napolitano Observes Maritime Security Response Team Demonstration," 1.

¹⁴ National Tactical Officers Association, *Tactical Response and Operations Standard for Law Enforcement Agencies* (Colorado Springs: National Tactical Officers Association, April 2018), 11, <http://ntoa.org/pdf/swatstandards.pdf>.



Figure 1. A Bell 412 Helicopter with Radiation Equipment¹⁵

3. Marine Patrol/Dive Team

The marine unit of the SMART concept is unique because it must transport members of not only the SWAT/Bomb element but also the rest of the SAME elements, including diver support. The marine element would also gather intelligence for the Seahawk IOC as well as U.S. Customs and Border Protection (CBP) and the USCG.¹⁶ The two boats designed for this element would also have radiation detection capabilities, just as the aviation element would have. The high-performance rigid hull inflatable boat (RHIB) proposed for SMART is illustrated in Figure 2. The marine patrol would have an appropriate number of coxswains or boat operators and scuba divers assigned.

¹⁵ Source: “A Third Bell 412 Helicopter Delivered to NYPD for Counterterrorism Missions,” Homeland Security News Wire, July 5, 2012, <http://www.homelandsecuritynewswire.com/dr20120705-a-third-bell-412-helicopter-delivered-to-nypd-for-counterterrorism-missions>.

¹⁶ U.S. Customs and Border Protection, *Protecting America: U.S. Customs and Border Protection 2005–2010 Strategic Plan* (Washington, DC: U.S. Customs and Border Protection, May 2005), 23, <https://www.hsdl.org/?view&did=470246>.



Figure 2. A High-Performance RHIB Boat¹⁷

4. Emergency Management/Hazmat/Explosive Detection K9 Team

This unit would comprise an appropriate number of emergency managers, hazardous material technicians, and explosive canine handlers with dual-purpose canines to handle the delicate and dangerous aspects of hazardous materials or weapons of mass destruction. The command and control of emergency management are fundamental to navigating the scene. The hazardous material technicians would handle chemical, biological, and radiological threats with the proper equipment while the canines would serve a dual purpose: detecting explosives and apprehending suspects. This capability does not exist in the current Seahawk IOC and would allow this vital group of professionals to handle a maritime threat quickly and efficiently in the HAZMAT world.

C. LITERATURE REVIEW

This literature review introduces the concept of interagency collaboration through a discussion of current theories on teamwork and communication. These theories are used as a framework for the development of SMART.

¹⁷ Source: "Asis Boats USA Delivers a New High-Performance Patrol Boat to MDTA," Asis Boats, April 8, 2018, <https://www.asisboats.com/asis-boats-usa-delivers-a-new-high-performance-boat-to-mdta/>.

1. Interagency Collaboration

Interagency collaboration is a structured method for solving significant problems with multiple stakeholders working together as a single force. Weiss states there is a “process model of cooperation” when creating interagency collaboration between agencies and stakeholders.¹⁸ The components of the model, according to Weiss, are as follows: the problem must affect all the agencies, adequate resources must be available to handle the problem, and agency commitment has to be present to engage the problem.¹⁹ However, all agencies are more likely to collaborate, coordinate, and finally cooperate, as Weiss suggests, when there is external pressure to do so.

Conversely, Busuioc argues that when entities accept the conditions of cooperation, they may not follow through, even after signing formal agreements.²⁰ Busuioc’s article suggests that problems like tension and inconsistencies are compounded when involving multiple actors and different jurisdictions in such interagency collaboration. These factors make a turf war among stakeholders more likely, even if a structured framework is in place.²¹ According to Busuioc, the reputation of the agencies is at stake, which triggers turf wars and a reluctance to cooperate.²² However, Europol, for example, has minimized such competition by portraying successful missions as a chance for agencies to boost their image and reputation.²³

Adequate interagency collaboration depends on attaining several objectives. The Government Accountability Office (GAO) states that specific objectives involving such things as outcomes, accountability, and leadership are complex and pose challenges for

¹⁸ Russell Frazier, “A Cannon for Cooperation: A Review of the Interagency Cooperation Literature,” *Journal of Public Administration and Governance* 4, no. 1 (February 2014): 3, <https://doi.org/10.5296/jpag.v4i1.4870>.

¹⁹ Frazier, 3.

²⁰ E. Madalina Busuioc, “Friend or Foe? Inter-agency Cooperation, Organizational Reputation, and Turf,” *Public Administration* 94, no. 1 (March 2016): 40, <http://dx.doi.org/10.1111/padm.12160>.

²¹ Busuioc, 41.

²² Busuioc, 41.

²³ Busuioc, 49.

interagency collaboration.²⁴ Mihm contends that agencies can use one or more of these objectives as the foundation of interagency collaboration, with positive or negative results.²⁵ Egli elaborates that the GAO's objectives would make interagency capabilities attainable.²⁶ Thus, objectives are the ingredients for the interagency framework that can make or break collaboration.²⁷

Agencies may become sensitive and protective of themselves during the interagency process. According to Mihm, having clear and precise goals is imperative during the process of obtaining interagency collaboration with stated outcomes and accountability.²⁸ Likewise, Mihm finds it essential to have a way of monitoring, evaluating, and reporting the results for this venture.²⁹ Busuioc contends that cooperation can be risky because agencies become defensive and reluctant to communicate.³⁰ Stakeholders of the organizations—not the objectives of collaboration—may lead to failure.³¹ However, as Busuioc explains, an agency involved in the cooperation would not risk its reputation “without jeopardizing the unique role of the organization concerned.”³² Within the community, if an agency withdraws its participation in the interagency collaboration, it might harm its reputation.³³

A strategy for leadership must be defined for interagency collaboration to function correctly. The GAO asserts that appointing one leader is a best practice because it

²⁴ J. Christopher Mihm, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, GAO-12-1022 (Washington, DC: Government Accountability Office, 2012), 1, <https://www.gao.gov/products/GAO-12-1022>.

²⁵ Mihm, 9.

²⁶ Mihm, 9.

²⁷ Dane S. Egli, “Understanding the Role of Interagency Coordination in National-Level Maritime Security” (PhD diss., University of Colorado at Denver, 2011), 28, ProQuest.

²⁸ Mihm, *Managing for Results*, 9.

²⁹ Mihm, 12.

³⁰ Busuioc, “Friend or Foe?,” 43.

³¹ Busuioc, 43.

³² Busuioc, 43.

³³ Busuioc, 43.

centralizes accountability and quickens decision making.³⁴ The selected leader of an interagency unit could be perceived as positive or negative depending on the collaborative arrangements among the agencies.³⁵ However, the GAO warns that having one leader from one agency is not always the best option if dealing with multiple agencies. The report advises that sharing leadership may better achieve buy-in from all agencies.³⁶ The GAO notes how vital a decisive leadership role is for the effectiveness of the collaborative interagency concept, explaining that without such leadership, collaboration may weaken, become less useful, or dissolve entirely.³⁷

Scholars agree about resources being an integral part of interagency collaboration.³⁸ Weiss argues that if additional resources can be secured, interagency collaboration will flow.³⁹ Likewise, the GAO states that funding is vital for the interagency collaboration to work, but the funds have to be identified and be sufficient for the program.⁴⁰ Weiss further posits that participating stakeholders will cooperate if a significant monetary benefit is likely.⁴¹ Conversely, some agencies will participate in the interagency collaboration even if there is no financial gain.⁴² Yet Frazier states that funds are needed not only to support the collaboration but also to spark interest for agencies to participate in the program.⁴³ Funding may or may not be the key to the success of interagency collaboration.

Scholars concur that interagency collaboration must have human resources with collaborative skills such as communication and teamwork.⁴⁴ Frazier states that human

³⁴ Mihm, *Managing for Results*, 16.

³⁵ Mihm, 25.

³⁶ Mihm, 16.

³⁷ Mihm, 21.

³⁸ Janet A. Weiss, "Pathways to Cooperation among Public Agencies," *Journal of Policy Analysis and Management* 7, no. 1 (1987): 111.

³⁹ Weiss, 95.

⁴⁰ Mihm, *Managing for Results*, 20.

⁴¹ Weiss, "Pathways to Cooperation," 99.

⁴² Weiss, 99.

⁴³ Frazier, "A Cannon for Cooperation," 12.

⁴⁴ Mihm, *Managing for Results*, 8.

resources have to be highly trained and educated to maintain an effective interagency collaboration.⁴⁵ Schnobrich-Davis and Terrill comment that stringent entrance requirements must be in place to select the proper personnel.⁴⁶ Weiss suggests that people who are attracted to some respondents will have a connection that encourages cooperation. Nevertheless, Weiss claims that some agencies might instead go at the project alone even if other agencies value the collaboration.⁴⁷ Agencies that pursue interagency collaboration have communicated a benefit among the members involved, as indicated by Weiss.⁴⁸ The ability of the agencies to communicate effectively is vital to the success of the collaboration.

Warmington et al. suggest innovative concepts must be sought in answering some human challenges like internal tension or disagreement.⁴⁹ The authors introduce the concept of boundary-crossing, whereby individuals with different capabilities create a new professional practice.⁵⁰ For boundary-crossing to work, the individuals must learn to be multidisciplinary and seek to cross boundaries they have not sought before. While Weiss asserts that multidisciplinary learning is untested, Warmington et al. suggest that the boundary-crossing concept is a possible solution for developing professional relationships for interagency collaboration.⁵¹

The framework provided by the maritime strategy in the presidential directives lays out a partial solution to unify the stakeholders involved in interagency collaboration. New and innovative methods must be explored to overcome some of the shortfalls of interagency collaboration: multiple factors, components, and stakeholders. This thesis explores creating

⁴⁵ Frazier, "A Cannon for Cooperation," 15.

⁴⁶ Julie Schnobrich-Davis and William Terrill, "Interagency Collaboration: An Administrative and Operational Assessment of the Metro-LEC Approach," *Policing: An International Journal of Police Strategies & Management* 33, no. 3 (February 2010): 517, <https://doi.org/10.1108/13639511011066881>.

⁴⁷ Weiss, "Pathways to Cooperation," 103.

⁴⁸ Weiss, 98.

⁴⁹ Paul Warmington et al., *Interagency Collaboration: A Review of the Literature* (Bath, UK: University of Bath, 2004), 47, <https://www.researchgate.net/publication/254986461>.

⁵⁰ Warmington et al., 8.

⁵¹ Weiss, "Pathways to Cooperation," 9; Warmington et al., *Interagency Collaboration*, 47.

a SMART program, integrated with the IOC and without turf wars or adversarial attitudes, and seeks to solve the challenges of creating a maritime strategy for Charleston County, South Carolina.

2. Other Examples of Interagency Task Force Success

A review of other examples of local task forces and interagency collaboration highlights how interagency operability and whole-community systematic approaches to homeland security reduce redundancies, increase efficiency, and support the goal of enriching interagency cooperation and communication. While each of these examples was carried out in areas geographically, culturally, or economically different from the Lowcountry and one another, they provide examples of organizations approaching problems in ways better than policy writing alone. The selected examples describe how SMART should be designed for Charleston, South Carolina, and what benefits this multidisciplinary, multiagency approach would reap. These examples show the cohesiveness of their respective disciplines in creating a program like SMART.

Arizona's Department of Public Safety functions as an umbrella agency housing the state's law enforcement and 28 other support functions.⁵² By grouping all of the different agencies that support the mission of public safety, Arizona uses a whole-team approach to support the needs of each smaller component and share resources. Arizona's Department of Public Safety proposed a similar concept to SMART. The aviation unit had successfully argued—and the Department of Public Safety agreed—that the entire state needed helicopter support, particularly in its search-and-rescue and law enforcement missions.⁵³ Arizona's helicopter can be used for multiple missions just as SMART's helicopters would expand the capabilities of an aerial platform for the Lowcountry.

⁵² Leigh Neil and Ned Dawson, "Safer Is Better - AZ DPS," *HeliOps*, August 17, 2019, <https://www.heliopsmag.com/safer-is-better-az-dps>.

⁵³ Neil and Dawson.

The Port of South Louisiana is an example of a marine patrol element that obtained a 57-foot Dauntless-class vessel for its port security.⁵⁴ SMART’s marine patrol element would have to design a boat as the Port of South Louisiana did for its mission (see Figure 3). Having a command-and-control vessel for situational awareness would be just as vital to SMART as it has been for the Port of South Louisiana during critical incidents.⁵⁵ Not only can the vessel respond quickly; it also serves as a transportable hub for interoperable communication capabilities. South Louisiana has attributed its success to an organizational commitment to providing resources and training and encouraging different groups to collaborate in protecting the ports.⁵⁶

Another parallel component for SMART comes from a Naval Postgraduate School project, which—beyond suggesting more legislation and mandates—established a systematic approach to disaster response. In his DHS region, Mark Stigler built a team of 50 members from varying disciplines and agencies that come together to provide resources for areas that generally lack the skills, tools, and resources to respond to homeland security incidents.⁵⁷ SMART would be modeled after the Southeast Wisconsin Incident Management System to achieve interagency cooperation. Stigler states in an article that “the federal government cannot do it alone, and no single local agency or municipality can do it alone.”⁵⁸ This framework shows why interagency and collaborations are so vital in a regional response. The Southeast Wisconsin Incident Management System, led by Mark Stigler, was successful because it developed a capable multidisciplinary, multiagency team, as recommended in the *National Strategy for Maritime Security (NSMS)*.⁵⁹ Stigler ascribes this venture’s success to the relationships with all stakeholders using the process

⁵⁴ “Good Story: The Port of South Louisiana’s Responder Security Vessel,” Department of Homeland Security, 2008, 1, <https://www.hsdl.org/?view&did=776450>.

⁵⁵ Department of Homeland Security, 2.

⁵⁶ Department of Homeland Security, 1.

⁵⁷ “Stigler Research Conclusion Implemented in Regional Response Team,” Center for Homeland Defense and Security, June 22, 2012, <https://www.chds.us/c/item/779>.

⁵⁸ Center for Homeland Defense and Security.

⁵⁹ Center for Homeland Defense and Security.

model of cooperation.⁶⁰ It has been proven over and over again that a cooperative multiagency effort is always unpredictable.⁶¹ Trust among all stakeholders involved is vital.⁶²

Two federal programs—one successful, the other a failure—provide lessons learned for SMART. The JIATF-S is a cross-functional, interagency team that has succeeded in employing interagency and organizational concepts.⁶³ Even though the JIATF-S was created to combat drug trafficking, a similar execution could allow SMART to fight terrorism in the maritime domain.⁶⁴ JIATF-S coordinated the forces of local and federal government but also international stakeholders.⁶⁵ The JIATF-S project revealed that very little literature has been written on interagency teams, and for an interagency team to be successful, it must be cross-functional.⁶⁶ In contrast, Joint Task Force 4 (JTF-4) was an intel, detection, and coordination/monitoring unit at its inception.⁶⁷ The unit had a state-of-the-art command center that resembled Project Seahawk's. The Department of Defense was the primary agency for JTF-4 and was able to integrate with law enforcement agencies to gain a cross-functional team.⁶⁸ JTF-4 could have flourished had the military shared intelligence with law enforcement agencies, but the military advised that the information was classified and not to be distributed.⁶⁹ Another problem with the interagency unit was the lack of common goals in sharing information between all involved.⁷⁰ The stakeholders

⁶⁰ Center for Homeland Defense and Security.

⁶¹ Renee Graphia Joyal, "How Far Have We Come? Information Sharing, Interagency Collaboration, and Trust within the Law Enforcement Community," *Criminal Justice Studies* 25, no. 4 (December 2012): 367, <https://doi.org/10.1080/1478601X.2012.728789>.

⁶² Joyal, 367.

⁶³ Evan Munsing and Christopher J. Lamb, *Joint Interagency Task Force–South: The Best Known, Least Understood Interagency Success*, Strategic Perspectives 5 (Washington, DC: National Defense University Press, 2011), 5, <https://www.hsdl.org/?view&did=489189>.

⁶⁴ Munsing and Lamb, 3.

⁶⁵ Munsing and Lamb, 4.

⁶⁶ Munsing and Lamb, 4.

⁶⁷ Munsing and Lamb, 12.

⁶⁸ Munsing and Lamb, 12.

⁶⁹ Munsing and Lamb, 13.

⁷⁰ Munsing and Lamb, 15.

would have had to put jealousy, resentment, and frustration aside for the collaboration to be successful.⁷¹

D. RESEARCH DESIGN

This project started with an interest in how an interagency task force could help with emerging or rising threats in Charleston and the Lowcountry. Preliminary research focused on maritime policy, laws, and strategies in the interest of protecting the port. An initial understanding was informed by the framework of NSPD-41 and HSPD-13 via the *NSMS* to show the impact of a multiagency unit concept in protecting the port of Charleston, South Carolina. The *NSMS* outlined the interagency relationship needed, and annual reports of the port's activities shed light on the economic value of the port's security.

Next, the research investigated the importance of the port, taking a regionalized approach in examining the port of Charleston and its security environment. After collecting data about the status of port security and operations, this research project identified critical threats based on current trends and problems facing the agencies in complying with presidential directives to secure the ports.

A focus group with local first-responder teams held on May 22, 2019, provided insight into the problems and the SMART solution proposed by this thesis. A separate interview session was then convened with various leaders in South Carolina to gain a perspective on the security gaps and economic impact that the maritime domain holds. The focus group assembled members from multiple agencies working to protect the ports to evaluate their work and discuss what they need to improve. The following organizations attended the focus group in Charleston, South Carolina, at the Law Enforcement Center: the Federal Bureau of Investigation (FBI), the USCG, CBP, the South Carolina SLED, the South Carolina Port Authority Police Department, the Berkeley County Sheriff's Office, the Charleston County Sheriff's Office, the City of Charleston Fire Department, the North Charleston City Police Department, the North Charleston City Fire Department, and the City of Sullivan Island Police Department. Dr. Shannon Brown assisted me in facilitating

⁷¹ Joyal, "How Far Have We Come?," 367.

this event with the above participants. A total of 10 questions were discussed with the focus group (see the Appendix).

Both the focus group and individual interviews produced valuable feedback for this thesis. The focus group addressed similar concerns to those reflected in the research with pertinent real-time information to validate security capability gaps. The focus group provided information on security capability gaps from federal, state, and local first responders in the field. The real-time data gathered from the various agencies' professionals highlighted what was important to these individuals vis-à-vis the research being done. Follow-up interviews from the focus groups highlighted the importance of the captain of the port's role in meeting protocol.

The first-responder focus group and the Lowcountry's leadership interviewees concluded that a security incident in the Charleston maritime arena is a local event with national importance because of the port. Exploring the field perspectives validated the need for a task force to help the agencies cooperate.

E. CHAPTER OVERVIEW

This thesis focuses on the creation of SMART and the integration of federal, state, and local first responders with the Seahawk IOC in the Lowcountry maritime domain. Chapter II provides a summary of maritime doctrines and legislation and an overview of the Lowcountry's first responders. Chapter III covers the maritime threats to the Lowcountry and the use of intelligence with the agencies involved. Chapter IV explores leadership concepts and interagency collaboration with Lowcountry stakeholders to show how SMART could fill interagency gaps. Chapter V presents a recap on SMART and the Seahawk IOC and suggests future research topics.

II. MARITIME RESPONSE IN THE SOUTH CAROLINA LOWCOUNTRY

It takes all first responders to overcome the challenges of maritime security and interagency organization in the South Carolina Lowcountry. Understanding how the existing maritime security entities could work with SMART at the interagency level requires knowledge of the guiding doctrine that directs the agencies; the various players at the federal, state, and local levels; the dynamics of their working together; and the challenges facing them. Accordingly, this chapter overviews agency roles as outlined by relevant maritime doctrine, presented chronologically from 2002 to present, in the protection of Lowcountry ports. The discussion of maritime doctrine covers Project Seahawk as an existing measure to reinforce port security, its strengths, and its weaknesses. Next, this chapter defines the Lowcountry as a region and then identifies and discusses the agencies and critical contributors to maritime security. The interagency cooperation among these stakeholders is essential to the roadmap of collaboration among first responders.⁷²

A. MARITIME DOCTRINE AND LEGISLATION

This section explains the primary doctrine and legislation applicable to maritime security under which SMART could operate to enhance the goals of homeland security and interagency operability. It introduces and defines the key policies relating to the implementation of SMART that have developed since 9/11 regarding port security. These policies and laws include the Maritime Transportation Security Act of 2002, Project Seahawk (2003), NSPD-41/HSPD-13 (2004), and the Security and Accountability for Every (SAFE) Port Act and 46 U.S.C. § 70107A (2006).

The Maritime Transportation Security Act (MSTA) of 2002 delegates the security of the ports to the USCG and Transportation Security Administration (TSA).⁷³ The MSTA is a pillar of legislation that was created to protect the ports and waterways of this country.⁷⁴

⁷² Mihm, *Managing for Results*, 19.

⁷³ Department of Homeland Security, *Protecting America's Ports*, 5.

⁷⁴ Department of Homeland Security, 5.

Its initial goal was to detect and prevent terrorism in the maritime domain by checking vessels for vulnerability, establishing restricted areas, and increasing surveillance. Prior to the MSTA, neither the USCG nor the TSA had a unit responsible for taking care of high-risk activities or counterterrorism. This maritime security gap was acknowledged by the MSTA.

However, even since the MSTA, the USCG has produced only two MSRTs in the country, one for the East Coast and one for the West Coast to address the security gap, and they do not work as interagency units. The closest MSRT to Charleston is four hours away in Chesapeake, Virginia. SMART would be a multidisciplinary, multiagency unit working to protect the ports with DHS as one of the primary stakeholders. Having a localized interagency team that falls under the captain of the port and, ultimately, the USCG can help support the USCG's mission of port security.⁷⁵

Following the MSTA, Project Seahawk was created as a pioneer interagency unit in 2003 to answer challenges in maritime security. The DOJ initiated the program, and other agencies contributed personnel to it.⁷⁶ Project Seahawk was at the intelligence leading edge of maritime operations in Charleston, South Carolina, and the Lowcountry.⁷⁷ In 2009, DHS became responsible for what is now known as the Seahawk IOC.⁷⁸ Subsequently, the Seahawk IOC lost funding support from the federal government, which was necessary to fulfill its intended mission. The Seahawk IOC is a viable entity as an intelligence and threat analysis unit with the majority of its assistance coming from SLED and the USCG—but not close to the amount needed. Creating SMART could restore support to Project Seahawk by providing it field-level support for intelligence collection and analysis.

⁷⁵ Larry Brooks, "Coast Guard Captain of the Port: A Brief History," *Coast Guard Journal of Safety and Security at Sea: Proceedings of the Marine Safety & Security Council* 75, no. 2 (Fall 2018): 14, <https://www.hsdl.org/?view&did=813532>.

⁷⁶ Connie Braesch, "Project SeaHawk," *Coast Guard Compass* (blog), July 7, 2009, <http://coastguard.dodlive.mil/2009/07/project-seahawk/>.

⁷⁷ Wise, "Charleston-Based Seahawk Task Force."

⁷⁸ Braesch, "Project SeaHawk."

In 2004, President George W. Bush wanted a comprehensive maritime plan that would coordinate all aspects of government against maritime threats and follow through with his initial MSTA.⁷⁹ President Bush's NSPD-41 and HSPD-13 break down maritime security policy into several components.⁸⁰ They required that the Maritime Security Policy Coordinating Committee (MSPCC) be formed to review "existing inter-agency practices, coordination, and execution of U.S. policies and strategies relating to maritime security, and [recommend] improvements as needed."⁸¹ The MSPCC developed the *NSMS*, which mandates an interagency relationship of quality, transparency, sharing, and protection of critical security information with federal, state, and local government agencies.⁸² SMART could work under this presidential directive to serve as a force multiplier to ensure that agencies are meeting the interagency operability standards in the best interest of national security.

The SAFE Port Act of 2006 was another policy set out to govern credentialing for U.S. ports.⁸³ This act generated the Transportation Worker Identification Credential (TWIC) to control access to U.S. ports.⁸⁴ The program was implemented in 2007 and completed in 2009, with transportation card readers used within six months.⁸⁵ The TSA oversaw eligibility and the issuance of TWIC cards, which affected all individuals working at ports, primarily contractors and employees.⁸⁶ An individual with a TWIC card has access to secure areas at a maritime facility or vessel after being vetted by the TSA.⁸⁷ SMART

⁷⁹ Department of Homeland Security, "Fact Sheet," 1.

⁸⁰ Department of Homeland Security, 1.

⁸¹ Department of Homeland Security, 1.

⁸² Department of Homeland Security, *Maritime Transportation System Security Recommendations for the National Strategy for Maritime Security* (Washington, DC: Department of Homeland Security, 2005), 5, https://www.dhs.gov/sites/default/files/publications/HSPD_MTSSPlan_0.pdf.

⁸³ Kathy L. Close, "TWIC as an Access Control at U.S. Seaports," *Journal of Transportation Law, Logistics, and Policy* 76, no. 1 (2009): 13.

⁸⁴ Close, 13.

⁸⁵ Close, 14.

⁸⁶ Close, 16.

⁸⁷ "TWIC," Transportation Security Administration, accessed December 29, 2018, <https://www.tsa.gov/for-industry/twic>.

would provide more manpower in checking TWIC cards, thus supporting the mission of the SAFE Port Act of 2006.

Federal laws that govern the protection of the ports were implemented following the SAFE Ports Act of 2006. According to 46 U.S.C. § 70107A, the USCG must establish IOCs to provide port security at all high-value ports.⁸⁸ Maritime Transportation System Security provides a series of security nets to manage security risk effectively.⁸⁹ The *NSMS* recommends that DHS use the IOC to share critical agency information with federal, state, and local shareholders.⁹⁰ Following this mandate, Project Seahawk was taken over by DHS, but it still lacks the manpower needed to fulfill its mission, as it supplies only intelligence analysis and lacks fieldwork and law enforcement support. The IOC can help create a Maritime Domain Security Risk Information System to provide a comprehensive and detailed view of risks at the national and local levels based on the best available interagency information, according to the *U.S. Code*.⁹¹ In an analysis of the relationship between national strategy and maritime domain awareness, Campion asserts that three aspects of *NSMS* apply to the IOC and SMART concepts: threats to maritime security (which are discussed further in Chapter III), strategic objectives, and strategic actions.⁹² The Board of Directors for the Lowcountry first responders (LFRs) would be responsible for the strategic objectives while developing policies and procedures for SMART in day-to-day operations. The shared leadership of the captain of the port (COTP) and the chief of SLED will be responsible for the strategic actions in using SMART for critical incidents.

Current strategic policy set out by DHS in the *NSMS* builds on the foundation set by maritime doctrine and legislation written from 2002 to present, starting with the

⁸⁸ Laura Jean Thompson, “U.S. Maritime Security: Sustainability Challenges” (master’s thesis, Naval Postgraduate School, 2011), 33, <https://www.hsdl.org/?view&did=691580>.

⁸⁹ Department of Homeland Security, *Maritime Transportation System Security*, 3.

⁹⁰ Department of Homeland Security, *National Strategy for Maritime Security* (Washington, DC: Department of Homeland Security, 2019), 9, <https://www.dhs.gov/national-plan-achieve-maritime-domain-awareness>.

⁹¹ Department of Homeland Security, *Maritime Transportation System Security*, 5.

⁹² Francis J. Campion, “Strategic Maritime Domain Awareness Supporting the National Strategy for Maritime Security” (master’s thesis, U.S. Army War College, 2008), 5, <https://www.hsdl.org/?view&did=38208>.

MSTA.⁹³ The directives and Title 46 of the *U.S. Code* that followed set the way for the federal agencies involved to better share information and be interoperable.⁹⁴ This domestic outreach is a critical program of interest for federal, state, and local responders because, under these directives, they can implement “engagement plans” to ensure efficiency and accountability in maritime security policy.⁹⁵

B. SOUTH CAROLINA PORT SECURITY DUTIES IN THE LOWCOUNTRY

This section covers federal, state, and local agencies involved in Lowcountry maritime security. The present hierarchy of the maritime domain in the Lowcountry is shown in Figure 3.

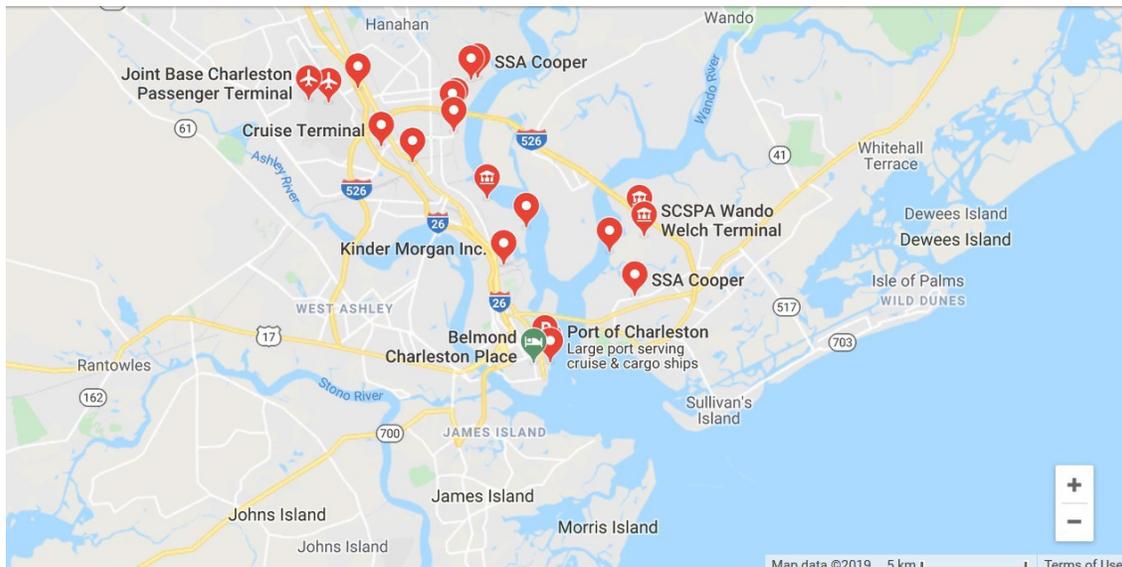


Figure 3. The Charleston Port in South Carolina.⁹⁶

⁹³ Trump, *National Security Strategy*, 2.

⁹⁴ Department of Homeland Security, “Fact Sheet,” 2.

⁹⁵ Department of Homeland Security, 2.

⁹⁶ Source: “Terminals in Charleston,” Google Maps, accessed October 10, 2019, <https://www.google.com/maps/search/terminals+in+charleston/@32.8451959,-80.0539763,33703m/data=!3m1!1e3>.

The Lowcountry is the area of South Carolina that covers the marshes and sea islands along the coast from the northernmost point of Myrtle Beach to the southernmost point of Hilton Head.⁹⁷ Berkeley and Charleston counties represent the Lowcountry for this thesis because of the location of the port and its terminals. The Lowcountry's terminals are significant because an average of 36 cruise ships embark and debark passengers there, and they handle more than \$60 billion of cargo annually, which makes this an economic hub on the East Coast.⁹⁸ Vessels from these terminals ship cargo to 150 nations around the globe.⁹⁹ An annual average of 1.2 million containers pass through the terminals as cargo in the Lowcountry.¹⁰⁰ Yet the port in the Lowcountry, as illustrated in Figure 4, is continually growing.

⁹⁷ Stephanie Hunt, "The Lowdown on South Carolina Low Country," Great American Country, accessed October 5, 2019, <https://www.greatamericancountry.com/places/local-life/the-lowdown-on-south-carolina-low-country>.

⁹⁸ "The Role of the South Carolina State Port Authority Police Dept.," Port of Charleston, August 2009, 2, 33, <http://www.ncsl.org/documents/nlssa/portpolice.pdf>.

⁹⁹ Port of Charleston, 2.

¹⁰⁰ Port of Charleston, 3.

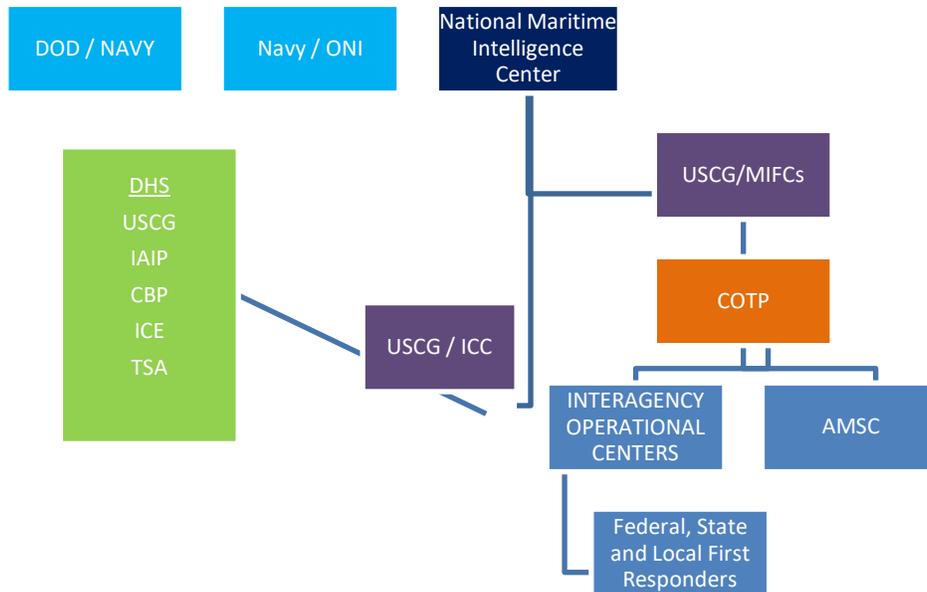


Figure 4. Lowcountry Maritime Domain¹⁰¹

C. FEDERAL AGENCIES IN LOWCOUNTRY MARITIME SECURITY

This section explains the major federal agencies involved in Lowcountry maritime security. Specifically, it outlines the linkage between the COTP, the USCG, the CBP, the FBI, and DHS with SMART and further interagency collaboration. The federal entities have overlapping duties and purposes in protecting the maritime domain, but budget reductions have led to unfilled positions for some roles.¹⁰² The focus group and interviews pointed to the lack of communication and direction as stagnating interoperability among stakeholders. This resistance to interoperability echoes the words of Weiss, who says that cooperation is easier to advocate than to practice. However, it can be overcome to mutually benefit all parties if they agree to bear some upfront costs.¹⁰³ All stakeholders want to hold on to their missions to justify their existence and remain viable.¹⁰⁴ According to Mihm,

¹⁰¹ Adapted from Margaret Wrightson, *Maritime Security: New Structures Have Improved Information Sharing, but Security Clearance Processing Requires Further Attention*, GAO-05-394 (Washington, DC: Government Accountability Office, 2005), 44, <https://www.gao.gov/new.items/d05394.pdf>.

¹⁰² Thompson, “U.S. Maritime Security,” 39.

¹⁰³ Weiss, “Pathways to Cooperation,” 94–95.

¹⁰⁴ Thompson, “U.S. Maritime Security,” 40.

different agencies participating in any collaborative mechanism bring diverse organizational cultures to it.¹⁰⁵ Accordingly, it is crucial to address these differences to enable a cohesive working relationship and create the mutual trust required to enhance and sustain the collaborative effort.¹⁰⁶ SMART would help build cohesive work relationships and mutual trust by putting all stakeholders under one house working together for one goal.

1. Captain of the Port

This section overviews how the COTP position has evolved over time, how it might support the proposed SMART mission, and what part it might play in interagency operability. The COTP holds a unique authority in the maritime domain. As a senior USCG officer, the COTP holds an incredible position of power over the maritime domain, including the shipping business, not only regionally but nationally, while covering the waterfront, too.¹⁰⁷ The COTP can order a vessel that is not complying with all regulations, laws, or treaties to anchor, and prohibit the vessel from operating within the port.¹⁰⁸ The primary leadership roles or day-to-day operations are handled by the COTP. However, the COTP would also consistently communicate with the proposed SMART's Board of Directors and other federal, state, and local leaders. Such shared leadership would promote interagency operability and ensure mission accountability. Inconsistent leadership, on the other hand, would weaken the collaboration set forth with SMART.¹⁰⁹

The COTP's position was first established in response to an attack by a German saboteur in 1916.¹¹⁰ Thereafter, on June 15, 1917, Congress made the COTP responsible for controlling the port, moving ships through it, and setting up anchorage and restricted

¹⁰⁵ Mihm, *Managing for Results*, 13–14.

¹⁰⁶ Mihm, 13–14.

¹⁰⁷ Andrew E. Tucci, "The Captain of the Port," *Coast Guard Journal of Safety & Security at Sea: Proceedings of the Marine Safety & Security Council* 75, no. 2 (Fall 2018): 6, <https://www.hsdl.org/?view&did=813532>.

¹⁰⁸ Tucci, 7.

¹⁰⁹ Mihm, *Managing for Results*, 17.

¹¹⁰ Brooks, "Coast Guard Captain of the Port," 14.

areas, including the supervision and storage of explosives.¹¹¹ This authority protects not only the people and vessels but also the environment and port infrastructure.¹¹² Then, the Espionage Act of 1917 shifted the responsibility of the ships from the U.S. Army Corps of Engineers to the USCG.¹¹³ Now, the sole responsibility of the port rests on the COTP as a sector commander for the USCG.¹¹⁴ Thus, the COTP grew from a narrow to a much more expansive position over the maritime domain because of the need for flexibility to address the threats to port security.¹¹⁵

The COTP position received additional authority in the mid-2000s when the USCG reorganized. It gained the added responsibilities of being a sector commander along with the officer in charge, coordinator of marine inspections, federal on-scene commander, federal maritime security coordinator, and search-and-rescue mission coordinator.¹¹⁶ The COTP not only makes decisions in emergency situations but negotiates the shared use of the waterways to strike a balance with all parties involved.¹¹⁷ The safety, security, environmental protection, and the promotion of commerce for all are concerns in the COTP's role in the maritime domain and the USCG.¹¹⁸ Over time, the duties and responsibilities of the COTP have grown because of increased demands on the maritime domain, from shipping to terrorism to emergency and humanitarian concerns.¹¹⁹ Therefore, having SMART would benefit the COTP, because it could delegate some of its work to the interagency team to support its primary mission.

¹¹¹ Tucci, "The Captain of the Port," 7.

¹¹² Tucci, 8.

¹¹³ Brooks, "Coast Guard Captain of the Port," 14.

¹¹⁴ Kristen Trego, Caroline Beckman, and Justin Jacobs, "Taking Charge! Critical Success Factors for a Captain of the Port," *Coast Guard Journal of Safety & Security at Sea: Proceedings of the Marine Safety & Security Council* 75, no. 2 (Fall 2018): 10, <https://www.hsdl.org/?view&did=813532>.

¹¹⁵ Tucci, "The Captain of the Port," 8.

¹¹⁶ Trego, Beckman, and Jacobs, "Taking Charge!," 10.

¹¹⁷ Trego, Beckman, and Jacobs, 10–11.

¹¹⁸ Trego, Beckman, and Jacobs, 10–11.

¹¹⁹ Trego, Beckman, and Jacobs, 13.

At the local level, the COTP presides over the port but receives guidance from the Area Maritime Security Committee (AMSC).¹²⁰ This committee comprises professional subject-matter experts from agencies, including public and private stakeholders.¹²¹ The AMSC makes suggestions for its area of responsibility regarding the maritime domain's cybersecurity threats, the Marine Transportation System (MTS), risks and safety for maritime infrastructure, and the process of overall port security.¹²² The MTS network links the Lowcountry port to over 361 ports, 3,700 marine terminal ports, and 25,000 miles of navigable waterways used commercially used.¹²³ The MTS is a complex network of maritime operations with shoreline operations to complete the overall global supply chain.¹²⁴ The AMSC ensures that challenges and security capability gaps are addressed while assisting the COTP in protecting Charleston's port and waterways.

The COTP must be aware of his actions and decision making as they affect not only his leadership capabilities but also partnerships with private businesses. The COTP is vital to the development of successful security measures, but partnerships with private businesses and local first responders can be cultivated by the COTP's decisions in port security.¹²⁵ Bridging organizational cultures requires collaboration and partnerships among employees working for different agencies. Such collaboration happens as an outcome of the trust and communication built in these relationships, and emergency response depends on their strength.¹²⁶

¹²⁰ U.S. Coast Guard, *Area Maritime Security Committees: Challenges, Suggestions, Accomplishments, and Best Practices*, 2017 Annual Report (Washington, DC: U.S. Coast Guard, 2018), 1, <https://www.hsdl.org/?view&did=814020>.

¹²¹ U.S. Coast Guard, 1.

¹²² U.S. Coast Guard, 2–3.

¹²³ U.S. Coast Guard, 1.

¹²⁴ Department of Homeland Security, *Maritime Transportation System Security*, 2.

¹²⁵ Tucci, "The Captain of the Port," 12.

¹²⁶ Mihm, *Managing for Results*, 13–14.

2. Maritime Missions: The United States Coast Guard and Customs and Border Protection

Under the COTP, the USCG and CBP are the next in command for the proposed mission of SMART. The USCG and CBP provide both manpower and technology that SMART would need to protect the Lowcountry's maritime security seamlessly. The USCG's vital mission is to ensure that all vessels operating in navigable waters of the homeland are safe and secure.¹²⁷ The USCG has been a lead agency since 9/11 and has made great strides in protecting the maritime domain in the United States by reducing America's vulnerability to terrorism, developing strategic guidance, and executing congressional mandates for security programs.¹²⁸ By the same token, the CBP is one agency with many regional sectors; this thesis, however, deals solely with the Charleston sector. The CBP's main objective is to prevent the entry of unlawful substances and people through the port of the Lowcountry.

The USCG has made progress in using open communications with the Seahawk IOC to better involve all parties in the operation.¹²⁹ According to the Port Security Committees, the USCG recognizes that without open communications, it cannot protect the ports—it needs the help of other federal, state, and local first responders in the Lowcountry to improve interagency collaboration.¹³⁰ Such help in the mission of maritime security is vital because the USCG has many other tasks and responsibilities besides maritime security. The venture must be coordinated and transparent to get the job done efficiently. The MSTA acknowledged the maritime gap, but the USCG has produced only a few MSRTs in the country. In keeping with the MSRTs proposed by the MTSA and stood up around the country, SMART would allow an interagency approach to fill this security gap. Funding for this program and equipment could assist the USCG and CBP with

¹²⁷ Henry H. Willis and David S. Ortiz, "Securing America's Ports," *RAND Blog*, March 6, 2006, <https://www.rand.org/blog/2006/03/securing-americas-ports.html>.

¹²⁸ Martin Malloy, "The U.S. Coast Guard's Ports, Waterways and Coastal Security Strategy Deployment Plan: An Operational Design for Maritime Homeland Security" (master's thesis, Naval War College, 2004), i, <https://www.hsdl.org/?view&did=450978>.

¹²⁹ Andy Crowe, "Agile and the US Coast Guard," *Savvy PM Blog*, June 27, 2011, <https://www.velociteach.com/2011/06/agile-and-the-us-coast-guard/>.

¹³⁰ Malloy, "The U.S. Coast Guard's Ports," 11.

strengthening defense using state-of-the-art detection and sensor technology and creating shared resources to benefit all agencies involved.

One example of the coordination that must take place between the USCG and other agencies is the relationship that links the CBP to the maritime security mission. In Charleston and elsewhere, the CBP has a role in detecting radiological materials that transit through the maritime zone overseen by the USCG. The CBP is responsible for the radiation portal monitor (RPM) program, intended to interdict or stop the potential entry of illicit radioactive material.¹³¹ In accordance with the SAFE Port Act, the CBP must screen all containers entering the 22 U.S. ports for radiation.¹³² Like all ports, Charleston, South Carolina, must have its cargo screened. The CBP must use radiation portal monitors to find items of interest. Once the CBP locates such an item, the protocol starts with isolating the cargo and determining the level and type of radiation.¹³³ This screening involves a stationary monitor at the port for large-scale radiation and uses handheld monitors when the CBP boards a ship. Although the RPM program is the responsibility of the CPB in Charleston, other local agencies support this radiological detection mission with interoperability and resources.

This interagency collaboration is an excellent example of goal congruence, where differences are put aside so that the entities involved participate and cooperate.¹³⁴ Such cooperation allows the stakeholders to maintain their identities and reduces the chances of failure from detection, which in the end has a common sense of purpose.¹³⁵

¹³¹ Department of Homeland Security, Office of Inspector General, *United States Customs and Border Protection's Radiation Portal Monitors at Seaports*, OIG-13-26 (Washington, DC: Department of Homeland Security, January, 2013), 13, https://www.oig.dhs.gov/assets/Mgmt/2013/OIG_13-26_Jan13.pdf.

¹³² Department of Homeland Security, Office of Inspector General, 1.

¹³³ Department of Homeland Security, Office of Inspector General, 2.

¹³⁴ Frazier, "A Cannon for Cooperation," 7.

¹³⁵ Frazier, 7–8.

3. The Federal Bureau of Investigation and Department of Homeland Security

The FBI can help initiate SMART by providing technical support in weapons of mass destruction, active-shooter incidents, counterterrorism, and maritime operations. DHS can help initiate SMART by providing extensive knowledge on tracking intelligence and preventing breaches to security through surveillance as well as experience with interagency operability. While convincing the FBI and DHS might present a challenge, because they might not want to be overly involved in such a regionalized mission, both federal agencies could benefit from creating a more self-sufficient region and clear boundaries on problems related to a jurisdiction that might increase their own efficiency. According to Mihm, it is possible to increase clarity between agencies by “developing common terminology, compatible policies and procedures, and fostering open lines of communication.”¹³⁶ If SMART were implemented and matured, DHS could provide ongoing financial support, and the FBI would be responsible for technical support, training, and intelligence sharing with SMART.

D. STATE AGENCIES IN LOWCOUNTRY MARITIME SECURITY

This section explains how some of the state agencies involved in Lowcountry maritime security have worked well together, despite budget and manpower restraints. It further explains the linkage between the Seahawk IOC, the South Carolina SLED, the South Carolina Department of Natural Resources (SCDNR), and the South Carolina Port Authority (SCPA). Weiss argues, “Agencies must be pushed or pulled into cooperation; they cannot be expected to embrace it naturally. If policymakers seek to promote cooperation, they must understand how to overcome the obstacles that lie in the way.”¹³⁷ Leaders of these organizations often value their subordinates’ preservation competition instead of collaboration.¹³⁸ Boundary-crossing is needed since stakeholders must accomplish the mission with less manpower and funding, as underlined by the focus group.

¹³⁶ Mihm, *Managing for Results*, 13–14.

¹³⁷ Weiss, “Pathways to Cooperation,” 94–95.

¹³⁸ Weiss, 94–95.

For example, SMART with multi-discipline individuals could do more with fewer people given their expertise. Boundary-crossing welcomes new and innovative ideas and rejects the mentality of merely doing things as they have always been done.¹³⁹ Reduced funding from the federal government forces the stakeholders to be more innovative in securing the ports by adopting some new concepts and accepting new roles like boundary-crossing and interagency opportunities.

1. The Seahawk Interagency Operation Center

The present process of intelligence/information gathering is a 24-hour-a-day operation of data being received by the Seahawk IOC, formerly Project Seahawk (2003), as mentioned earlier. The Seahawk IOC disperses real-time data to all Lowcountry agencies, but that was an easier task when the program, in its early stages, had 16 state and local agencies and four federal agencies at the IOC full time.¹⁴⁰ As of 2019, the number has been considerably reduced, which motivates the need for SMART to fill the manpower capability gap. The focus group recommended increasing funding and manpower for the Seahawk IOC. With such support, SMART members could assist in intelligence gathering and information sharing, providing a better flow of information for all Lowcountry agencies. Moreover, Seahawk IOC members could supply human intelligence if needed. Figure 5 is a photograph of the Seahawk IOC.

¹³⁹ Warmington et al., *Interagency Collaboration*, 9.

¹⁴⁰ Wrightson, *Maritime Security*, 17.



Figure 5. The Seahawk Interagency Operation Center¹⁴¹

2. The South Carolina State Law Enforcement Division, South Carolina Department of Natural Resources, and South Carolina Port Authority

SLED could play a unique role in SMART by providing pilots for the two proposed Bell 412 helicopters, as discussed in Chapter I. As the point agency for homeland security in South Carolina, SLED could provide manpower and technical support information for incidents involving weapons of mass destruction (WMDs), chemicals, or biological agents. SLED could play a part in creating SMART by increasing its support of regional needs in the Lowcountry and its importance to the state and county as a whole. In the maritime domain, the SCDNR could assist SMART by assisting with maritime boat operators and providing guidance to SMART in the waterway domain.

By the same token, the SCPA's mission is to protect the ports from all hazards. Although SLED, the SCDNR, and the SCPA might fear the over-allocation of funds to this project at the expense of other regions in the state or the ambiguity surrounding jurisdictional expectations, they could benefit from being more integrated with local needs and increasing their efficiency in responding to crises, despite being geographically

¹⁴¹ Source: Crowe, "Agile and the US Coast Guard."

separated from the Lowcountry. Agencies must be pushed or pulled into cooperation; they cannot be expected to embrace it naturally. If policymakers seek to promote cooperation, they must understand how to overcome the obstacles that lie in the way, like jurisdictional boundaries.¹⁴² To overcome such challenges, SMART would create a space for crossing jurisdictional boundaries to the benefit of all parties by sharing resources and collaborating on decisions.

E. LOCAL FIRST RESPONDERS IN LOWCOUNTRY MARITIME SECURITY

Local first responders in the Lowcountry include the Berkeley County Sheriff's Office, the Charleston City Police and Fire Departments, the Charleston County Sheriff's Office, the Mount Pleasant City Police and Fire Departments, and the North Charleston City Police and Fire Departments. These first responders have the mission to respond to maritime incidents within the Lowcountry and communicate intelligence to the Seahawk IOC. Local first responders must work with other state and federal agencies so that the leadership teams can make appropriate decisions in response to threats to security. Already stretched, local agencies have an increased workload that can be reduced through interagency cooperation.

All stakeholders need a memorandum of understanding (MOU) to assist in the jurisdictional problems in securing the port. Also, local first responders must increase interoperability while facing manpower shortages and fewer federal grants in securing the port of the Lowcountry. Cooperation between agencies can go smoothly or bring strong "turf-protective tendencies" to the surface.¹⁴³ For example, the agencies will work together smoothly when there is an emergency but resort to turf-protective mode in day-to-day operations to preserve their existence. The development of SMART seeks to create a space where jurisdictional boundaries can be overcome to the benefit of all parties.

¹⁴² Weiss, "Pathways to Cooperation," 94–95.

¹⁴³ Busuioc, "Friend or Foe?," 40.

III. THREATS TO THE PORTS OF THE LOWCOUNTRY

This chapter examines current maritime threats and challenges in the Lowcountry as well as agency collaboration in mitigating them. The discussion includes perspectives gained from focus group interviews to convey a deeper understanding of security capability gaps and maritime challenges. Then, the focus group interviews provide context and insiders' perspectives into these interagency trends at the Lowcountry's seaport terminals. Finally, this chapter offers how SMART would respond to the current needs and challenges highlighted by focus group participants. Considering the research and data collected from the focus group discussions, and lessons learned from recent incidents, this chapter finds that SMART would meet the needs of current trends in threats and fill the gaps to support the missions of agencies that work to protect the region and nation.

A. MARITIME THREATS IN THE LOWCOUNTRY

After a thorough review of recent reports from the AMSC and trends in maritime security, I identified four security gaps most pertinent to the Lowcountry and the creation of SMART: active-shooter incidents, maritime criminal activities, weapons of mass destruction, and emergent threats such as cybersecurity and unmanned aerial systems (UASs).

Significant challenges faced by first responders include increased active-shooter incidents and the need for new equipment and manpower to aid tactical and air response teams. Recently, AMSCs in New York and New Jersey determined that a waterborne active-shooter incident was a relevant threat.¹⁴⁴ As a result, the AMSCs' small passenger vessel panel assisted in gathering information to develop response protocols and draft a Passenger Ferry Active Threat Plan.¹⁴⁵

In addition, maritime criminal activities are becoming more prevalent, and advanced law enforcement teams need to innovate to stay ahead of the challenges. The

¹⁴⁴ U.S. Coast Guard, *Area Maritime Security Committees*, 5.

¹⁴⁵ U.S. Coast Guard, 5.

Delaware Bay AMSC identified a need to focus on maritime tactical operations nationwide. Subsequently, the organization researched and began working on integrating teams to innovate and improve interagency communication to improve exercise participation and coordinate responses in real-time events.¹⁴⁶

WMDs are an emerging threat as more national enemies become nuclear. The Port of Huntington/Tri-State AMSC participated in its first-ever radiation and nuclear tabletop and full-scale exercise hosted by the Cabell and Wayne County, West Virginia, Local Emergency Planning Committee. Lessons learned from these exercises have guided the development of response programs and identified needed equipment.¹⁴⁷

Finally, as ports increasingly employ technology for efficiency, threats to cybersecurity accompany innovation, and as UASs become more popular and less expensive, they have also become a threat to maritime security. At a U.S. Senate hearing in 2017, the FBI's director announced that the use of UASs to carry out terrorist attacks is an imminent threat to national security.¹⁴⁸

The USCG and agencies that support its maritime security mission have a responsibility to regulate suspicious UAS activity.¹⁴⁹ This research project seeks to build on the priorities outlined by the AMSC to prevent and prepare for the threats identified by federal, state, and local agencies through shared reporting. The next section looks at how each of these threats relates specifically to the Lowcountry.

1. Active Shooters

As active-shooter incidents become increasingly common, agencies responsible for maritime security need to be proactive in preparing for an active maritime shooter event. Any waterborne vessel, including tour boats and ferries, could contain an armed shooter or supporter of violence. Most waterborne activities, whether boating, skiing, or otherwise,

¹⁴⁶ U.S. Coast Guard, 7.

¹⁴⁷ U.S. Coast Guard, 7.

¹⁴⁸ U.S. Coast Guard, 7.

¹⁴⁹ U.S. Coast Guard, 7.

lack metal detectors or other deterrents, which are standard in most other public transportation and leisure settings. Violence can occur anywhere on the water, not necessarily in a populated area. As shown in Figure 6, people who are on the water enjoying leisure time are far from assistance and unaware of possible danger. An active shooter could be especially problematic in this scenario because he could go undetected until it was too late.



Figure 6. Example of Vulnerable People on a Lowcountry Waterway¹⁵⁰

A mass shooting at the Mother Emanuel African Methodist Episcopal Church in Charleston, South Carolina, left nine people dead in June 2015.¹⁵¹ In the wake of this incident, Charlestonians are keenly aware of the repercussions of this particular threat. Prevention, deterrence, and restoring safety are at the forefront of strategy and planning in the Lowcountry. The waterway can offer a short path from an isolated local tourist spot

¹⁵⁰ Source: Hunt, “The Lowdown on South Carolina Low Country.”

¹⁵¹ “The Victims: 9 Were Slain at Charleston’s Emanuel AME Church,” National Public Radio, June 18, 2015, <https://www.npr.org/sections/thetwo-way/2015/06/18/415539516/the-victims-9-were-slain-at-charlestons-emanuel-ame-church>.

such as the Charleston Battery, a walkway beside the water that overlooks historic spots, including Fort Sumter. If an active-shooter incident occurred near the Battery, the streets would fill with people trying to flee. The crowded venue would delay law enforcement response because personnel would have to exit their vehicles and make their way on foot to stop the active-shooter incident.

The focus group concurred that an active shooter is a principal threat to the Charleston port and maritime domain. Various members of the focus group quickly identified isolated areas on the waterways as vulnerable to active-shooter events. The focus group's discussion of active-shooter threats revealed a weakness because protocols on who would respond and by what means have not been specified. The ability to handle an active shooter in the maritime domain efficiently was also a concern of the focus group. In response to the concern, an active-shooter forum has formed to address this threat in the Lowcountry.

2. Maritime Criminal Activities

Maritime criminal activities range from common theft to illegal trafficking in the shipping industry. Not only are maritime crimes a problem for the security of goods and people; they also create massive harm to the maritime industry's economy.¹⁵² The illegal carrying of weapons, unauthorized entry, tax evasion, and human trafficking, to name a few, represent some of the crimes impacting maritime industry and safety.¹⁵³ Part of preventing crime is clarifying who has access to what areas in and near the port. The more transparency there is in determining who can enter and leave, the more secure the port, ships, and their contents will be.

The SAFE Port Act provides guidance for credentialing U.S. ports and controlling access.¹⁵⁴ As the focus group discussed maritime criminal activities, gaps in credentialing emerged as an area that needs improvement. Participants expressed particular concern over

¹⁵² "9 Types of Maritime Crimes," Marine Insight, last modified October 11, 2019, <https://www.marineinsight.com/marine-safety/9-types-of-maritime-crimes/>.

¹⁵³ Marine Insight, 1.

¹⁵⁴ Close, "TWIC as an Access Control," 13.

TWIC because criminals freely receive the card, and some individuals carry two cards, which is also illegal. The focus group mentioned the TWIC card as a security problem for the maritime domain. For example, a TWIC card is neither canceled nor deactivated when someone reports it lost or misplaced. Although the goal of the TWIC program is to better secure the ports, these reports highlight how this program is falling short of its goal.

Terminals in the Lowcountry recently received TWIC readers while some individuals use an app on their phones. The TWIC program addresses only individuals who are U.S. citizens or lawful permanent residents. Foreign crew members, who cannot acquire TWIC cards, have their passports scanned for identification. The focus group mentioned that Savannah, Georgia, has TWIC scanners with a biometric capability. Although Charleston used this scanner, it did not perform well. The TWIC scanners and access control systems have not collected the proper data, and stations have reverted to the use of on-site personnel to admit individuals into the port.¹⁵⁵ The background check is designed only to prevent access to people convicted of grave crimes—those convicted of minor crimes, such as driving while intoxicated, theft, and assault, may still obtain a TWIC card.¹⁵⁶ Ambiguity about who can obtain a TWIC card and the laxness of the verification process raise concerns.

3. Weapons of Mass Destruction

Nuclear, chemical, radiological, and biological weapons threaten the maritime domain just as they do any other domain.¹⁵⁷ According to the USCG and COTP, maritime transportation security is at the vanguard of national security.¹⁵⁸ Currently, the USCG and CBP work together on proactive methods for radiation detection. The AMSC wants to

¹⁵⁵ *Threat, Risk, and Vulnerability: The Future of the TWIC Program: Hearing before the Subcommittee on Border and Maritime Security*, House of Representatives, 113th Cong., 1st sess., June 18, 2013, 18, <https://www.hsdl.org/?abstract&did=739349>.

¹⁵⁶ U.S. Congress, House, 22.

¹⁵⁷ Trump, *National Security Strategy*, 8.

¹⁵⁸ U.S. Coast Guard, *Area Maritime Security Committees*, 5.

counter emerging problems and plays an integral role in maritime security, particularly in the realm of preventative radiological and nuclear detection.¹⁵⁹

The Charleston AMSC recently responded to a real-world “dirty bomb” report that involved an inbound container ship in 2017.¹⁶⁰ The Charleston AMSC successfully managed the situation and shared the success of joint operations with other AMSCs across the country.¹⁶¹ The Charleston AMSC used its Area Maritime Security Plan’s radiological/nuclear detection and response annex to solve the possible threat facing the port.¹⁶² Ports in the Lowcountry have been on watch since the incident and have sought more active radiation detection methods—for both the port and the Charleston area in the case of a large-scale event. The focus group verified the equipment and manpower currently in place; stakeholders agree that Lowcountry first responders have proven exemplary in the arena of radiation detection.

4. Emergent Threats

In the maritime domain, critical emergent threats include UASs and breaches of cybersecurity. These threats are challenging as technology is continuously changing and improving. Various AMSCs are discussing the use of UASs. An unauthorized UAS flying over or near critical maritime infrastructure poses a problem that is not clearly addressed in current regulations.¹⁶³ The Federal Aviation Administration (FAA) has jurisdiction for drones, but its working group on UASs in conjunction with AMSCs has produced no tangible results.¹⁶⁴ Yet events in the United States have shown the illegal use of UASs. For example, in 2018, a DJI Phantom UAS platform hit a helicopter in the Charleston area, causing it to crash, but no one was injured.¹⁶⁵ The helicopter was being used to teach

¹⁵⁹ U.S. Coast Guard, 5.

¹⁶⁰ U.S. Coast Guard, 5.

¹⁶¹ U.S. Coast Guard, 5.

¹⁶² U.S. Coast Guard, 5.

¹⁶³ U.S. Coast Guard, 7.

¹⁶⁴ U.S. Coast Guard, 7.

¹⁶⁵ “DJI Phantom Blamed for Helicopter Crash,” UAS Vision, February 19, 2018, <https://www.uasvision.com/2018/02/19/dji-phantom-causes-helicopter-crash/>.

someone how to fly when the UAS appeared. The instructor took control of the helicopter as the UAS hit the tail rudder, causing the helicopter to make an emergency landing. The helicopter ended up on its side, and the FAA opened an investigation into the accident, as did the Charleston City Police Department.¹⁶⁶ The threat from UASs is a substantial concern since they are in abundance and inexpensive to own. The impact of UASs on the maritime domain is a unique problem in such a large unincorporated area over the water in the Lowcountry. The focus group has examined this emerging technology, but no real plans are in place.

Another emergent threat concerns infrastructure because the shipping industry's dependence on its computer network makes it vulnerable to cyberattacks. Both a master's thesis and other literature predict cyberattacks as the latest threat to the maritime domain.¹⁶⁷ Kramek justifies this idea by presenting U.S. ports as increasingly technology-driven with control systems and networked computers to ensure commerce flows smoothly within the shipping industry.¹⁶⁸ The United States has yet to define maritime cybersecurity, and the possibility of unreported cyberattacks is unknown because it is not fully recognized.¹⁶⁹ Presidential Policy Directive 21, *Critical Infrastructure Security and Resilience*, and Executive Order 13636, "Improving Critical Infrastructure Cybersecurity," offer guidelines to combat cyberterrorism.¹⁷⁰ Cyber threats are real and can affect anything from accessing logistical software to taking control of a ship's navigation or engine.¹⁷¹ The focus group advised that cybersecurity is a work in progress and recommended that more efforts be directed to this area as soon as possible.

¹⁶⁶ UAS Vision.

¹⁶⁷ Christopher R. Hayes, "Maritime Cybersecurity: The Future of National Security" (master's thesis, Naval Postgraduate School, 2016), 44, <http://hdl.handle.net/10945/49484>.

¹⁶⁸ Joseph Kramek, *The Critical Infrastructure Gap: U.S. Port Facilities and Cyber Vulnerabilities* (Washington, DC: Brookings Institution, July 3, 2013), 1, <https://www.brookings.edu/research/the-critical-infrastructure-gap-u-s-port-facilities-and-cyber-vulnerabilities/>.

¹⁶⁹ Hayes, "Maritime Cybersecurity," 6.

¹⁷⁰ Hayes, 7.

¹⁷¹ Hayes, 7.

B. CURRENT INTERAGENCY EFFORTS AND HOW SMART WILL FILL THE GAPS

First responders in the Lowcountry are already using interagency concepts to help solve their security gaps involving active shooters, maritime criminal activities, weapons of mass destruction, and emergent threats. This section dives deeper into the current and emergent threats but through the lens of identifying what work has already been done and how SMART, if implemented, would support the mission and implement the findings of the present research.

1. Capabilities and Gaps: Active Shooters

Lowcountry first responders have created a multiagency active-shooter forum to develop ideas in combating this threat. This forum is a means for finding a solution to a very complex and unpredictable threat while assisting the COTP and other agencies in defending against an active shooter.

In the event of an active shooter in downtown Charleston at the Battery, as mentioned earlier, the SMART concept could address the problem more effectively and expeditiously. SMART could put law enforcement personnel onto the Battery from the water and quickly find a resolution to the active-shooter incident. This type of action is vital in preventing violence and saving lives. This proactive measure could bring the situation under control, subdue the terrorist threat, and not affect the quality of life for people in the United States. This capability makes SMART the needed option in times of emergencies that affect the maritime domain.

2. Capabilities and Gaps: Maritime Criminal Activities

Maritime criminal activities have been successful in exploiting interagency operations in drug and human trafficking and unauthorized entry. The unauthorized use of TWIC cards is an ongoing problem that is presently handled with mobile scanners or phone apps, but it is unclear whether the program has worked or is still a problem. First responders in the Lowcountry have conducted operations such as Operation Shrimp and Grits, a multi-

state, multi-jurisdiction maritime enforcement operation.¹⁷² This operation is an excellent example of interagency partnerships and the successful use of broad jurisdiction and authority in the maritime domain.¹⁷³ More than 86 agencies and 400 people have participated in this operation covering South Carolina, Georgia, and Florida, but it is put into effect only a few times a year.¹⁷⁴

The focus group's recommendations were to enhance the TWIC program and follow more stringent rules to protect the terminals and reduce the known threat. Implementing a TWIC card similar to the real ID card would make it hard to duplicate. Canceling TWIC cards when they are lost, have been revoked, or have expired is crucial. Improvements to the TWIC system would be one step toward interagency transparency and communication. Another recommendation is to enforce stricter criminal history guidelines for TWIC applicants, so criminals are not allowed into the port. The TWIC card is the first line of defense against people who are not following the rules and regulations set forth to protect the maritime domain. This one initiative will make it easier for SMART and the Seahawk IOC to protect the port of Charleston. SMART would help by providing more skilled workers and technology to check the ports' access and egress. Moreover, SMART could manage operations like Shrimp and Grits and Hammerhead more frequently.

3. Capabilities and Gaps: Weapons of Mass Destruction

Lowcountry first responders have been successful in denying the entry of unlawful radioactive materials. The maritime radiation detection program on boats from different agencies has been successful along with the efforts of the CBP in the Lowcountry. The helicopter being used by the National Nuclear Security Administration is the Bell 412.¹⁷⁵

¹⁷² Tenley Long, "Operation SHRIMP and GRITS: Boating Safety, Maritime Security," Joint Base Charleston News, August 14, 2018, <https://www.jbcharleston.jb.mil/News/Article/1602023/operation-shrimp-and-grits-boating-safety-maritime-security/>.

¹⁷³ Long.

¹⁷⁴ Long.

¹⁷⁵ Roxanne Scott, "What's Up with the Gliding Helicopter in Atlanta," WABE (Atlanta), January 29, 2019, <https://www.wabe.org/whats-up-with-the-gliding-helicopter-in-atlanta/>.

The Atlanta mission manager, Russell Malchow, advised that the helicopter is ideal for the test. Malchow also states that most local agencies have radiation equipment but cannot do aerial detection.¹⁷⁶ The CBP has tried to cover all of its capabilities with air and marine operations, and this is a security gap that can be filled with the SMART concept's marine unit.¹⁷⁷ One of the strategic goals of the CBP is preventing terrorism at ports of entry.¹⁷⁸ This mission includes the detection of WMDs and weapons of mass effects that come into the United States via the ports.¹⁷⁹ One of the most significant capabilities that an aerial platform brings to the SMART concept is radiation detection.

Radiation detection with an aerial platform in a port setting can cover a larger area than marine units on the water.¹⁸⁰ The proposed helicopter for SMART, the Bell 412, can assist the CBP with its mission by using state-of-the-art detection and sensor technology to protect the maritime domain.¹⁸¹ The aviation element will be a crucial part of the success of radiation detection with the oversight of the CBP. The use of a helicopter to scan container ships before arrival at Charleston's terminals is innovative for the Lowcountry maritime domain. This technology has been used for other events to maintain radiation safety. SMART, if appropriately managed and given the right resources, could augment the CBP's capability to detect and interdict vessels that are carrying illicit or other undeclared radioactive material before arriving in port.

The emergency management personnel, hazardous material technicians, and explosive detection canine teams of the proposed SMART concept will be vital to handle the delicate and dangerous parts of hazardous materials or weapons of mass destruction. And the command and control of emergency management are fundamental to controlling the scene.

¹⁷⁶ Scott.

¹⁷⁷ U.S. Customs and Border Protection, *Protecting America*, 31.

¹⁷⁸ U.S. Customs and Border Protection, 13.

¹⁷⁹ U.S. Customs and Border Protection, 13.

¹⁸⁰ "Highlight: Aerial Radiation Detection Systems," Department of Homeland Security, May 2013, <https://www.hsdl.org/?view&did=812109>.

¹⁸¹ Department of Homeland Security.

4. Capabilities and Gaps: Emergent Threats

The capabilities of having a real-time, intelligence-gathering, cyber unit with threat and UAS deterrence analysis are necessary to face emerging threats in maritime security. The Seahawk IOC, which does not have a cyber unit in place, needs to embrace cybersecurity to protect the maritime domain. The cyber problem is being addressed, but the obstacles of funding and manpower, according to the focus group, are keeping a dedicated cybersecurity unit at bay.

The Seahawk IOC can handle all missions of gathering and coordinating intelligence while providing a means to share information among the multiple agencies.¹⁸² But this sharing of information could be more fruitful once SMART's multi-discipline members are involved in gathering intel. SMART would give the Seahawk IOC more investigative options to fill the security gap capabilities by obtaining more threat assessments in real time. The additional manpower would allow a more hands-on approach in processing the threat assessment for maritime crimes like drug and human trafficking, the illegal possession of weapons, and unauthorized entry. SMART could assist in the apprehension of individuals violating maritime crimes from the Seahawk IOC's investigative and threat assessments.

The USCG made a change to operational procedures to expedite threat analysis information when sector command centers transformed into interagency operation centers in 2009.¹⁸³ The transformation to IOCs helped the USCG satisfy the requirements of the SAFE Port Act and change its face to fit the interagency look.¹⁸⁴ This initiative made the USCG more agile in working the threat analysis of maritime security. Moreover, this evolution increased the IOC's capabilities in providing information for maritime domain awareness (MDA)—a layered understanding of activities, threats, and hazards throughout the maritime arena.¹⁸⁵ The MDA gives decision-makers the capability to make credible

¹⁸² Crowe, "Agile and the US Coast Guard"; Braesch, "Project SeaHawk."

¹⁸³ "Interagency Operations Centers/Command 21," U.S. Coast Guard Acquisition Directorate, September 2009, 1, <https://www.hsdl.org/?view&did=22463>.

¹⁸⁴ U.S. Coast Guard Acquisition Directorate, 1.

¹⁸⁵ Campion, "Strategic Maritime Domain Awareness," 8.

and viable decisions from real-time information. However, the ever-changing technologies are challenging to maintain at the highest level of threat analysis without proper funding. The present threat analysis system for MDA allows the Seahawk IOC to process only two categories of information: situational awareness (known and observable) or threat awareness (anticipated or expected).¹⁸⁶ Nevertheless, the change to the IOC made the information more detailed and usable for the USCG.

SMART would provide additional manpower for developing better situational awareness and handling real-time threat assessments as jurisdictional boundaries were realigned. It will be crucial to get threat analysis information to SMART, so it can take the appropriate action needed. This action will be a unified effort between SMART and the Seahawk IOC to mitigate the situation, preferably without hindering commerce.

The focus group recommended a cyber unit be created. No cybersecurity rule or regulation for maritime security has been granted in the United States; minimal action has been taken to secure the networked system that undergirds port operations.¹⁸⁷ Notably, the shipping business depends heavily on networks, outside sources, and systems for navigation.¹⁸⁸ Thus, the cyber unit would direct its expertise toward threats against the four vulnerable critical systems on ships: the Automatic Identification System, the Global Positioning System, the Industrial Control System, and the Electronic Chart Display Information System.¹⁸⁹

The threat of a UAS being used in illegal activity is an emerging threat in the maritime environment. There have been many illegal uses of UASs in the United States for criminal activity. For example, an individual was sentenced to 48 months in prison for illegally operating a drone to release contraband at a prison in Georgia.¹⁹⁰ The individual

¹⁸⁶ Campion, 8.

¹⁸⁷ Kramek, *The Critical Infrastructure Gap*, 1.

¹⁸⁸ Hayes, "Maritime Cybersecurity," 37.

¹⁸⁹ Hayes, 37; Campion, "Strategic Maritime Domain Awareness," 37.

¹⁹⁰ "Illegal Drone Operator Sentenced for Attempting to Drop Drugs into a Georgia State Prison," Department of Justice, October 31, 2019, <https://www.justice.gov/usao-mdga/pr/illegal-drone-operator-sentenced-attempting-drop-drugs-georgia-state-prison>.

did not register the UAS that he was flying, nor did he possess the proper licenses for operating a UAS in the United States—both actions are required by law.¹⁹¹ The sentencing set a precedent, that this type of activity will not be allowed and that violators will be prosecuted.¹⁹² This is a challenging threat for which technology-driven solutions are being explored. Only federal agencies can legally take down a drone in air space.¹⁹³ Interagency cooperation with SMART, the Lowcountry UAS forum, and other agencies could provide more solutions for this threat.

SMART could handle strategic actions from the information obtained by the Seahawk IOC, which would address any of the threats to maritime security with the assistance of the USCG intel group. The combination of the Seahawk IOC and SMART could tackle strategic objectives with the assistance of the COTP. Moreover, SMART could handle the information from the Seahawk IOC out in the field. This direct proficiency to enhance the capabilities of SMART would handle threats with quick, established methods.

5. Gaps and Security: Emergency Management and Tactical and Air Operations

Presently, the USCG and SLED shoulder the weight of tactical and air operations with some assistance from Lowcountry tactical teams in disaster incidents. Missions that require a tactical or aviation team include search-and-rescue missions, responses to suspected radiation or weapons of mass destruction, responses to waterborne vessels harboring illicit activities, or rescues when weather inhibits a response by boat. To date, there has been no interagency collaboration with these entities as a multiagency group. Each agency tends to react to a situation as it arises rather than having a strategy for who can take care of which part of the response in these disaster incidents. The use of tactical and air capabilities has been successful in these operations, but the whole-of-community

¹⁹¹ Department of Justice.

¹⁹² Department of Justice.

¹⁹³ “Counter Unmanned Aircraft Systems Legal Authorities,” Department of Homeland Security, May 6, 2019, 1, https://www.dhs.gov/sites/default/files/publications/dhs_cuas-legal-authorities_fact-sheet_190506-508.pdf.

approach is not yet formed as required by presidential directives, which prevents the teams from using their resources most efficiently. Furthermore, as each of these agencies compete for funding and resources, the agencies lack the tools that they need to succeed.

Specifically, the teams working to protect the Lowcountry could benefit from a twin-engine helicopter to transport the tactical unit to the scene rapidly. The acquisition of a helicopter capable of keeping the maritime domain secure is crucial; not only will it transport teams of highly trained responders, but it can also carry radiation detectors to prevent the entry of radioactive materials. Like the helicopter and waterborne emergency operations center vessels mentioned in the examples, a helicopter that is shared by SMART could help the individual agencies reach their safety goals. When asked about the acquisition of a twin-engine helicopter, the focus group expressed concern over the lack of this capability within the Lowcountry or the state of South Carolina. If one engine lost power while over water, the aircraft would have a second one to retrieve the crew and return to land. Although one of the interviewees representing the USCG advised that the USCG Dolphin aerial platform is a twin-engine helicopter, the Dolphin cannot act as a troop carrier, nor does it have radiation detection equipment attached. As for aerial platforms in the Lowcountry, one of the helicopters would be assigned to the Charleston County Sheriff's Office, and the other helicopter would be located in Charleston and Columbia with an MOU to support SMART.

The Bell 412 helicopter proposed for SMART could be used for other large-scale events in the Lowcountry such as the U.S. Professional Golf Association Tournament or the Ravenel Bridge run. The Super Bowl has also used such helicopters to fly for baseline readings before the event to help with the accuracy of measurements during the game. The helicopter has a number of other advantages; it is a force multiplier when out on patrol of the harbor, and its cameras can retrieve detailed photographs and videos of criminal activity. Furthermore, the ability to carry personnel is crucial when putting forces on the ground or ship to combat terrorism. The helicopter is a game-changer for search and rescue, in hoisting individuals or fast-roping a team of assaulters onto a container ship, ferry, or remote island. The Bell 412 meets all of the requirements explored in this research, and its

ability to cover 572 miles of water by air is more effective than search and rescue by water. A Bell 412 helicopter is illustrated with a fast rope/troop carrier platform in Figure 7.



Figure 7. A Bell 412 Helicopter with a Fast Rope/Troop Carrier Platform¹⁹⁴

A robust tactical component with air support is vital to maritime security. In its coverage of Charleston and Berkeley counties' 572 square miles of water, air support is crucial for putting a tactical team on an uncooperative or hazardous container ship. The tactical team would comprise approximately 20 operators capable of handling a maritime mission in the Lowcountry. This team would protect or save lives from either an air or water platform, depending on the mission set forth.

¹⁹⁴ Source: NYPD Special Ops, "#NYPD #Aviation Unit Deploys ESU Specialized Training School Students via Fast Rope during Tactical Insertion Training," Twitter, March 6, 2017, <https://twitter.com/nypdspecialops/status/838917109740683265>.

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IV. SMART LEADERSHIP AND INTERAGENCY COLLABORATION

This chapter explores the challenges that come with aligning the resources of multiple agencies with multiple leaders to complete law enforcement and homeland security tasks. There is a strong need for a consolidated organization to be effective and accountable to shared leadership. This chapter first discusses the shared leadership proposed for SMART and then identifies four key areas of interagency collaboration that will prove critical for success: boundary-crossing, the process model of cooperation, communication, and unified policies and guidelines.

A. SMART LEADERSHIP

The leadership for SMART will be shared. This thesis proposes that the SMART team be headed by a Board of Directors comprising LFRs, as well as the COTP and the chief of SLED or their designees. This section first discusses how SMART's leadership should be divided to reflect two functions, specifically the different demands of day-to-day operations and emergency situations. Then, it discusses how SMART leadership must adapt and empower all team members, how it can effectively create shared understandings and agreements, and how it must define its mission and goals.

First, day-to-day operations leadership will be guided by standard policies and procedures developed by the Board of Directors. This managerial concept of power being shared builds trust among the stakeholders.¹⁹⁵ The policies and procedures must align and merge with existing agencies' policies and procedures; this process will be monitored by the Board of Directors. According to Mihm, leaders must be consistent and collaborate when they preside over transitions and changes, and SMART represents a significant change to the operational culture of the law enforcement community of the Lowcountry,

¹⁹⁵ Steven Kelman, Sounman Hong, and Irwin Turbitt, "Are There Managerial Practices Associated with the Outcomes of an Interagency Service Delivery Collaboration?," *Journal of Public Administration Research and Theory* 23, no. 3 (2012): 618.

so identifying the correct participants for board membership is vital to the success of the concept.¹⁹⁶

The collaboration of the Board of Directors will help develop the procedures for intelligence gathering and the clearing of piers, docking areas, and inbound shipping vessels. It will also delegate the duties of port entry checkpoints to prevent unauthorized entry. The leadership team will also delegate personnel to perform random checks at the port entry and spot checks of vessels for illegal contraband, board shipping vessels, detect radiation, and complete any other daily tasks deemed necessary based on intelligence gathered by the Seahawk IOC. The direct involvement of individuals with in-depth tactical and operational knowledge in a variety of relevant settings will lend credibility to the developmental effort and reduce the risk that agencies identified to participate in SMART will be obstructionists in their engagement with the new organization. This is a key element of effective interagency leadership: securing buy-in from technical experts who represent different constituencies.¹⁹⁷

Second, the SMART leadership plan must identify who will be tasked to make quick and decisive answers in immediate or emergency situations; these are decisions made in the moment when there is no time to convene a meeting of the board. This leadership requirement will be established with the chief of SLED or a designee and the COTP. Examples of immediate or emergency situations include an active shooter or a WMD event, where leadership must be swift and undeviating because of the potential costs—human and financial—that would be incurred from a delay. These types of situations must be acted upon immediately by the two individuals identified above, and SMART’s charter must be written to delegate this “snap decision” authority to a shared leadership arrangement. The shared leadership of SMART for these dynamic situations will be a testimony to how well it can develop the complicated policies and procedures for SMART in an emergency. For example, like the JITAF-S, the shared leadership of SMART for these dynamic threats will

¹⁹⁶ Mihm, *Managing for Results*, 21. SMART represents a significant change for the operational culture of the law enforcement community of Lowcountry, so identifying the correct participants for board membership is vital to the success of the concept.

¹⁹⁷ Mihm, *Managing for Results*, 16.

be an example of how to develop complicated policies and procedures for other interagency organizations.¹⁹⁸

SMART leadership has to be adaptive in providing a team with fair guidance and resources to experience success.¹⁹⁹ The leadership from both the LFR Board of Directors and the shared leadership of the COTP and SLED will be adaptive in providing the team with adequate support. For example, the LFR Board of Directors will help decide what emergencies the COTP and SLED will handle individually and together, but all entities will have to work together for cohesive policies and procedures that work for everyone. The shared leadership will follow the model set forth by Munsing and Lamb, in which every participant has a voice in the decision-making process, and decision making enhances the overall team.²⁰⁰

When the SAME units are sent to perform a task, the shared leadership must trust that each individual leadership will complete the task. According to leadership theory, in shared leadership, authorities have to ensure that even at the lowest levels, team members can make decisions quickly without conferring with their superiors.²⁰¹ Shared leadership empowers its people, treats its people right, listens to what its people have to say, and pushes them.²⁰² In shared leadership, leaders must let the team run itself while they handle external affairs.²⁰³ Leadership must ensure that one group does not receive more attention than another because it takes away from the broader sense of the mission.²⁰⁴ SMART's proposed hierarchy is illustrated in Figure 8.

¹⁹⁸ Munsing and Lamb, *Joint Interagency Task Force–South*, 33.

¹⁹⁹ Munsing and Lamb, 65–66.

²⁰⁰ Munsing and Lamb, 66.

²⁰¹ Munsing and Lamb, 67.

²⁰² Munsing and Lamb, 67.

²⁰³ Munsing and Lamb, 67.

²⁰⁴ Munsing and Lamb, 63.

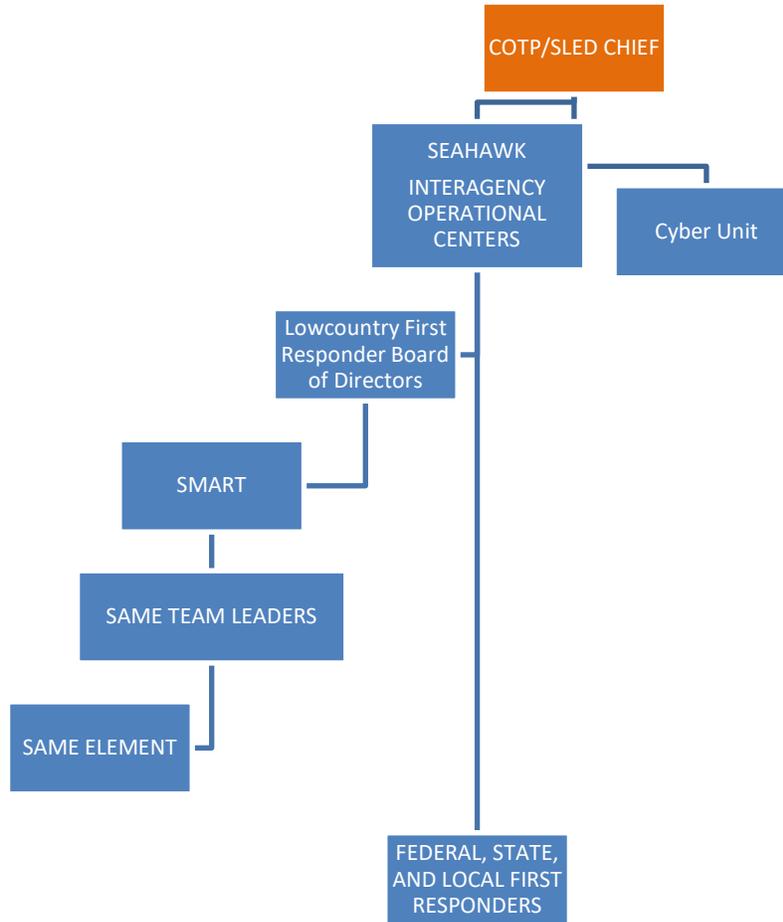


Figure 8. The Hierarchy of SMART

The roles and responsibilities of the leadership and agencies involved will be set by a signed MOU, laws, and written policies and agreements.²⁰⁵ Jurisdictional boundaries can be addressed head-on with a cross-jurisdictional unit between the federal, state, and local stakeholders.²⁰⁶ MOUs are useful in specifying the jurisdictional lines between the various maritime domains in order for the agencies to work as one entity.²⁰⁷ Cooperative agreements should be worked out between the different agencies to carefully negotiate how

²⁰⁵ Mihm, *Managing for Results*, 22.

²⁰⁶ Schnobrich-Davis and Terrill, "Interagency Collaboration," 508.

²⁰⁷ Schnobrich-Davis and Terrill, 509.

resources will be used.²⁰⁸ If this process is not done by SMART’s leadership, resources will be misused and the organization will become ineffective.²⁰⁹ For example, the use of the two Bell 412 helicopters must be managed so that one covers the Lowcountry when the other helicopter is down for maintenance, managing the resources with the agencies involved. This type of agreement covers the organization when equipment is down or broken, so the mission can carry on.

The stakeholders within SMART—the Board of Directors that comprises the Lowcountry’s first responder leadership—must define the mission, goals, and objectives for the unit. This shared leadership should be able to predict the outcome and accountability of the unit with clear and precise goals. Written agreements must solidify certain aspects of the SMART concept in daily operational needs, but Munsing and Lamb warn that written agreements can limit creativity.²¹⁰ Therefore, the SMART concept will encourage flexibility and adaptability in emergencies with minimum standards and policies. For example, the tactics used by the SWAT/Bomb element will have written and established minimum standards but enough leeway to be creative in solving a critical incident such as an active shooter on a ferry. Minimum standards and policies will ensure that all SMART participants are involved in the decision-making process of an incident. As SMART develops in the future, once it is established as an interagency organization, there will be opportunities to build the organization’s worth. SMART leadership will have to pursue additional cooperative agreements over time to get buy-in from voluntary participants.²¹¹

SMART will solicit the best-qualified people for jobs from each agency based on the qualifications and needs of the organization. Once someone’s “umbilical cord” is cut from one’s home organization, the task force culture will gradually encourage them to be more collaborative.²¹² The more that diverse individuals are melted into a productive team,

²⁰⁸ Munsing and Lamb, *Joint Interagency Task Force–South*, 41.

²⁰⁹ Munsing and Lamb, 33.

²¹⁰ Munsing and Lamb, 37.

²¹¹ Munsing and Lamb, 33.

²¹² Munsing and Lamb, 62.

the less dependent the team will be on its leadership for productivity.²¹³ The leader has been considered the most crucial individual on the team, but the entire makeup of the team is essential.²¹⁴ The method for bringing individuals to the team, their expertise and skills, and their benefits to the team are important factors in the team's productivity.²¹⁵

B. INTERAGENCY CAPABILITY GAPS AND SHARED LEADERSHIP CONCEPTS

This section discusses the jurisdictional and cultural gaps in the Lowcountry's interagency cooperation and presents the perspectives of experts included in the focus group discussion. This section further explains the collaboration and shared leadership concepts necessary for SMART and the Seahawk IOC to function correctly, including boundary-crossing, the process model for cooperation, communication, and unified policies and guidelines. The JIATF-S—a model of interagency cooperation at the federal level—and the Southeast Wisconsin Incident Management Team were successful because they employed boundary-crossing and the process model of cooperation.²¹⁶ Communication is also critical for the interagency to work effectively, helping with monitoring, evaluating, and reporting how SMART is making a difference.²¹⁷

Every agency that responds to emergencies in the Lowcountry is highly skilled and capable of responding to emergency events, but miscommunication between agencies over jurisdictional ambiguity is problematic. For example, in Charleston, the Metro Marine Unit comprises select state and local first responders, each of which reports to its respective agency. As highlighted by the focus group, each one is a capable maritime unit, but directions coming from multiple entities could duplicate responses, not to mention delay on-scene action. This miscommunication also complicates services in maritime security when time is essential. And each marine unit has its own standard operating procedures

²¹³ Munsing and Lamb, 61.

²¹⁴ Munsing and Lamb, 60–61.

²¹⁵ Munsing and Lamb, 61.

²¹⁶ Munsing and Lamb, 1.

²¹⁷ Mihm, *Managing for Results*, 14.

that may conflict with those of other agencies. Therefore, interagency collaboration gets bogged down in deciding the jurisdiction for criminal activities. This ambiguity slows down the response for the proper authorities to arrive, and a turf war could erupt when an entity crosses into another jurisdiction.

The Metro Marine Unit fails to provide a common framework or combination of strategies for all participants.²¹⁸ This gap, explained through the lens of rational choice theory, highlights the uncertainty surrounding the duration of incidents or the “irrationality” of some stakeholders in their unwillingness to reciprocate cooperation.²¹⁹ Agencies frequently change policies or guidelines in the face of resource scarcity—especially when they share those resources with other agencies.²²⁰ The inability to achieve transparency and overcome irrationality is a failure in interoperability.²²¹ Thus, the current cross-jurisdictional agency model threatens security in the maritime domain because many agencies cannot work as one when governed by a variety of different policies from different agencies. The many agencies must operate under one policy or standard with standard protocols for specific threats.

The lack of shared leadership and unified guidelines for all agencies involved creates ineffective collaboration at the Lowcountry port. This hierarchy, as outlined in Figure 4, represents the present command structure of the maritime domain, which includes the USCG/Maritime Intelligence Fusion Center; the COTP/Field Intelligence Support Team; the AMSC; the IOC; and federal, state, and local first responders. The present framework fails to create transparency where all involved have common knowledge or a combination of strategies.²²² Almost all Lowcountry law enforcement agencies have a tactical team of some sort, but there is neither transparency about each team’s capabilities nor cooperation where all train together with tactics. These shortcomings are common

²¹⁸ Egli, “Understanding the Role of Interagency Coordination,” 50.

²¹⁹ Egli, 50–51.

²²⁰ Egli, 50–51.

²²¹ Egli, 50–51.

²²² Egli, 50.

knowledge among the interviewees from the focus group, but no one agency wants to give up power over its tactical team to another agency for command and control.

The agencies represented in the focus group were open to the new concept of SMART, but the culture of diverse organization was present. In such a culture, agencies want to stay within their boundaries, and any change to normal routines is unacceptable.²²³ This sense of diverse culture is part of a collaborative mechanism that is addressed by building trust and fostering communication.²²⁴ This was present in the focus group with certain agencies that challenged the institution of change, such as the SMART concept.

1. Boundary-Crossing

According to Warmington et al., boundary-crossing is a way of creating opportunities for people from diverse professional backgrounds to collaborate so that they have the space to generate new professional practices.²²⁵ SMART would create a team with people from different specialties who are brought together to brainstorm for solutions to problems related to maritime security. The structure of SMART would provide a physical place where these experts could work together on a daily basis—not just vertically in specialized teams but horizontally with people from different fields of knowledge and levels of experience.²²⁶ Also, opportunities could be provided for cross-training from the multiple disciplines of SMART’s participants to better serve the maritime domain in the Lowcountry. For example, a tactical participant might be cross-trained with scuba divers or helicopter capabilities. The need for multidiscipline participants is what makes the SMART concept attractive to higher leadership: less manpower could accomplish more. Furthermore, SMART could perform with less personnel because cross-training all participants develops their talents with other expertise. SMART members would be multidisciplinary while maintaining the direction of the *NSMS*. For SMART to flourish, its

²²³ Mihm, *Managing for Results*, 14.

²²⁴ Mihm, 14.

²²⁵ Warmington et al., *Interagency Collaboration*, 14.

²²⁶ Warmington et al., 23.

leadership must take the approach of boundary-crossing with cross-boundary individuals, using collaboration, coordination, and cooperation to create a capable interagency unit.²²⁷

Boundary-crossing is essential in targeting maritime threats because it allows experts an opportunity to be creative and find the impetus to bring new ideas to existence. This concept would allow SMART personnel to be flexible in decision making and innovative in their actions. The boundary-crossing environment could affect the resistant culture over time to produce a more cohesive SMART organization.

2. The Process Model of Cooperation

Shared leadership would allow agencies to support the concerted effort in this interagency concept.²²⁸ The leadership of the present system with the Seahawk IOC would not change (see Figure 9) except that SMART would fall under the Seahawk IOC (see Figure 10).

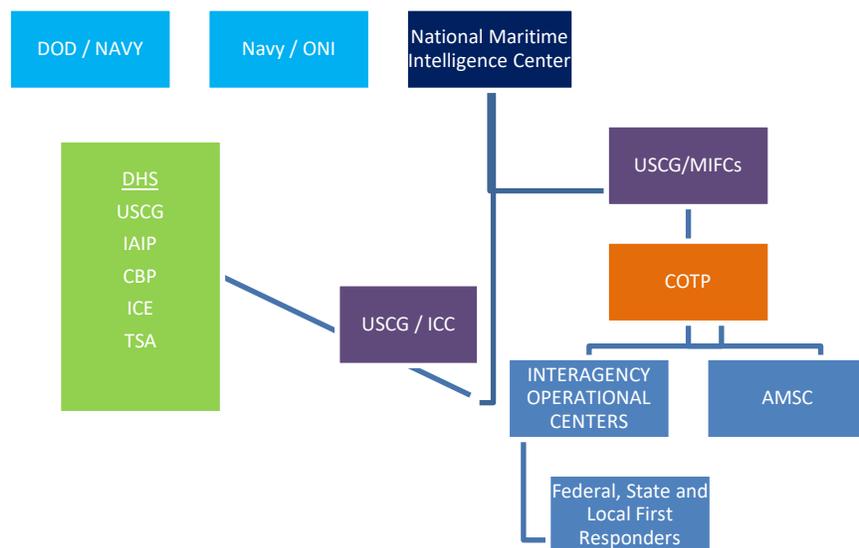


Figure 9. The Present Maritime Domain in the Lowcountry²²⁹

²²⁷ Mihm, *Managing for Results*, 20.

²²⁸ Mihm, 20.

²²⁹ Adapted from Wrightson, *Maritime Security*, 44.

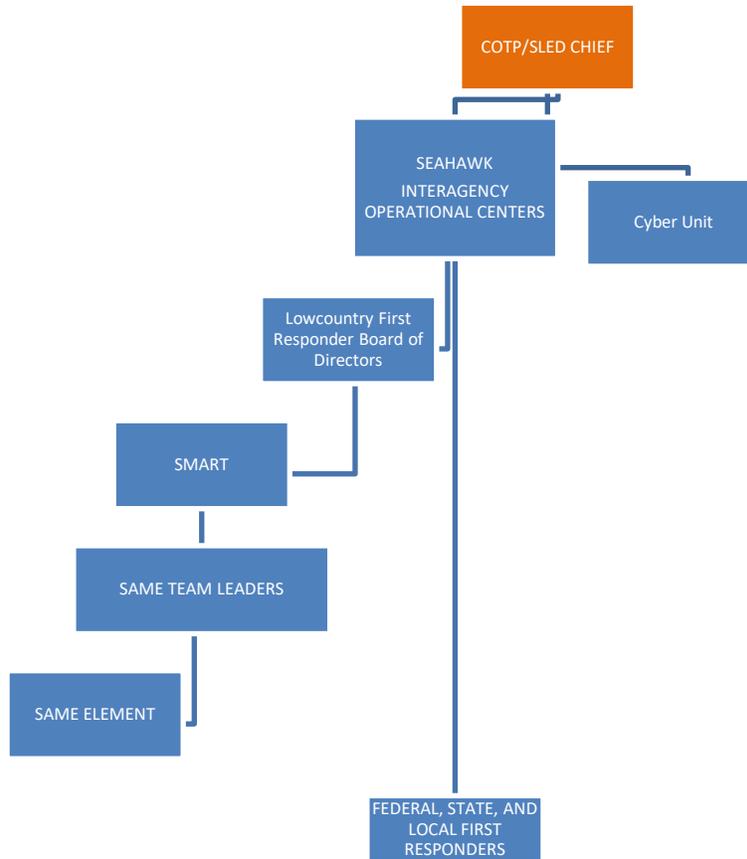


Figure 10. The SMART Maritime Domain in the Lowcountry

The shared leadership should use the following steps, as provided by the process model of cooperation:

1. Perceived problem must be shared across agencies
2. Resources must be available to handle problems cooperatively
3. Institutional capacity has to be established to mount cooperation.²³⁰

The process model of cooperation is easy to adopt into practice. For example, if agencies perceive a problem, the agencies must come together like in the focus group to brainstorm a solution to the problem they all share. In making resources available to handle problems as a team, when a problem arises, the proper resources can be deployed in a timely fashion. Agencies must commit personnel to show their level of cooperation toward

²³⁰ Frazier, “A Cannon for Cooperation,” 3.

the development of SMART. For instance, if an agency commits six people and another agency commits two, the level of cooperation is higher from the agency that committed more. The idea of numbers to gauge the investment of a particular agency is the concept of agency cooperation.

Sharing leadership will allow agencies to support the concerted effort in this interagency concept.²³¹ The team of SMART members is multidisciplinary while maintaining the direction of the *NSMS*. When a maritime threat appears, such as unauthorized entry to the port, all agencies must share the problem openly. When agencies support one another, they can also share resources, such as the proposed TWIC card system. Finally, each agency must be aware of what technology it can provide accordingly to solve the unauthorized entry into the port.

3. Communication

According to the Government Accountability Office, “Clear communication requires developing common terminology, compatible policies and procedures, and processes that foster open lines of communication.”²³² Figure 11 explains the MSPCC’s perspective on the relationship among federal, state, and local first responders, including where the proposed SMART will be if it is created.

²³¹ Mihm, *Managing for Results*, 20.

²³² Mihm, 14.

cooperate and communicate effectively by having shared terminology for criminal activity and the tools and strategies they use to respond.

4. Unified Policies and Guidelines

In addition to having clear lines of communication between the leaders of the agencies involved in maritime security, it will be essential to establish unified policies and guidelines. By sharing one set of policies and guidelines, agencies can plan, coordinate, and implement complex interventions to respond to the threats and challenges that are likely to emerge in the maritime security domain. These policies and guidelines could be adopted from any of the stakeholders or be the product of collaboration among SMART's Board of Directors. But it is this interagency planning that builds human and agency relationships and helps to facilitate the responses for maritime security.²³³ Currently, federal, state, and local agencies all have separate policies for dealing with threats such as WMDs. If each of those hierarchies could work collaboratively to write one comprehensive policy for emergency response, then it would be easier for SMART to address any emerging situation, regardless of the level of authority or the jurisdiction in which it is operating. The creation and development of SMART will work only if all entities strive for a strategy and interagency collaboration to meet the challenges and threats of securing the ports in the Lowcountry.

Using these interagency concepts to combine and build on the strengths that exist within the agencies' leadership will benefit all involved. When the teams unite through the proposed SMART concept and respond to an emergency incident, their intervention strategies can be implemented more rapidly. If many different teams respond to a call and have to answer to their individual leadership teams before they act, they could lose time to intervene. However, by making use of boundary-crossing and the process model of cooperation as well as working together to improve communication and unified policies, the daily work of command and control will function with greater ease.

²³³ Mihm, 14.

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V. CROSSING OVER WITH SMART

This research began with a recognition of the increasing importance of interagency operability as a strategy for constructing best practices in maritime security. The scope of this research was narrowed specifically to maritime security in the Lowcountry region of South Carolina and first proposed a creative solution to the existing problems in maritime security in the form of building the Specialized Maritime Action Response Team. This research asked how creating SMART could complement and enhance the effectiveness of the Seahawk IOC for maritime security in the Lowcountry of South Carolina and overcome the challenges of interagency collaboration. This research reviewed theories and directives for guidance as it analyzed proposed solutions to align SMART with the structures recommended by previous research and mandates. This research sought examples of organizations that have pulled together resources from multiple agencies to get their teams communicating and solving mutual problems efficiently.

The mission of SMART will be to support the federal, state, and local goal of achieving maritime security as a multidisciplinary, multiagency team, bolstering the current intelligence-gathering work of the Seahawk IOC; acting as a tactical force multiplier of existing agencies by assisting with daily operational needs, such as pier sweeps and maritime patrol; and providing immediate specialized response to emergency incidents. SMART can partner with the Seahawk IOC and provide a leadership center for members from all levels of agencies to communicate concerns, collaborate to solve problems facing maritime security, and share resources, training, and knowledge. The COTP, the chief of the South Carolina Law Enforcement Division, and Area Maritime Security Committees will provide leadership and guidance to SMART. SMART can function within the South Carolina Lowcountry region's agencies by providing a space to work out problems with interagency operability and prevent and mitigate threats to maritime security. This research emphasized that the rekindling of the Seahawk IOC, by adding a cyber unit and SMART to handle the ever-changing threats and challenges to the Lowcountry, is essential. SMART will become a collaboration of federal, state, and local agencies to implement the idea of interoperability across levels.

The analysis of the security gaps that face the Lowcountry is not just one agency's problem but involves all agencies in the area. The ability of all first-responder agencies to come to a consensus is vital. SMART depends on buy-in from all the stakeholders to be effective. This research focused on preventing, deterring, and countering threats to maritime security by creating a team that can reignite and bolster the maritime security teams at federal, state, and local levels. The team can do this by providing a home for representatives across levels to communicate and delegate work to decrease redundancy and increase efficiency in spending and implementing policies and procedures, in keeping with proven, state-of-the-art, best practices outlined by current research.

The interagency and leadership concepts that SMART will rely on include crossing boundaries, setting goals, building trust, clarifying jurisdictional ambiguity, improving communication, creating unified policies and guidelines, and applying the process model of cooperation. While a plethora of research and policies has demanded these concepts be utilized by federal, state, and local agencies, little work has been done to provide them with the interdisciplinary teams or resources they need to accomplish the goals that they are asked to fulfill. However, with an intentional team in place, agencies across levels can slowly start to build relationships of trust and have a say in the way they work together and operate to improve efficiency. Based on the results of Arizona's Department of Public Safety umbrella agency, the waterborne interagency operability center implemented for the Port of South Louisiana, the Southeast Wisconsin Incident Management Team, and the JIATF-S, it is my firm belief that agencies in the Lowcountry can and will learn to support one another by following these examples in their capacities to achieve the common mission of maritime security.

Based on this collection of information and a desire to determine whether it would be possible to assemble SMART in the Lowcountry, a focus group with local first-responder teams and regional leadership was convened to discuss the benefits, risks, and challenges. As determined by presidential directives and reports from the AMSC, the maritime threats discussed in this research were limited to active shooters, maritime crime, weapons of mass destruction, unauthorized entry to the port, and emergent threats like cyber and UASs. These are the reasons that Lowcountry depends on SMART to be

successful. These threats are real and unpredictable, and with SMART, the Lowcountry can be prepared. While local agencies are working hard to manage the threats, the USCG and SLED shoulder the weight of tactical and air operations with some assistance from Lowcountry tactical teams in critical incidents. There is jurisdictional ambiguity among agencies when these events arise in preventing unauthorized entry or technologies in the interworking of the port. SMART would provide answers to complexities that as yet have no clear solutions within the maritime security system.

A. RECOMMENDATIONS/IMPLEMENTATION CHALLENGES

While unifying tactical teams using a multidisciplinary, multiagency approach is daunting, the structure set forth to explain the complex issues and address them makes this concept work. Agencies might be uncooperative or reluctant to join, but culture and behavior are flexible when provided training and practice for change. Working together removes opportunities for glory-seeking through competition, and SMART can build a reputation for excellence for agencies and individuals so that they will be motivated to join the team.

The creation of SMART is a simple idea to handle multiple complex challenges with proper leadership, interoperability concepts, maritime doctrine, MOUs, agreements, and policies. The implementation of proper leadership concepts is a necessary early step to make decisive and critical decisions. Another step is addressing the funding of SMART in a way that promotes interagency ideas. There is also the critical need to obtain not only the appropriate equipment to make SMART work but the right personnel who can be effective given the procedures and agreements set forth by the LFR Board of Directors. This will drive the concept of SMART as one force with the appropriate structure and guidelines from the agencies involved.

B. FUTURE RESEARCH

The structure of SMART is not only the people who are a part of the organization but the U.S. maritime policies and legislation that will give life to this untested concept. SMART was created from literature on the threats and challenges that first responders across the country have faced but who did not have an outlet to turn to for results. At this

time, there are no multiagency, multidisciplinary teams that house experts across levels and work together to address and resolve threats to maritime security. Before agencies start to unite to consider the goals that are being asked of them, further research might clarify how those roles and responsibilities could be organized.

Future research into stakeholders is needed to determine how to incorporate best practices for future interagency teams like the proposed SMART. Another area for future research could explore whether SMART is a concept that can be adopted by other coastal states to protect their maritime domains. For example, they might look at what agencies and resources exist in their county or region and what trends in current threats their region is facing to determine what resources their SMART would need for success. For example, if they do not have an interagency operability center, such as the Seahawk IOC, their organization would want to create that element alongside SMART. They could form a focus group to discuss leadership from different areas to discuss the problems facing interagency operability specific to their region as well as reach out to local first responders to get a field perspective on how things currently function.

This type of endeavor requires financial support, and the protection of the maritime domain is not just for first responders but for taxpayers as well. Research should be done to calculate the costs and benefits of a program like SMART. The success of SMART depends on the allocation of funding from the U.S. Congress and the State of South Carolina in protecting the people of the Lowcountry. Research to solidify the funds to invest in the initial startup and to sustain funds for each year of the project is vital. It is imperative to have funding not only to start the program but also to keep the project going each year. Funding includes both federal and state contributions and, in some cases, local funds. However, as previously emphasized in this research, when building something new, the organizations must consider an upfront cost that will provide for less redundancy and cost savings in the long term as agencies work together and become more efficient. When they learn to share resources and cooperate with one another so that multiple people are not responding to the same protocols simultaneously, the benefits may outweigh the costs.

Some costs and benefits do not have price tags. For example, further research is needed to determine how interagency cooperation functions to support first responders

dealing with traumatic incidents. For example, active shooters, drowning victim recovery, and mass casualties in a maritime domain are topics concerning the after-care of first responders. Having care for first responders experiencing post-traumatic stress disorder is a need, especially when the attitude of “nothing is going to hurt me” is still prevalent among first responders across the country. Combining agency forces can benefit those who are connected with these events. Perhaps, as the culture of sharing the burden becomes more common, agencies will share their methods of protecting and caring for the labor forces that care for and protect their civilians.

In conclusion, overcoming jurisdictional boundaries is a problem that relies on the attitudes of all the stakeholders—from the civilian taxpayers to policy writers to those on the front lines working daily to prevent and mitigate threats to maritime security. By establishing better organizational leadership and improving interagency operability, maritime security agencies will rebuild trust in their work in the communities they serve. If SMART can earn the support of the leadership, and the administration reaches out vertically and horizontally to investigate and brainstorm where strengths and weaknesses in daily operation lie, it will build trust within and across agencies. Based on that trust, the exact needs of the agencies will take precedence, to the benefit of the safety of the whole community and its constituents.

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APPENDIX. FOCUS GROUP QUESTIONS

- What are the biggest threats to Charleston's port and maritime domain?
- Where are the weaknesses with our ports in Charleston, South Carolina?
- What are the possible shortcomings or problems with the Transportation Worker Identification Credential (TWIC), the Special Maritime Action Response Team (SMART), and the Seahawk Interagency Operation Center (IOC)?
- What are the strengths of TWIC, SMART, the IOC?
- Where will problems arise with the Seahawk IOC concept?
- Will the concept of SMART benefit the ports of Charleston, South Carolina?
- Are there any alternative concepts to that of SMART and Seahawk IOC intel gathering?
- How should funding be appropriated to start SMART in Charleston, South Carolina?
- What modern technologies would help protect the port of Charleston and its maritime domain?
- Who should be in charge of this interagency group (SMART) of first responders?

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