

A Practitioner's Guide to

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# Effective Maritime and Port Security



MICHAEL EDGERTON

WILEY



A PRACTITIONER'S GUIDE TO  
**Effective Maritime and Port Security**



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A JOHN WILEY & SONS, INC., PUBLICATION

Cover design: John Wiley & Sons, Inc.  
Cover photograph: U.S. Coast Guard/Courtesy of Michael Edgerton

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey

Published simultaneously in Canada

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***Library of Congress Cataloging-in-Publication Data:***

Edgerton, Michael, 1961–

A practitioner's guide to effective maritime and port security / Michael Edgerton.

pages cm

Includes index.

ISBN: 978-1-118-09991-9 (cloth)

1. Harbors—Security measures. 2. Shipping—Security measures. 3. Maritime terrorism—Prevention. 4. Harbors—United States—Security measures. 5. Shipping—United States—Security measures. 6. Maritime terrorism—United States—Prevention. I. Title.

VK203.E34 2013

363.28'9—dc 23

2012048236

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

*To my family with love*





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## **Introduction**

This book is designed for practitioners as well as students of maritime security, maritime transportation, and international business. The book provides an overview and analysis of the current factors that affect the security of the maritime operating domain, where shipping, international politics, economics, crime, and terrorism intersect in ways that have far-reaching global impacts. The book also provides a critique of the current approaches to maritime and port security that have been implemented by nations, the private sector, and the international community. The critique is an overview of the current state of maritime and port security as well as an assessment of potential challenges or weaknesses. This book provides actionable recommendations to enhance security while facilitating trade and improving the resilience of companies and governments.

In policy discussions, most of the current critiques of homeland-security measures and programs focus on national-level policy and do not differentiate between modes of transportation or infrastructure domains. This book is specifically focused on the maritime-security environment and proposes measures and approaches that will make international trade and maritime transportation more secure while enhancing efficiencies that can reduce the cost of security for ship operators, customers, and governments.

As part of this approach, the book assesses the business case for security and provides recommendations that are consistent with a focus on efficient, yet effective, security measures. The book is written for the private sector or government practitioner, as well as academic and government policy makers. Because of the inherently international nature of maritime commerce, this book takes an international approach to possible maritime and port security solutions without bias toward or against any approach advocated by a particular nation or organization.

The book is divided into four major sections. The first is the context, which provides an overview of the basic components of the international maritime operating environment. These components include the multinational nature of shipping and multinational drivers in port operations, the criticality of ports from several perspectives, including geopolitics, ports as potential targets, and ports as potential conduits for illicit activity. The contextual section will also cover the issue of port connectivity to other modes of transportation and the intermodal nature and linkages of port and maritime security.

The next section assesses threats to ports in the maritime environment. These threats can take several forms, including state-sponsored threats, conventional state military threats, terrorism, criminal actions, embargo violations, and corruption and lack of transparency. Understanding threats is essential to being able to implement effective maritime security measures.

The third section of the book provides a critique of the current approaches to maritime port security. This critique will look at the United States, the European Union, and other international measures and approaches. Specifically, this section will identify the prism through which authorities make port security policy and some of the factors that affect policy-making and the establishment of current programs and their strengths and weaknesses.

The fourth and final section of the book lays out suggested principles for effective, truly risk-based maritime and port security. These principles focus on the need for security to be more than an objective but in addition a key enabler for legitimate maritime trade. The book reframes port and maritime security as a key component of a multidisciplinary system in which secure, resilient, and efficient trade is the objective.

## ACKNOWLEDGMENTS

This book was made possible only through the excellent editorial guidance and assistance of Virginia Howe and the late Dodge Woodson as well as the outstanding graphics support of Ben Spear. I am indebted to my employer, Good Harbour International, for supporting my efforts. I also need to acknowledge those with whom I served in September 2011, especially Joe Coccia, Mike Ferullo, and Paul Kohl. While they may not agree with everything in this book, we struggled to implement security measures on the fly with little or no guidance. As a result, they taught me some of the key lessons found in the book. This book wouldn't be possible without the support of my colleagues in government and the private sector with whom I've been privileged to work, all of whom have in some way, contributed.

MICHAEL EDGERTON



## Foreword

A century ago when America thought about its security, much of its attention focused on its harbors. A large component of the US Army was then a branch called Coastal Artillery. That organization operated an extensive network of large fortresses that guarded America's harbors. Today those forts are historical relics turned into parks. Yet America today is far more dependent upon what comes in through its ports than it was a century ago. Then America was largely self sufficient; today it relies upon "just in time delivery" of millions of containers. Freight ships and tankers are our lifeline to the world, carrying vastly more than the small fraction of trade that moves by air cargo. Despite that shift in the importance of what comes through our harbors and what moves on ships, until relatively recently maritime security did not figure importantly in America's national security agenda. Not any more.

Today America's security and that of many other nations is intimately entwined with maritime security and governments now are recognizing that. The priority given maritime security has increased significantly in the last decade. Maritime security in the twenty-first century, however, is not a matter of large stone forts on harbor islands. What does comprise modern maritime security is the subject of this timely and comprehensive volume by my friend and colleague Michael Edgerton.

Mike has personal experience with maritime security in the U.S. military and in Department of Homeland Security. Now as a private sector consultant, Mike has examined various approaches to security risk. He has been able to identify leading best practices that could be adopted for worldwide implementation. His methodology reflects globally accepted approaches to risk management and the need for security to contribute to the broader resilience of the maritime transportation system.

In his work on maritime security issues, Mike has developed a sophisticated approach to maritime security that recognizes the role of both government and the private sector. Much of his work has focused on the critical importance of implementing security measures that are complementary to the broader requirement to drive the continued operation and resilience of the maritime domain under all but the most severe threat conditions. This book analyzes the components of the maritime transportation-logistics system, reviews the security measures which have been put in place, and offers a fresh, comprehensive, yet flexible approach to managing maritime security risks without unduly restricting the need for rapid and efficient transportation of goods and people. It is a valuable contribution that governments, corporations, and maritime operators can all benefit by taking to heart its insights and recommendations.

RICHARD CLARKE

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Richard A. Clarke is an internationally recognized expert on security, including homeland security, national security, cyber security, and counterterrorism.

Clarke served the last three Presidents as a senior White House Advisor. Over the course of an unprecedented 11 consecutive years of White House service, he held the titles of:

- Special Assistant to the President for Global Affairs
- National Coordinator for Security and Counterterrorism
- Special Advisor to the President for Cyber Security

Prior to his White House years, Clarke served for 19 years in the Pentagon, the Intelligence Community, and State Department. During the Reagan Administration, he was Deputy Assistant Secretary of State for Intelligence. During the Bush (41) Administration, he was Assistant Secretary of State for Political-Military Affairs and coordinated diplomatic efforts to support the 1990–1991 Gulf War and the subsequent security arrangements. In a Special Report by Foreign Policy Magazine, Clarke was chosen as one of The Top 100 Global Thinkers of 2010.





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PART ONE

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## **The International Maritime Operating Environment**



## **Unique Characteristics of Ports and International Shipping**

### **INTRODUCTION**

International shipping operates in one of the most lightly regulated domains in the world. Huge ships staffed by a minimal number of crewmembers transit the high seas, which are outside of the jurisdiction of any country, and often fly the flags of countries that are largely unable to exert jurisdiction or protect the vessels that are their legal territory. There are about 40,000 ships that engage in international trade. These ships provide over 90 percent of imports to North America and carry about 80 percent of trade worldwide. The total volume of global trade is expected to double over the next two decades, with a particular focus on containerized cargo.

Large-scale commercial maritime trade is characterized by its multinational nature. Over the last 25 to 30 years maritime shipping has become increasingly international in scope and composition. Today, it is not unusual to find a ship that is registered in a country that it has never visited (or cannot visit, as it may not have a coast, such as Luxembourg or Mongolia), owned by a company whose representatives have never set foot on the ship, and operated by an

additional company located in a country unrelated to the country of registration or country of ownership. It would also not be unusual for that same ship to have crewmembers with potentially questionable or unverifiable professional qualifications from several different countries, none of which are from the country of registry. These crewmembers would most likely have been hired through potentially unregulated and corrupt personnel agencies in their home countries. Further, because of the multinational nature of shipping, the maritime security environment throughout the world is inherently interlinked in ways that would not be apparent to those not familiar with shipping or maritime trade. This global interdependence makes security measures in countries that have direct or even indirect trade links with other countries important to security and border agencies, since they reflect the integrity of security on a vessel coming to the nation's port. An example of this is trade between Indonesia and the United States. There are vessels that trade in coal that transit directly

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**FIGURE 1.1**

Foreign ships create temporary borders between countries that normally don't share a border.



between Indonesian courts and ports on the US East Coast. Therefore, the security on the ship is only as good as the security in the Indonesian ports at which it had previously visited. When that ship docks at a US port, there is essentially a temporary land border between Indonesia and the United States, and the effectiveness of Indonesian border and port security is directly and critically important to the United States.

The inherent interdependencies between national and international security regimes will be exacerbated as global maritime trade continues to grow. Despite the recession of 2008 and 2009, analysts expect a rapid increase in maritime trade to continue, perhaps doubling within the next 20 years. This increase, coupled with a philosophy of “just in time delivery,” will place additional stressors on ports involved in maritime trade. The stressors will be a result of a need for delivery to meet timely, accurate schedules as well as aging intermodal infrastructure in which ports are located in congested urban areas where there is limited room for expansion and already crowded roadways and rail tracks. The “just in time delivery” approach is a relatively recent phenomenon that was a result of the need to reduce the costs of storage and warehousing. The result, however, is that transportation delays, regardless of the cause, can be catastrophic.

When studying approaches to maritime and port security, an additional challenge lies in trying to determine what constitutes a port. Unlike airports, which developed more recently and are more likely to have clearly defined borders and less likely to be found in the older, more crowded parts of cities, ports are often hundreds of years old and grew up within cities—or in many cases cities grew up around ports. As a result, port functions often occur outside the formal defined perimeter of a port. These functions include warehousing, the operation of free zones, transshipment points, providers of maintenance and supply services, shipping agents, and shipping-company headquarters. Further, intermodal connections may not be within the formal perimeter ports. Rail hubs, container yards, and trucking centers may also be remote from the port. These issues complicate attempts to understand what constitutes a port as well as jurisdictional boundaries for ports and the maritime domain.

## **THE MULTINATIONAL NATURE OF SHIPPING AND BUSINESS DRIVERS IN PORT OPERATIONS**

Ship and port operations are complex and involve numerous industry and government organizations and entities. These include:

- Vessel registries
- Ship owners
- Ship operators
- Classification societies
- Personnel agencies
- Labor unions
- Shipowner/operator organizations
- Shipping agents
- Cargo brokers
- Third-party logistics carriers
- Port operators
- Terminals
- Port authorities
- Harbormasters
- Customs
- Immigration agencies
- Coast guards
- Police agencies
- Intelligence agencies
- Navies
- Trade associations
- Safety agencies
- Environmental agencies
- Charterers
- Insurers
- Ship chandlers
- Technical repair and maintenance companies