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INTERNATIONAL SEAPOWER SYMPOSIUM

STRONGER MARITIME PARTNERS



REPORT OF THE PROCEEDINGS

20–23 September 2016

U.S. Naval War College | Newport, Rhode Island

TWENTY-SECOND
INTERNATIONAL SEAPOWER SYMPOSIUM

Report of the Proceedings



**INTERNATIONAL
SEAPOWERSYMPOSIUM**
STRONGER MARITIME PARTNERS



2016

TWENTY-SECOND INTERNATIONAL SEAPOWER SYMPOSIUM

Report of the Proceedings
20–23 September 2016

Edited by

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U.S. Naval War College



U.S. NAVAL WAR COLLEGE

NEWPORT, RHODE ISLAND

2017



Attended by naval and coast guard representatives from 106 nations, the International Seapower Symposium provides live translations of the proceedings for all visitors.

Editor's Note

Every attempt has been made by this editor to record a clear and accurate record of the Twenty-Second International Seapower Symposium. Through the use of speaking notes, transcripts, seminar notes, and tape recordings of the speakers or, when necessary, simultaneous translations, the opinions and views of the participating maritime leaders are recorded in this printed text. Slips of grammar, spelling, and wording have been silently corrected and full names and ranks have been added when omitted by the speaker. Square brackets were used to clarify a word or phrase in the text.

A new symposium and editorial policy change is reflected in this volume. In the proceedings of the previous ten symposia, the editor made concerted efforts to identify every speaker by name and nationality. This has continued in this volume, but only for the main presentations. In order to promote a wider discussion of the issues, the organizers announced to participants of this symposium that “[The Chatham House Rule](#)” was to be adopted for the discussion periods. This rule specifies that:

When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.¹

Thus, for the discussion periods transcribed in this volume, the speakers' names and nationalities have been silently omitted and references to the identity of other speakers in the remarks have also been edited out as much as possible while preserving the meaning of the points being made. In these sections, speakers are identified only as “Question,” “Comment,” “Response A,” “Response B,” etc.

The editor acknowledges with great appreciation the valuable support and assistance of many people who contributed to the success of this endeavor. Their fine efforts made my job much easier and brought this project to a timely conclusion.

Newport
February 2017

J.B.H.

1. See more at: <https://www.chathamhouse.org/about/chatham-house-rule#sthash.fqQPlmVf.dpuf>



CHIEF OF NAVAL OPERATIONS

September 20, 2016

Greetings and welcome to beautiful Newport, Rhode Island. I am sincerely honored that you have travelled such great distances to join us for the 22nd International Seapower Symposium (ISS-22). I believe you will find this year's agenda relevant and enlightening, particularly because it is based upon input received from you and our fellow Heads of Navy.

In the days ahead, there will surely be many fruitful conversations and I encourage you to take every advantage of the presence of so many of our partners to discuss issues that are germane to all of us who are dedicated to the safe and open access of the maritime commons. Indeed, as we exchange ideas, discuss operational perspectives, and develop new friendships, we will reinforce the foundations of global stability as we become "Stronger Maritime Partners."

I look forward to what we will all learn as we deepen our dialogue to advance our shared interests.

Sincerely,

J. M. RICHARDSON

Admiral, U.S. Navy

Welcome! Let's have a productive
and fun conference!

Table of Contents

Editor's Note.....	v
Welcome Letter to Delegates.....	vi

Plenary Sessions

	Executive Summary	1
Chapter 1	Welcoming Remarks	
	Rear Admiral Jeffrey A. Harley, U.S. Navy President, U.S. Naval War College	
	Admiral John M. Richardson, U.S. Navy Chief of Naval Operations.....	7
Chapter 2	Regional Naval Symposium Reports	
	Moderated by Professor Thomas Mangold Dean of International Programs, U.S. Naval War College	13
	Indian Ocean Naval Symposium Admiral Sunil Lanba, India	14
	Inter-American Naval Conference Vice Admiral Ron Lloyd, Canada	20
	Western Pacific Naval Symposium Admiral Ade Supandi, Indonesia	24
	Regional Seapower Symposium of the Mediterranean and Black Seas Vice Admiral Valter Girardelli, Italy	28
Chapter 3	An Address	
	The Honorable Ray Mabus Secretary of the Navy	39
Chapter 4	Global Partnerships: A U.S. Coast Guard Perspective	
	Admiral Paul Zukunft Commandant, U.S. Coast Guard	45
Chapter 5	Cooperative Strategies and Interoperability	
	Mr. Chris Trelawny Special Adviser to the Secretary-General of the International Maritime Organization	59

Chapter 6	Panel Discussion One: Cooperative Strategies and Interoperability	
	Moderated by Admiral Christophe Prazuck, France	75
	<i>Panel Members:</i>	
	Vice Admiral Tim Barrett, Australia	
	Admiral Eduardo Leal Ferreira, Brazil	
	Vice Admiral Ibokete Ibas, Nigeria	
	Admiral Muhammad Zakaullah, Pakistan	
Chapter 7	Utilizing International Law to Enhance Transparency	
	Admiral Nirmal K. Verma, Indian Navy (Ret.)	
	CNO Distinguished International Fellow.....	99
Chapter 8	Remarks	
	The Honorable Robert O. Work	
	Deputy Secretary of Defense	121
Chapter 9	Panel Discussion Two: International Norms and Standards	
	Moderated by Rear Admiral Lars Saunes, Norway	131
	<i>Panel Members:</i>	
	Captain Sten Sepper, Estonia	
	Rear Admiral Kofi Faidoo, Ghana	
	Rear Admiral John Martin, New Zealand	
	Rear Admiral Lai Chung Han, Singapore	
	Rear Admiral Lars Saunes, Norway	
Chapter 10	Presentation of the Hattendorf Prize for Distinguished Original Research in Maritime History	
	Awarded to Captain Werner Rahn, German Navy (Ret.)	155
Chapter 11	Cybersecurity’s Role in Maritime Operations	
	Dr. James Lewis	
	Senior Vice President and Program Director, Center for Strategic and International Studies.....	163
Chapter 12	Regional Breakout Group Reports	
	Moderated by Professor Thomas Mangold	
	Dean of International Programs, U.S. Naval War College	181
	Indian Ocean–Gulf of Aden–Arabian Sea–Red Sea Region	
	Vice Admiral Ravi Wijegunaratne, Sri Lanka	181
	Atlantic Ocean	
	Admiral Luís Fragoso, Portugal.....	184

Mediterranean Sea–Black Sea–Caspian Sea Region	
Rear Admiral Mitko Petev, Bulgaria	186
Norwegian Sea–North Sea–Baltic Sea Region	
Rear Admiral Miroslaw Mordel, Poland.....	189

Chapter 13 Closing Remarks

Admiral John M. Richardson, U.S. Navy	
Chief of Naval Operations.....	203

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Appendix A Stronger Maritime Families: Spouse Leadership Course Brief	209
Appendix B List of Delegates	231



Covers are stowed in Spruance Lobby as guests networked during the Chief of Naval Operations Twenty-Second International Seapower Symposium (ISS) at U.S. Naval War College in Newport, Rhode Island. Approximately two-hundred senior officers and civilians from 106 countries, including many of the senior-most officers from those countries' navies and coast guards, attended the biennial event on September 20–23.

Executive Summary

This is a report of the Twenty-Second International Seapower Symposium, attended by heads of navies and coast guards from more than half of the world—the largest gathering of naval leaders in the world. The theme of the symposium was “Stronger Maritime Partners,” and its mission was to “further build the relationships that engender global solutions to complex maritime issues,” as stated by Rear Admiral Jeffrey A. Harley, President of the U.S. Naval War College.

Chapter 1 Welcoming Remarks

“The need for this forum is more urgent than ever,” stated Admiral John M. Richardson, Chief of Naval Operations. He added that “in a world in which the pace of operations is increasing rapidly, it’s tremendously important that we build trust and confidence across our navies.” Moreover, he emphasized, “navies across the globe are key contributors to not only maritime security, but international security,” and “it’s the collaboration of all of us across the entire continuum that assures our collective security and our collective stability.”

Chapter 2 Regional Naval Symposium Reports

To foster greater global maritime cooperation, the following regional symposia and their collaborative efforts were reported.

- Report on Indian Ocean Naval Symposium by Admiral Sunil Lanba, India
- Report on Inter-American Naval Conference by Vice Admiral Ron Lloyd, Canada



The Honorable Ray Mabus, U.S. Secretary of the Navy, provides remarks during the Chief of Naval Operations Twenty-Second International Seapower Symposium.

- Report on Western Pacific Naval Symposium by Admiral Ade Supandi, Indonesia
- Report on Regional Seapower Symposium of the Mediterranean and Black Seas by Vice Admiral Valter Girardelli, Italy

Chapter 3 An Address

The Honorable Ray Mabus, Secretary of the Navy, stated that through partnerships, “we promote our shared goals, things like freedom of navigation and freedom of the seas. Those partnerships are developed here.” He recounted “the significant progress we’ve made together” in the Americas, Africa, Europe, and the Indo-Asia Pacific. He further stated, “The demand for sea services will only increase in the years and decades to come. We are living in a maritime century, and a global network of navies is best suited to deter any crisis.”

Chapter 4 Global Partnerships: A U.S. Coast Guard Perspective

“No one nation can control all of what is at sea,” said Admiral Paul Zukunft, Commandant, U.S. Coast Guard. “I’m talking about piracy, drug-trafficking organizations, and transnational organized crime.” He also noted rising sea levels and stated that illegal, unreported, and unregulated fishing is “on a course for disaster.” To meet such global challenges, Admiral Zukunft said that “it really comes down to partnerships,” reporting that the U.S. Coast Guard interacts with over one hundred nations annually.

Chapter 5 Cooperative Strategies and Interoperability

How to strengthen maritime partnerships and enhance maritime safety and security was the topic addressed by Mr. Chris Trelawny of the UN International Maritime Organization. Mr. Trelawny detailed existing conventions—protecting maritime trade from piracy and armed robbery—as well as those needed for the maritime sector in general. As he stated, “Greater strategic threats include illegal, unregulated, and unreported fishing, drug smuggling, and terrorism against oil and gas installations and transport systems.”

Chapter 6 Panel Discussion on Cooperative Strategies and Interoperability

“We are going to talk about cooperation, interoperability, and maritime security,”

“‘The International Seapower Symposium has representations of naval leadership and policy makers, who collectively, and so significantly, represent the maritime wisdom from nearly all around the globe.’”

—Admiral Sunil Lanba,
India

said the panel’s moderator, Admiral Christophe Prazuck, Chief of Staff of the French Navy.

From Australia’s perspective, “maritime cooperation is indispensable,” said Vice Admiral Tim Barrett, Chief of the Royal Australian Navy. It is a key part of Australia’s defense white paper. “The Australian Navy is committed in the years ahead to working ever more closely with other navies, as we collectively provide maritime security in our region and around the globe.”

“The blue economy . . . is important to all countries,” said Admiral Eduardo Leal Ferreira,

Commander of the Brazilian Navy, referring to the global maritime economy. He also said, “The Brazilian Navy believes that . . . building an environment based on



Nigerian Navy Vice Admiral Ibokete Ibas addresses the complex security challenges of the Gulf of Guinea.

partnership, trust, and information sharing, is the best and maybe the only way to preserve the maritime domain.”

Strategic frameworks have “facilitated cooperative capacity building” in the Gulf of Guinea, said Vice Admiral Ibokete Ibas, Chief of the Naval Staff of the Nigerian Navy. This has included regional maritime exercises, information sharing, joint ship construction, and counterpiracy operations. “All efforts have combined to deliver improved offshore security at a reduced cost,” he noted.

“Countering [piracy] is an excellent example of cooperation,” said Admiral Muhammad Zakaullah, Chief of the Naval Staff of the Pakistan Navy. But piracy is merely dormant, he said, proposing a multipronged strategy to comprehensively eradicate it. He also recommended expanding cooperative forces’ counterpiracy mandate to address other transnational maritime crimes.

Chapter 7 Utilizing International Law to Enhance Transparency

“Adherence to international law lays the foundation for a stable, predictable, and conflict-free world order,” said Admiral Nirmal K. Verma, Indian Navy (Ret.), CNO Distinguished International Fellow. He addressed the influence of international law on maritime security. “Most importantly, it has time-tested, dispute-resolution mechanisms,” he said, providing examples in which adjudications have led to the peaceful resolution of maritime territorial disputes.

Chapter 8 Remarks

The Honorable Robert O. Work, Deputy Secretary of Defense, stated, “One of the key themes of this symposium is maritime operations, in accordance with the norms of international laws . . . Only by ensuring that everyone plays by the same rules can

we avoid the mistakes of the past.” However, he pointed out, “if history is any guide, collaborative, cooperative efforts are never going to completely eliminate the possibility that some countries may try to exert control of their nearby seas.” He added, “We are taking deliberate steps to ensure our Navy can sail wherever it needs to go, fight if necessary, and prevail if attacked.”

Chapter 9 Panel Discussion on International Norms and Standards

“Looking at my fellow panel members, we clearly represent the small navy and small state. That’s a voice that needs to be heard,” said the panel’s moderator, Rear Admiral Lars Saunes, Chief of the Royal Norwegian Navy. From a Norwegian perspective, he added, “we love laws and regulations.”

The perspective of a coastal navy was provided by Captain Sten Sepper, Commander of the Estonian Navy, who stated, “The threat related to geopolitical aspirations of some states never faded completely.”

Standardizing international law for enhanced maritime security in the Gulf of Guinea was a topic addressed by Rear Admiral Kofi Faidoo, Chief of the Naval Staff of the Ghana Navy. He noted that international law, like the United Nations Convention on the Law of the Sea, outlaws piracy but that many gulf states do not have the laws needed for enforcement and prosecution.

“Our interests are supported by the international rules-based order,” stated Rear Admiral John Martin, Chief of the Royal New Zealand Navy. “Like other nations we depend on larger nations adhering to internationally accepted norms and standards of behavior.”

Rear Admiral Chung Han Lai, Chief of the Republic of Singapore Navy, added, “As heads of our respective navies and coast guards, we have . . . the obligation to translate and apply international law and norms to operational arrangements to guide and govern the actions of our maritime forces.”



As Chief of Naval Operations John M. Richardson pointed out in his opening remarks, plenty of time was scheduled into ISS XXII to “mingle and have the conversations that build those relationships that are so important.”

Chapter 10 Presentation of the Hattendorf Prize for Distinguished Original Research in Maritime History

This prize recognizes world-class achievement in original research that contributes to a deeper understanding of the uses of the sea services throughout history. On this occasion, the Hattendorf Prize was presented to Captain Werner Rahn, German Navy (Ret.), for his work on the annotated edition of the *War Diary of the German Naval Staff, 1939–1945*. The prize is named for Professor John Hattendorf, who was also recognized upon his retirement from the U.S. Naval War College, having served since July 1977.

Chapter 11 Cybersecurity’s Role in Maritime Operations

“No network is secure,” stated Dr. James Lewis from the Center for Strategic and International Studies. “There are multiple states pursuing offensive cyber capabilities . . . in the mid-twenties, maybe thirties. Many more are developing defensive capabilities,” he added. “This is what warfare will look like in the future,” Dr. Lewis also stated. “Think of this as a new way to strike, precisely, against certain kinds of targets. The operational effect is really to degrade the performance of commanders, troops, and weapons.”

Chapter 12 Regional Breakout Group Reports

These reports addressed challenges, lessons learned, and actionable items as discussed in groups. The regions and presenters were as follows.

- Indian Ocean, Gulf of Aden, Arabian Sea, Red Sea Region: Presented by Vice Admiral Ravi Wijegunaratne, Sri Lanka
- Atlantic Ocean: Presented by Admiral Luís Fragoso, Portugal
- Mediterranean, Black Sea, and Caspian Sea Region: Presented by Rear Admiral Mitko Petev, Bulgaria
- Norwegian, North Sea, and Baltic Sea Region: Presented by Rear Admiral Mirosław Mordel, Poland
- Caribbean Sea: Presented by Commander Antonette Gorman, Jamaica
- Gulf of Guinea: Presented by Rear Admiral Djakaridja Konaté, Côte d’Ivoire
- Pacific Ocean: Presented by Admiral Ahmad Kamarulzaman, Malaysia

Chapter 13 Closing Remarks

“Our maritime environment is changing as rapidly as ever, is busier than ever, and is becoming more important than ever,” Admiral Richardson said in closing. “That environment also unites us. . . . We’re each responsible to our respective nations for keeping the seas and rivers safe, for keeping sea lines and lines of communication open for trade.” He also reinforced the contributions of Admiral Lanba of India and Admiral Ferreira of Brazil: “It’s a blue century that faces us [and] part of what defines this blue century is an increasingly blue economy.” Admiral Richardson added, “The universal challenge we all share is keeping the maritime secure—it demands solutions.”



The Coast Guard National Security Cutter USCGC Hamilton (WMSL 753), the expeditionary fast transport ship USNS Carson City (EPF 7), and the amphibious transport dock ship Pre-Commissioning Unit John P. Murtha (LPD 26) were on hand for the Chief of Naval Operations Twenty-Second International Seapower Symposium at the U.S. Naval War College in Newport, Rhode Island.

Welcoming Remarks

Rear Admiral Jeffrey A. Harley, U.S. Navy

President, U.S. Naval War College

Admiral John M. Richardson, U.S. Navy

Chief of Naval Operations

Dean Thomas Mangold:

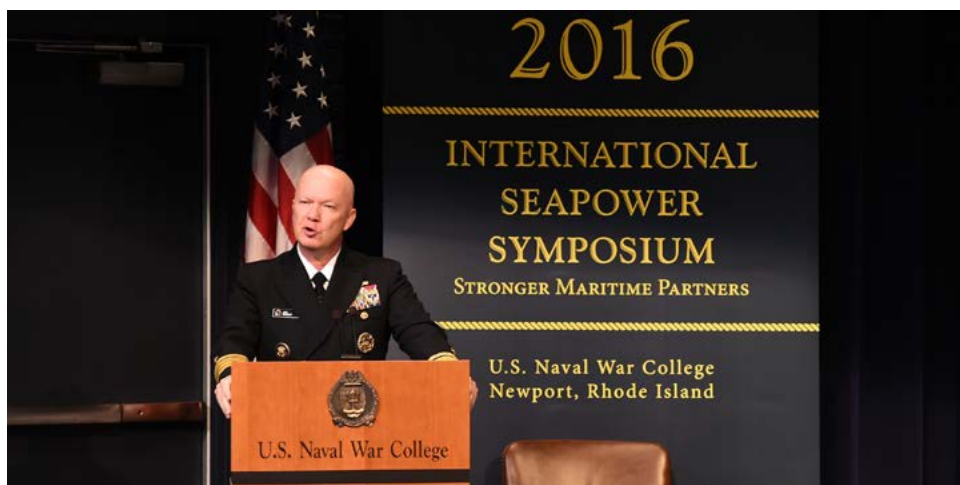
Good morning, Admiral Richardson, Admiral Zukunft, Admiral Harley, distinguished leaders from navies and coast guards from around the world. We are honored to have your presence here in Newport today.

I am Professor Tom Mangold, Dean of International Programs here at the Naval War College. I'm going to be your master of ceremonies for the next several days.

It's a great pleasure for me to introduce the fifty-sixth President of the U.S. Naval War College, Rear Admiral Jeffrey A. Harley.

Rear Admiral Jeffrey A. Harley, United States:

Welcome to Newport, Rhode Island, the United States Naval War College, and the Twenty-Second International Seapower Symposium. The College is honored to provide the setting for this important gathering, and we know that your time here will provide you an opportunity to think and discuss common maritime challenges.



Rear Admiral Jeffrey A. Harley welcomes guests to the Twenty-Second International Seapower Symposium.

We will also seek to further build the relationships that engender global solutions to complex maritime issues.

We're particularly blessed to host the heads of navies and coast guards for more than half of the world. That's a tribute to the significance of this symposium, and also a reflection of its extraordinary potential.

Our College was specifically created to educate and develop future leaders. We are especially proud of the eighty-six delegates in the audience today who are graduates of the [U.S. Naval War College International Programs](#).

Again, it is a deep pleasure and honor to welcome such a distinguished group of naval leaders and coast guard leaders to Newport and to the U.S. Naval War College.

It also gives me great pleasure to introduce our next speaker, the thirty-first Chief of Naval Operations for the United States of America. Please join me in welcoming to the stage Admiral John M. Richardson.

Admiral John M. Richardson, United States:

Thank you, Jeff. Thank you all very much.

We spent time this morning talking about logistics as they affect communication. That is fundamentally why we are here. We are here to communicate with one another.

It's extremely important that we provide as many venues as possible for communication and overcome all barriers, whether language or physical, to allow us to get together in groups that will facilitate discussing a common set of problems, a common set of challenges. I'll speak a little more about that later.

Before I really get going, I want to recognize a few folks.



Admiral John M. Richardson provides introductory remarks at the start of ISS XXII.

First, among us is the senior delegate. The person who has been in office longer than any of us is Superintendent John Mote, the Maritime Police Commander of Kiribati. Since 2003, he's been in office. Congratulations.

Also the delegates from Kiribati, Myanmar, Solomon Islands, and Timor-Leste are here at the International Seapower Symposium for the first time. We want to welcome them.

And then we have the old guard—these nations have been represented at all twenty-two International Seapower Symposiums. These delegations are from Argentina, Australia, Brazil, Canada, Denmark, Finland, France, Germany, Italy, Japan, the Republic of Korea, Netherlands, New Zealand, Spain, Turkey, the United Kingdom, and Uruguay.

“In an increasingly crowded global maritime environment, in a world in which the pace of operations is increasing rapidly, it’s tremendously important that we build trust and confidence across our navies.”

—Admiral John M. Richardson
U.S. Chief of Naval Operations

Thank you for the investment in the International Seapower Symposium, and thank all of you, heads of navies, heads of coast guards, distinguished delegates from around the world.

Thanks also to all of you who brought your spouses. I think that this is a team sport. We all need to work on these challenges together. It was a pleasure to see so many spouses and a couple of children last night.

This is the twenty-second manifestation of the International Seapower Symposium. The first was conducted in 1969, forty-seven years ago. Delegates at that symposium were veterans of World War II. Our delegate was Admiral Gene Fluckey, a submarine commander in World War II. He won the Medal of Honor, our highest military honor for bravery.

It was a very different world then. But even then, as now, our predecessors recognized the need for robust international dialogue and partnerships.

In fact, at the first International Seapower Symposium in 1969, Vice Admiral Colbert, then President of the Naval War College, concluded that, “this is an attempt in an academic setting to bring together seagoing professionals to discuss the challenging maritime posture we all confront together on the seas. Its agenda is broad, and the discussions are far-ranging.”

I couldn't come up with a better description for why we are here today than that. Then, as now, we are here to promote mutual understanding.

Our mission today is no different than it was in 1969. In fact, I would say the need for this forum is more urgent than ever. We are here to build, expand, and strengthen our individual and collective networks of partnerships.

I would propose that in an increasingly crowded global maritime environment, in a world in which the pace of operations is increasing rapidly, it's tremendously important that we build trust and confidence across our navies. It's far better, when a crisis emerges, that we can exercise and mitigate that crisis based on a foundation of trust and a relationship that is mature. For this reason, I think it's especially important that the heads of navies and coast guards are here. These personal relationships are extremely important, and will be as we navigate our way forward.

This year's International Seapower Symposium was designed, from the start, with all of you in mind. This year's theme, "Stronger Maritime Partners," was a collective theme.

We solicited all of you for topics. I wanted to build a symposium that addressed the concerns that you have and that is responsive to the challenges that you see. I thank each of you who provided a topic. We have structured the agenda around those topics that you provided, and we look forward to a vigorous discussion.

I think we would all agree, navies across the globe are key contributors to not only maritime security, but international security, whether you represent a blue-water navy, a regional security exporter, a guardian of a maritime choke point, or a navy focused on coastal security. It's the collaboration of all of us across the entire continuum that assures our collective security and our collective stability.

This is your conference. We've taken your submissions into account as we structured keynote addresses, panels, and topics such as cooperative maritime operations, cyber security, and the importance of international norms and standards.

At one level, we have the formal agenda. But I think we would all agree that there's tremendous benefit from this conference operating at another level, a more informal level. Since we are here together, we have the chance to meet one-on-one. We've provided plenty of opportunities and venues for us to get together and have those one-on-one conversations that are sometimes difficult because of our schedules. We've built a lot of what we call "white space"—unscheduled time into the conference so that we can mingle and have the conversations that build those relationships that are so important.

While we are here executing our agenda, our spouses are also executing an agenda, a substantive program designed to explore topics like family support and family readiness.

Looking forward—we're always looking forward in our business—part of your package included a survey form to allow you to grade us as we go. It's our report

"Navies across the globe are key contributors to not only maritime security, but international security. . . . It's the collaboration of all of us across the entire continuum that assures our collective security and our collective stability."

—Admiral John M. Richardson
U.S. Chief of Naval Operations

card for the Seapower Symposium. We'll be very responsive to your input. If we can react and change something that needs to be changed now, by all means, we'll do that. Please let us know if you have any need that we can fulfill.

I'm also very interested in your thoughts about how we can make the symposium stronger for the next iteration, two years from now. If you have any of those ideas, I'd ask you to jot them down as you go. Please keep a list as these ideas come to

you. We'll collect them at the end of the symposium. We'll make the next iteration even more substantial.

We spent a lot of time talking about communications and how to facilitate communications. Everybody here has a lot to learn from one another. I encourage you to share your perspectives. Please speak out. No matter what part of the world you come from, we've got something to learn from you, and I ask you to participate. We have so much more in common than we have differences, just by virtue of the fact

that we operate in the maritime environment. We are dedicated to international rules, which allow all of us to prosper on a level playing field.

As a matter of welcoming you, I want to reinforce that I see this as an invaluable opportunity for all of us to enhance our global situational awareness, strengthen our existing relationships between our navies, strengthen our relationships personally between chiefs of navies and coast guards, and build new relationships when we see the opportunity.

As Admiral Harley said, it's a homecoming for many of you. Many of you have been here in Newport before, either for the [Naval Staff College](#) or the [Naval Command College](#). Welcome back to Newport for all who are returning from your earlier studies.

I'll keep my remarks short. Please take advantage of all the opportunity that this venue provides. Welcome to the International Seapower Symposium. And I thank you all for taking time from your busy schedules to be here.

Regional Naval Symposium Reports

Moderated by Professor Thomas Mangold

Dean of International Programs, U.S. Naval War College

Dean Thomas Mangold:

We are very privileged to receive reports on four regional naval symposiums. As we all have discovered during our professional travels abroad, there are many outstanding collaborative efforts going on among our naval partners around the globe that, regrettably, we never hear about. Most go unheralded outside of their own regions, and we fail to repeat the benefits of their pioneering work.

This morning, we are taking an important step to foster greater global maritime cooperation by sharing our regional experiences, comparing notes, and improving our ability to operate together during times of crisis.

So, we have four regional reports. I'll get started by introducing our first speaker, Admiral Sunil Lanba, the Chief of the Naval Staff, Indian Navy. Admiral Lanba assumed command of the Indian Navy in May of 2016, after serving as Flag Officer Commanding in Chief of the Southern and Western Naval Commands. His nearly four decades of experience include command at sea and ashore, including command of a mine countermeasures vessel, the indigenous *Leander-class* frigate, a *Kashin-class* destroyer and the indigenous *Delhi-class* destroyer. He was also the executive officer of the aircraft carrier INS *Vikrant* (R 22).



Speakers (L–R): Vice Admiral Valter Girardelli, Admiral Sunil Lanba, Vice Admiral Ron Lloyd, and Admiral Ade Supandi, welcomed by Admiral John M. Richardson, prepare to discuss the regional symposium reports.

REPORT ON THE INDIAN OCEAN NAVAL SYMPOSIUM

Admiral Sunil Lanba, India:

The International Seapower Symposium has representatives of naval leadership and policy makers, who collectively, and so significantly, represent the maritime wisdom from nearly all around the globe.

Chief of Naval Operations, Admiral Richardson; President of Naval War College, Admiral Harley; fellow heads of navies; heads of coast guards; heads of maritime security agencies; distinguished guests; and ladies and gentlemen, it is indeed a proud privilege for me to present here and share my thoughts with this august gathering.

This century, without doubt, is a century of the sea, the great common, the maritime of all mankind. The opportunities the sea offer us, make it incumbent upon us seafarers to coordinate, not only to reap the benefits but also to collectively address emergent challenges. It is indeed topical that this year's International Seapower Symposium is focusing on cooperative maritime operations, strategies and challenges to interoperability.

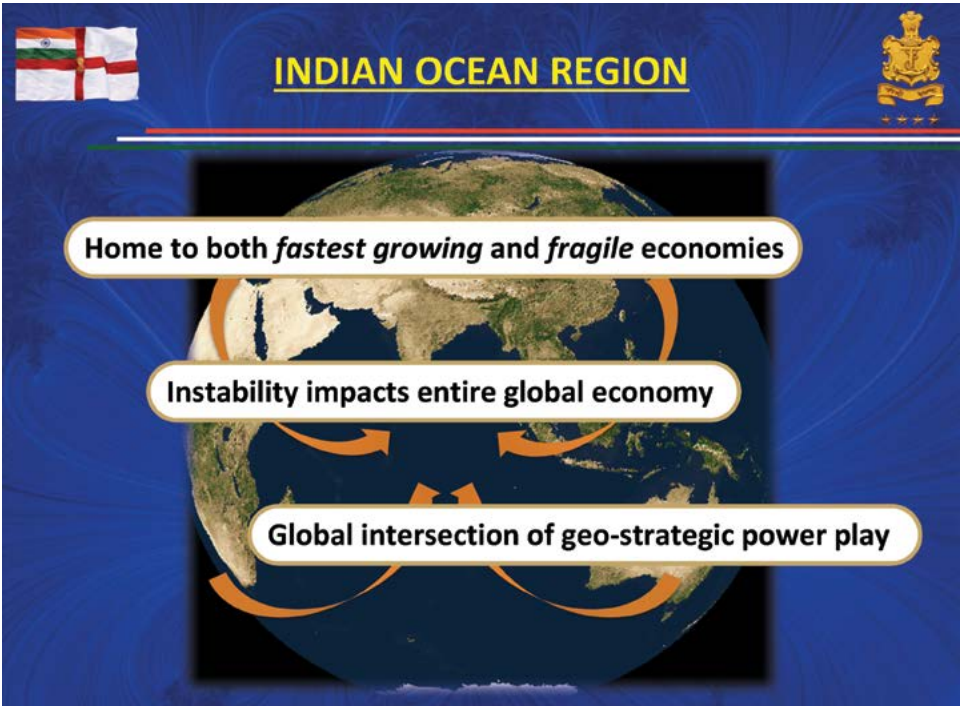
Before I set course and present my report, it would be appropriate to recollect memories of a great visionary, whose writings have inspired generations of maritime thinkers and practitioners. I refer to the great Alfred Thayer Mahan, who was twice President of the Naval War College and whose monumental works have shaped the minds of individuals, navies, and nations over centuries. This being the twenty-first century, the sea and oceans assume greater significance, as events unfold, revealing either a collaborative bond amongst nations or a confrontational approach.

Unique Characteristics of the Indian Ocean Region (IOR) and Its Challenges. The vast, resource-rich expanse of the IOR has several opportunities, threats, and instabilities. The threats posed by malevolent, nonstate actors, natural calamities, and manmade disasters render national boundaries irrelevant. While there may be many numerous regional vulnerabilities, like-minded nations are stepping forward and increasingly agreeing to capitalize on collective regional strengths. Over the last two decades the characteristics, features, and challenges have rapidly transformed the IOR from being on the wings of international politics to the global center stage.

With the wheels of economy turning furiously, the IOR is home to some of the world's fastest-growing economies, as well as some very fragile economies. It not only represents the global energy supply but also a region of growing energy demand. The interdependence of trade is such that if there is any impediment to the free movement of oil and trade to the IOR, it will have impact not just on the region but the entire global economy. The IOR has, thus, emerged as a major global intersection for geostrategic power play, economics, and resource competition. Opportunities and challenges are close to the prophetic words of Mahan for the twenty-first century and Indian Ocean dynamics.

Consequently, safety, security, and stability of the Indian Ocean are absolutely paramount for the well-being and prosperity of all nations. As a natural extension to this aspect, the IOR continues to be a favorite hunting ground for extraregional interests.

As things stand today, barring a few exceptions, most Indian Ocean states do not have naval and maritime law-enforcement capability commensurate to the vast



Because of its unique characteristics, the safety, security, and stability of the IOR are paramount for the well-being and prosperity of all nations.

maritime zones under their jurisdiction. Geographically, the prevalent environment of the Indian Ocean provides ample space for multispectrum challenges to proliferate seaward and adversely impact the interests and well-being of all regional states. While the individual maritime capabilities of many nations in the Indian Ocean littorals are limited, the regional aggregate amounts to a sizable capacity. Moreover, in the context of diversity and challenges that exist in the IOR, there are three important aspects that stand out:

- First is a high degree of commonality in the challenges facing most Indian Ocean littoral nations.
- Second, there is a strong maritime element to most challenges, and also to their solutions.
- Third and most importantly, there has always been a broad consensus that it is not only possible but, in fact, essential for Indian Ocean littoral nations to cooperate and collaborate in the maritime arena, to address challenges collectively, and to move forward.

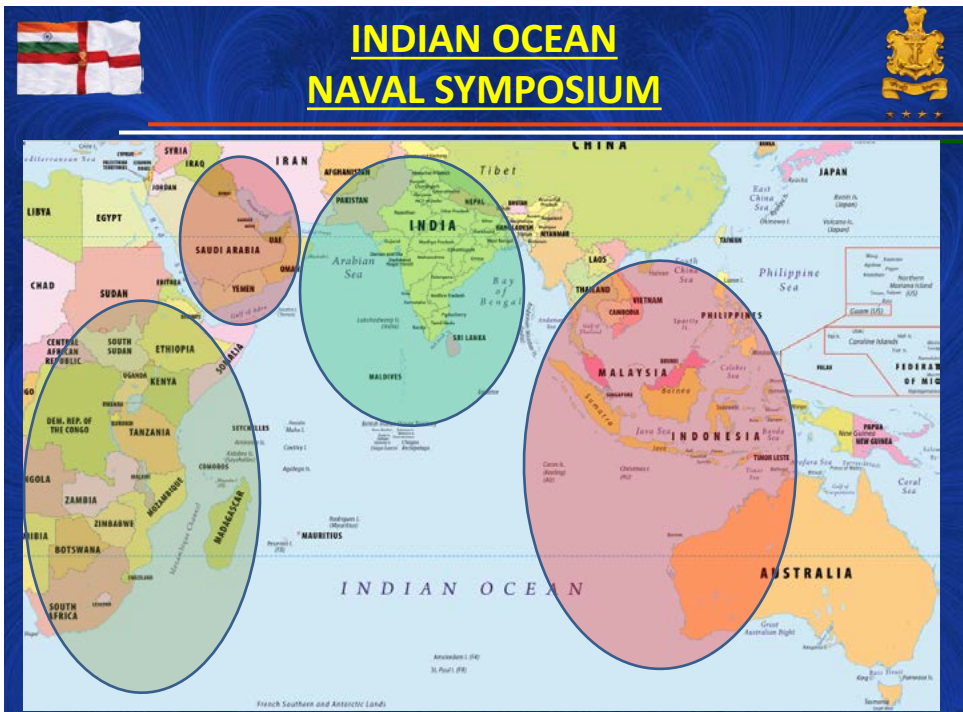
The Indian Ocean Naval Symposium. India and the Indian Navy have always sought opportunities that seek to enable a safe, tranquil, and secure Indian Ocean through cooperative mechanisms. Recognizing the common regional threat, that could only be addressed through a common, cooperative, and consensual approach toward maritime security, the Indian Navy took the lead in setting up a regional forum, where the chiefs of naval littoral states of the IOR could meet regularly, and promote mutual beneficial means, methods, and mechanisms towards constructive engagement in the maritime domain. Thus, the Indian Ocean Naval Symposium (IONS) was founded in

February 2008, at New Delhi, as the twenty-first century's first significant international maritime security initiative, to address multiple challenges across the region, through a unified approach that capitalizes on the combined maritime potential of our region.

The **Indian Ocean Naval Symposium** endeavors to generate a flow of information between naval professionals for a common understanding on maritime issues. Founding members envisaged IONS as a consultative and cooperative construct, aimed toward strengthening maritime security and collectively confronting common threats within the maritime expanse of the Indian Ocean. These are threats that often emanate from outside our nation states, manifesting themselves as non-state entities and showing disregard and contempt for national boundaries. These must be dealt with in a transnational manner to be effectively countered.

Our thought process, from the very beginning, has hinged on the principles of equality and consensus-building, and focused on regional problems of maritime security, as opposed to purely bilateral ones. Accordingly, the Indian Ocean Naval Symposium has been designed to function in an open, inclusive, consultative, cooperative, and consensual basis. In particular, respect for sovereignty, territorial integrity, political independence, noninterference in internal affairs, peaceful coexistence, and mutual benefit remain the guiding rules.

Subregions and Participants. Regional inclusiveness has been central to the model of IONS. Every navy that has been constituted by a nation state with permanently held territories that abut or lie within the Indian Ocean can be a member. There are thirty-five littoral states in the IOR, which have been grouped into four subregions: South Asian, West Asian, East African, and Southeast Asian littorals and Australia. The chairmanship



The Indian Ocean Naval Symposium is composed of four subregions; chairmanship rotates every two years within these subregions.

is designed to rotate every two years within the four subgroups. This ensures that every subregion is able to receive the focus that it deserves.

Since its 2008 inaugural in New Delhi, IONS has accomplished its first task of building confidence in the regional framework, and is contributing to peace and civility in the region. The 2010 IONS gathering in United Arab Emirates was very encouraging towards consolidating the construct. Cape Town in South Africa witnessed enhanced professional discourse and participation during IONS 2012 and the members collectively adopted the [Charter of Business](#) during IONS 2014 in Perth. Out of the thirty-five nations in the IOR, twenty-three nations have ratified the Charter of Business and are members.

The seven observers to the Indian Ocean Naval Symposium include China, Germany, Japan, Madagascar, Malaysia, Russia, and Spain. It is indeed heartening that a number of other extraregional maritime nations are seeking observer status. The observer status for Netherlands and Italy is being promulgated, and we are actively looking at our rules to enable increased participation in IONS.

The conclaves of chiefs have been a very vibrant, professional, focused, and friendly part of this forum. The warm bonhomie, bonding, natural understanding, and mutual respect among the chiefs are evidenced by the strides that IONS has taken in a short time.

Working Groups. The chairmanship of the biannual construct has already traveled through the four designated subregions, and is now headed to Iran in 2018. In the intervening period, preparatory workshops are conducted, which provide the members a platform to formulate the agenda for the symposium. There are also



INDIAN OCEAN NAVAL SYMPOSIUM

MEMBERS AND OBSERVERS



23 members, 7 observers and growing

<u>MEMBERS</u>			<u>OBSERVERS</u>
Australia	Oman	Mauritius	China
Bangladesh	Pakistan	Mozambique	Germany
France	Saudi Arabia	Myanmar	Japan
India	Seychelles	Thailand	Madagascar
Indonesia	Singapore	Timor Leste	Malaysia
Iran	South Africa	UAE	Russia
Kenya	Sri Lanka	Maldives	Spain
UK	Tanzania		

Netherlands and Italy to obtain Observer status soon

Of the thirty-five nations in the IOR, twenty-three have ratified the Charter of Business and are members of IONS.

seminars organized by member nations on topical issues, which provide another avenue to channel the regional energies toward greater synergy.

The IONS open-essay competition is very popular among junior and mid-level officers. This has, indeed, been an unequivocal success. It has not only provided a platform for fresh ideas on cooperative mechanisms being put forth but also is shaping young leaders toward the benefit of cooperative engagement. It is just a matter of time before these young leaders of their navies and maritime agencies will meet as buddies and resolve issues over a chat session.

While much has been achieved, it is never enough. The Indian Ocean Naval Symposium established three dedicated working groups:

- Counterpiracy, chaired by South Africa and Tanzania
- Humanitarian assistance/disaster relief (HA/DR), chaired by India
- Information sharing and interoperability, chaired by Pakistan

The working groups are progressing on discussions for formulating standing operating procedures for coordinated responses and mechanisms.

Fostering Partnership. The fifth biannual assembly of IONS was held at the beginning of this year, under the aegis of the Bangladesh Navy, the current chair. It explored the broad theme “Fostering Partnership in the IOR: Charting Courses for Maritime Cooperative Engagement.” The theme is centered on the growing belief that maritime security can only be achieved by extensive cooperation and collaboration among littoral navies that share common views of international law and norms. The deliberation focused on highlighting the roles of cooperative security mechanisms and architectures to meet the broad range of challenges, especially in a complex and rapidly changing strategic environment.

The members evolved the concept of an [\[IONS\] Multilateral Maritime Search and Rescue Exercise](#) (IMMSAREX) during IONS 2016. All member states are now actively working toward planning and conducting this exercise in 2017, under the arrangement of the Bangladesh Navy.

IONS 2016 was a grand success. It helped identify tangible deliverables, an outcome of cooperation and collaboration among member nations. The last session of IONS—at Dhaka in January this year—reviewed the Charter of Business with input from all members, after the experience of two years.

The Indian Ocean Naval Symposium, within a short gestation period of eight years, has demonstrated that every diverse view can be accommodated on board. When it comes to securing mutual interests, the platform affords the chance to be equal partners. Since the inception of this platform, knowledge and understanding of maritime issues and the need for cooperation have increased exponentially.

In the perspective of the Indian Navy, as enunciated in the Indian Maritime Security Strategy, entitled *Ensuring Secure Seas*, there is a need to focus on developing a favorable and positive maritime security environment.

Areas of Cooperation. While there are several areas in which cooperative efforts can be initiated, depending on the region and the challenges faced, I would like to highlight three specific areas, which can help all navies and cooperative constructs alike:

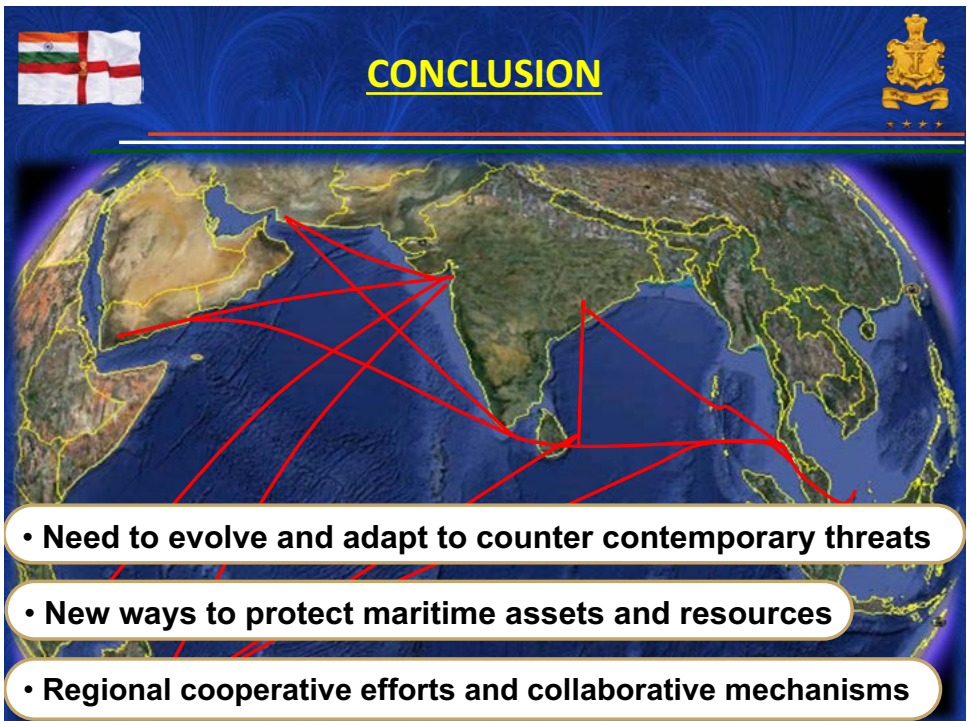
- *Information sharing:* Effective and real-time information flow to develop a robust information grid is the first prerequisite to addressing any maritime challenge. A shared information grid would provide for exchange of mari-

time domain awareness, meteorological, seismic, radar, communication, and other data that can help focus and deal with severe events or disasters.

- *Humanitarian assistance and disaster relief:* HA/DR merits our immediate attention. Several nations have initiated measures, independently, to strengthen their ability to respond swiftly. It is vital that we pool this experience and these capabilities. Every subregion can look at setting up a coordination center, which can ride on the information grid I spoke about earlier.
- *Conduct of maritime security operations:* Cooperation by navies of the world on countering piracy has been met with significant success in curbing the threat in the Gulf of Aden and off [the coast of] Somalia. Challenges of illegal, unreported, and unregulated (IUU) fishing, maritime terrorism, and marine trafficking are some challenges that can be tackled by a cooperative effort.

Adapt, Adopt New Ways, and Collaborate. Before I conclude, I will reiterate that it is incumbent on navies of the region to evolve and adapt to counter contemporary threats, even as we prepare for the future challenges. In addition to reorienting their posture and profile, navies will have to find new ways to protect maritime assets and resources, while optimizing operations in a rapidly changing environment.

In India's perspective, threats and challenges in the maritime domain necessitate regional cooperative efforts and collaborative mechanisms, with equal partnership for all. It is imperative that nations and the maritime forces, which are all stakeholders of peace and tranquility of the sea, come together and play their part toward shaping a positive maritime environment.



CONCLUSION

- Need to evolve and adapt to counter contemporary threats
- New ways to protect maritime assets and resources
- Regional cooperative efforts and collaborative mechanisms

The Indian Ocean Naval Symposium continues to reaffirm the strength of cooperative action.

Security and stability in the maritime domain are the shared responsibilities of all coastal states. The Indian Ocean Naval Symposium has once again reaffirmed the strength of cooperative action. It is therefore vital that we continue to nurture such mechanisms that contribute to peace and stability in the maritime domain.

Dean Thomas Mangold:

Thank you, Admiral.

I'd like to introduce our second speaker, Vice Admiral Ronald Lloyd, Commander of the Royal Canadian Navy, who will report on the Inter-American Naval Conference.

Vice Admiral Lloyd assumed command of the Royal Canadian Navy in June 2016, after serving nearly three years as the Deputy Commander. Vice Admiral Lloyd has deployed around the world numerous times in his illustrious naval career. He has navigated a multitude of Her Majesty's Canadian Ships (HMCSs) and served as navigation instructor.

He was a combat officer on board HMCS *Calgary* (FFH 335) and served as the executive officer on board HMCS *Ottawa* (FFH 341). He was a commanding officer of HMCS *Charlottetown* (FFH 339) and HMCS *Algonquin* (DDG 283) and spent time as commander of both the Atlantic and Pacific fleets, as well as held various positions at the National Defense Headquarters.

REPORT ON THE INTER-AMERICAN NAVAL CONFERENCE

Vice Admiral Ron Lloyd, Canada

I'd like to begin by thanking Admiral Richardson and the United States Navy for your exceptional hospitality in hosting the International Seapower Symposium. Thank you ever so kindly, and to Admiral Harley. An ideal venue for us to all gather and speak. It's a real pleasure and privilege to present an update on the [Inter-American Naval Conference](#).

As we all know, and as Admiral Richardson reinforced in his opening comments, it is vitally important to continue to develop and strengthen relationships with like-minded navies and coast guards, and to develop a level of trust that can only be fully achieved through direct personal engagement. As naval leaders, we have a collective responsibility to ensure the lawful and responsible use of the oceans, not only in our own operating areas, but worldwide.

Conference Purpose, Organization, and Functioning. Today it is my pleasure to provide a short update on the status of naval cooperation in the Americas and, more specifically, a summary of the recent Inter-American Naval Conference—or IANC—a group composed of the heads of navies of nineteen countries in the Americas.

The IANC has met biennially since 1960 to discuss how best we can work together to face the challenges of our current and future maritime operating environments. The Royal Canadian Navy is proud to currently serve as the general secretariat for this important forum and hosted the twenty-seventh and most recent gathering in Halifax, Nova Scotia, in June of this year. This was the first time the conference was held in Canada.



IANC Member Navies



The Inter-American Naval Conference held its twenty-seventh forum in 2016.

The hosting nation rotates between member navies, with the host nation designating a secretary general and standing up an administrative secretariat for the two-year term. These general secretariat duties will officially be passed to Colombia later this year, the next hosting nation.

The Inter-American Naval Conference is an ideal forum for direct, personal engagement among naval leaders, both in session and with corresponding evening programs. At the recent meeting in Halifax, fourteen navies and two observer organizations were in attendance. Unique to IANC is the presence of two permanent observer organizations, the [Inter-American Defense Board](#) and the [Inter-American Naval Telecommunications Network](#).

The Inter-American Defense Board, located in Washington, D.C., was established in 1942. With twenty-eight member states and a rotating three-star chairman, the Inter-American Defense Board serves as a key interlocutor between services. The chairman, or an appropriate delegate from the Inter-American Defense Board, also attends the corresponding [Conference of American Armies](#) and the Air Forces' [System of Cooperation Among the American Air Forces](#). The chairman of the Inter-American Defense Board is a focal point for defense engagement and cooperation in the hemisphere and, in this role, attends the important [Conference of the Defense Ministers of the Americas](#), which also occurs every two years. This conference, occurring next month in Trinidad and Tobago, is attended by ministers of defense, chiefs of defense, and senior national policy advisors and staffs.

The Inter-American Naval Telecommunications Network is the only permanent, multinational, navy-specific organization in the Americas. Its role is to provide

advisory and administrative support to the hemispheric navies. It was stood up under the direction of the Inter-American Naval Conference's Council of Delegates in 1976. Based in Jacksonville, Florida, the Network has a multinational staff and contributes to the development of physical and web-based tools that enable our navies to communicate, directly, both ashore and at sea.

Recognizing the significant challenges that face the nations of the hemisphere, over time it became necessary to stand up several conferences. The work of these bodies becomes increasingly important as we respond to known or anticipated defense and security threats in the region. As we all know, it is far more productive to address these issues collectively, as neighbors.

The Inter-American Naval Conference's secretariat and the Council of Delegates monitor the activities of these specialized conferences. They are quick to adjust to their taskings, or mandates, to the changing demands in naval technology and innovation and the increasingly critical threat to our communications and cyber networks.

Twenty-Seventh Inter-American Naval Conference. For the twenty-seventh IANC in Halifax, the member navies selected "The Future Maritime Operating Environment" as the central theme. Delegate presentations and discussions dealt with a range of topics, including resource exploitation, the [United Nations Convention on Law of the Sea](#), the changing balance of power in global geopolitics, technology, and the costs and benefits of interoperability.

I was asked to provide a few key points on the current state of regional naval cooperation in the Americas. The Inter-American Naval Telecommunication Network, one of the two observer organizations I mentioned earlier, is a key piece of this collaboration. Through its dedicated data communication networks and an ambitious exercise program, the network is an ongoing success story. With a permanent staff,





IANC Specialized Conferences

Biennial specialized conferences that report to the IANC General Secretariat:

- Naval Telecommunications
- Interoperability
- Directors of Intelligence
- Science, Technology and Innovation
- Cyber Defense (new)
- Helicopter Operations (HOSTAC)
- Naval Control of Shipping



Delegate presentations at the Twenty-Seventh IANC encompassed a wide range of topics.

its stability ensures the navies of the Americas continue to develop and utilize common communication tools with common standards.

Naturally, the most tactical of our regional cooperation activities occurs within the scope of regional exercises and operations. The navies of the Americas are all invited to participate in several large-scale, recurring naval exercises in the region, such as **PANAMAX**, designed to practice methods of protecting the safe passage of commercial traffic through the Panama Canal. Other activities include **EXERCISES UNITAS** and **TRADEWINDS**, the latter focused on countering transnational organized crime and practicing humanitarian assistance and disaster-response measures.

Regional cooperation also occurs at sea while our multinational forces are deployed under the coordination of the **Joint Interagency Task Force South**. It conducts detection, monitoring, and interdiction missions throughout the Caribbean and Eastern Pacific of Central America to counter the flow of illicit narcotics in the hemisphere.

As maritime practitioners, we are all aware of the **Code for Unplanned Encounters at Sea**, or CUES, that was developed by the Western Pacific Naval Symposium and ratified in 2014. Following an open and frank discussion at the Halifax conference in June, the Council of Delegates voted in favor of endorsing CUES and directed that it be employed by member navies without delay. As the Secretary for the Inter-American Naval Conference, [I had] the Royal Canadian Navy formally advise the Indonesian Navy, [which provides] the current Secretary General of the Western Pacific Naval Symposium, of this initiative.





Central Themes for 27th IANAC

The Future Maritime Operating Environment

- Global maritime commons – fisheries, resource exploitation, undersea communications networks (cables), future trends in commercial shipping and maritime traffic, maritime trade routes, chokepoints and ports, climate change, submarine proliferation;
- UNCLOS and the recognition of maritime zones including sovereign territory and EEZs;
- Organized crime, terrorism and piracy;
- Impact of a changing global balance of power and geopolitics;
- Roles of navies, constabulary missions, capacity building, disaster response, warfighting, naval diplomacy;
- Impact of technology on naval force development; and,
- Costs and benefits of interoperability and burden sharing





The Twenty-Seventh IANAC report (Spanish) is available on the All Partner Access Network.

The Council of Delegates also established a process to allow other navies of the Americas to seek observer status within IANC, further enhancing our collective approach to hemispheric defense and security.

As Commander of the Royal Canadian Navy, I was extremely pleased with the outcome of the Inter-American Naval Conference 2016.

We Can't Surge Trust. As flag officers, we all appreciate that facing each other across the table is vital to fostering the cooperation and relationships we need in support of our own national objectives. It's not only the plenary sessions that pay dividends. Bilateral meetings and local social activities embedded into the programs are where some of the most important and productive discussions occur, and where some of the best relationships are established.

For Canada—a nation with a small navy—these multilateral defense institutions are important components of our overall operational ambitions, throughout the global maritime commons. In addition, the relationships we build through forums like Inter-American Naval Conference can lead to collaborative agreements when operational needs arise.

For example, the Royal Canadian Navy has established an ongoing agreement with the Armada de Chile for the temporary use of one of its replenishment ships while we wait delivery of our future supply ships. By purposely building this relationship in advance with Chile, with our trusted international partner, Canada had already established a familiar connection when the need arose. As we all know, and as repeatedly said, we can't surge trust.

The Royal Canadian Navy will continue to be an active participant in the Inter-American Naval Conference as well as in other multinational forums, such as the Western Pacific Naval Symposium. We consider these organizations to be valuable tools for developing closer relationships in our hemisphere and beyond.

Thank you for your attention.

Dean Thomas Mangold:

Thank you, Admiral.

Our third speaker is Admiral Ade Supandi, Chief of the Indonesian Navy. He will report on the Western Pacific Naval Symposium (WPNS).

He assumed command of the Indonesian Navy in December 2014, after being the Chief of the General Staff. He has held command at all levels, including Commander of the Eastern Fleet, and Governor of the Indonesian Naval Academy.

He has graduated from the Indonesian Naval Academy, the Indonesian Command Staff College, the Indonesian Joint Command Staff College, and the National Resilience Institute.

REPORT ON THE WESTERN PACIFIC NAVAL SYMPOSIUM

Admiral Ade Supandi, Indonesia:

Distinguished audience, ladies and gentlemen. Let me begin by thanking our host, Admiral Richardson, and the International Seapower Symposium committee for the kind invitation and the opportunity to deliver remarks as the current chairman of the Western Pacific Naval Symposium.

*Changing strategic landscape brings more **complex** maritime security challenges*



Today's threats to maritime security are much more complex compared to those of 1988, when WPNS held its first meeting.

I will touch on recent progress that has been made in the [Western Pacific Naval Symposium](#) and its future challenges.

Progress. Two years ago, WPNS members agreed to endorse the Code for Unplanned Encounters at Sea, better known as CUES. It is a concrete form of naval partnership in application. It provides common procedures and communication signals for deconfliction and coordination between WPNS's naval units.

In the last Western Pacific Naval Symposium, all members agreed that this document should be continuously evaluated and improved by adopting lessons learned during its use in operations. The symposium agreed to establish a steering committee that will receive feedback so as to identify what should be done to improve CUES and keep it current. This is an indication of the effort by the WPNS to maintain relevancy in the future.

Also in this year's Western Pacific Naval Symposium, the Royal Navy and the Colombian Navy were granted observer status. This decision reflects the realization that the contemporary maritime security landscape has become even more connected, and that extraregional navies with interests, presence, and knowledge of the Western Pacific region are welcome as valuable partners to the WPNS.

In a globalized world, the sea continues to be the avenue of communication and trade, but also with potential threats and dangers. The only option for us is to work together with partners from other regions. WPNS is enthusiastic about the possibility of expanding the observer status to other navies as well.

The third achievement that I would like to bring up is the increase in practical activities. Concepts need to be elaborated and put into practice. For the coming two years, the Western Pacific Naval Symposium has a schedule of practical events, including working groups and exercises hosted by member navies.

Allow me to highlight an example, which is the Junior Officer Interaction Program. It aims to establish networking among junior officers. I believe that this is vital to building partnership—exposing a younger generation to the experience of

working together with partners from different navies. This will instill an awareness that we are bound together by the sea and need to work together.

Future Challenges. Despite the various achievements of the Western Pacific Naval Symposium, the way ahead brings new challenges.

When WPNS held its first meeting in 1988, the strategic landscape was quite different from today. The concept of maritime security was dominated by the potential of military conflicts, and naval cooperation was limited to traditional allies.

“The sea brings us together, and so should our navies.”

—Admiral Ade Supandi,
Indonesia

Today, we are living in a world where the threat to maritime security is much more complex. Moreover, the Pacific continuously increases in importance, and challenges facing WPNS navies are becoming more pronounced.

The primary challenges that WPNS faces in the future are the need to increase inclusiveness, to expand its cooperation, and to maintain its currency.

Cooperating with Non-naval Partners. The first challenge for the Western Pacific Naval Symposium is to extend cooperation with non-naval institutions. One of the defining characteristics of the contemporary maritime security environment is the complex interaction of different types of security threats. This means that naval forces need to work more closely with non-naval agencies, specifically private and nongovernmental organizations.

The scope of cooperation should include exchange of information and other practical activities. It should also include development of new inclusive maritime security strategies that can balance national interests and sovereignty with common interests and goals.

WPNS provides an excellent framework to extend cooperation between naval forces and other maritime security stakeholders.



Going forward, WPNS must meet several challenges, including expanding cooperation, increasing inclusiveness, and maintaining its currency.

Engaging Extraregional Partners. Complex challenges also mean that the Western Pacific Naval Symposium needs to engage more extraregional partners. The sea has always been the great avenue that connects distant lands. The increase in capacity and dependence on shipping means that the sea is the common lifeline of our nations. The sea brings us together, and so should our navies.

The Western Pacific Naval Symposium charter states that extraregional navies with significant interests in the Western Pacific are welcome to become observers. So, a challenge for the Western Pacific Naval Symposium is to open its door wider to partners from outside its region.

Call for Innovation. The third and final challenge for WPNS in the future is the need to avoid stagnation and maintain currency in a dynamic world. As a forum conceived almost three decades ago, the Western Pacific Naval Symposium has proven to be resilient and navigated through changes in the past. Thus, the challenge for WPNS is to continue avoiding stagnation, which calls for innovation.

As an example, last April the Indonesian Navy hosted the Multilateral Naval Exercise **KOMODO**, concurrently with the Western Pacific Naval Symposium in Padang and the **International Fleet Review**. The event brought together not only WPNS members but also Indian Ocean Naval Symposium members.

The innovation to conduct several events together, in a non-war-fighting exercise, allowed us to overcome sensitivities regarding the use of naval forces in combat-oriented exercises and bring together [greater] numbers and diversity of participants.

Adaptability and Spirit. The Western Pacific Naval Symposium continues to be an important naval cooperation framework after almost thirty years. I believe that it can serve as an excellent example for the theme of our symposium today, as a maritime partnership that actually works. However, the dynamic changes in global maritime security environment challenge WPNS to be more inclusive, expand its geographic reach, and continuously come up with new initiatives to stay current in a rapidly changing world. I am confident that the Western Pacific Naval Symposium will meet those challenges with the same adaptability and spirit that it has proven throughout its existence.

Finally, I once more thank the committee for the opportunity to speak here today and this distinguished audience for your kind attention.

Dean Thomas Mangold:

Thank you very much, Admiral.

Our fourth and final speaker this morning is Admiral Valter Girardelli, Chief of the Italian Navy. Admiral Girardelli assumed command of the Italian Navy in June of this year. Since graduating from the Italian Navy Academy, he has served aboard and commanded numerous small combatants, including the aircraft carrier *ITS Garibaldi*.

Ashore, he has served as Commandant of the Naval Academy and head of the Financial Planning Office of the Navy and Defense Staffs. Before his current position, he was appointed Deputy Secretary General of Defense and Chief of the Cabinet of the Italian Ministry of Defense.

**REPORT ON THE REGIONAL SEAPOWER SYMPOSIUM
OF THE MEDITERRANEAN AND BLACK SEAS**

Vice Admiral Valter Girardelli, Italy:

Authorities, admirals, colleagues, distinguished guests, ladies and gentlemen, dear friends—I am particularly glad to be here today and honored to take the floor in front of such an eminent audience. Let me join the previous speakers in thanking Admiral Richardson and his staff for the outstanding organization and the wonderful hospitality.

As most of you know, I took over my current responsibility three months ago, at the helm of a navy quite known for its historic commitment to innovation and for its contribution to the development of cooperation and future visions.

Increasingly Turbulent World. An attitude of constantly looking beyond the horizon is fundamental to always being on top of the events. Therefore, it is an attitude to nurture on a daily basis, because day after day the global scenario is becoming increasingly turbulent, with a host of interrelated factors that generate crises and tensions of rising intensity and complexity.

Just think about the massive uncontrolled migration flows, ethnic and religious clashes, climate change, and the struggles to access resources and markets—all growing beyond the local and regional dimensions. All that is clear to all of us.

Crucial Role of Navies. Likewise, everybody in this room knows about the crucial role that our maritime instruments can play in the open seas as well as in the coastal and riverine waters, where we are more and more prone to operate, in conjunction with all involved stakeholders.

We also very well know how navies, through times, have showed their peculiar and foresighted ability in exploiting their intrinsic adaptability. Once more, we ought to leverage the abilities of our forces, also taking into account the invaluable heritage of our fathers.

I am talking about the inspiration we can get from the innovative spirit witnessed, for instance, at Hampton Roads, over 150 years ago, or from the evolution of naval warfare in modern times, with the constant development of doctrines and concepts, like *Forward . . . From the Sea, Sea Basing*, or the latest, the Joint Concept for Access and Maneuver in the Global Commons.

Jointness and Operating Across Domains. This very spirit, we have to maintain—first and foremost to show the effectiveness of our organization and, equally important, to engage public opinion and politicians so they realize the utmost value of maritime capabilities and in making the best use of them, if and when necessary.

Today, there is a lot of talk about the need for a joint approach to the daily activities of our organizations. True and correct. However, let me say, jointness should never be a mere [cost-savings approach], but rather, [it should be] for responding to future challenges, which in my opinion, require a “cross-domain approach” to operations.

In this light, I believe that jointness is one of the options—yet not the only one—for responding to the current need to “[do] military business in a multi-environmental and multi-dimensional way.”

At this point, I wish to underscore that our navies are cross-domain oriented, and inherently multitasking by their nature. I am referring to the international and interagency posture of our surface fleets, and to their synergies with submarines, naval aviation, amphibious and landing components, special forces, and the panoply of supporting assets, such as logistic, hydrographic, and survey ships. [It is] a beautiful ensemble that has proven to be crucial in many cases—for example, within the scope of entry and exit operations, as well as in the area of soft-power engagements that involve activities in capacity building, military diplomacy, or cross-domain awareness.

That said, navies should always strive to improve—for instance, by fully harmonizing missions and operations in common areas of interest, as could be the case between NATO and the European Union in the Mediterranean.

Cooperative Deterrence. And how about deterrence? [It is] a powerful concept that underpins capacities, capabilities, and commitments—able alone to prevent many problems—and one that we had better refresh!

To this [end], we should develop appropriate measures to also counter nonstate actors through an innovative form of cooperative deterrence and response, based on a federative approach that may capitalize on existing tools in cooperation initiatives. As I said, we should clearly leverage that.

We should, firstly, do it among our respective communities, by fostering such consciousness within our leadership and younger generations. We should then make our point in the joint environment, sustaining the cause for cross-domain, capable navies. We should furthermore promote this maritime culture with our policy makers.

The WIDER MED: A STRATEGIC CROSSROAD



COMPLEX GEOPOLITICAL SITUATION IN THE REGION

- rising tensions
- proliferation of conventional submarines
- unprecedented massive migration flows

Participants of the Tenth Regional Seapower Symposium focused on the strategic relevance of the wider Mediterranean.

And we must all do this together, because we all know that no country—not even the best-suited ones—can independently cope with the increasing variety of modern threats.

Tenth Regional Seapower Symposium. In this light, throughout its twenty years of activity, the [Venice Regional Seapower Symposium](#) has been constantly led by the willingness [to link] regional navies from across the wider Mediterranean and Black Seas, together with actors that either operate therein or participate as observers, and with several agencies from the maritime cluster.

The last Regional Seapower Symposium gathered thirty-eight navies—twenty-six represented at the level of their chiefs—and seven international organizations, both military and civilian, to discuss [the theme] “Enhancing Maritime Security in the Wider Mediterranean.”

Let me now drill down on the main outcomes from those two days of fruitful discussions. Firstly and most importantly, all participants agreed on the strategic relevance of the wider Mediterranean and the need to maintain the freedom of access to its resources and the sea lines of communication that directly affect global prosperity.

All speakers brought their valuable insights and experiences. We share concerns about the complex and fast-changing geopolitical situation in the region, ranging from tensions on the eastern European flank and all across the south Mediterranean belt to the proliferation of conventional submarines and to the massive migration flows.

For centuries the Mediterranean region, strategically located at the crossroads of three continents, has been bridging—yet not without difficulties—different

NEW ROLES FOR THE NAVIES

Safeguard the
sovereignty of
States and the
security of
their societies

- promoting global peace
- securing economic interests
- reassuring citizens living abroad
- preventing crises
- granting the rule of law at sea and the freedom of navigation

Now more than ever, navies are called on to safeguard the sovereignty of states and the security of their societies.

religions, cultures, economies, and societies. Today its stability and peace are seriously challenged by several threats, often rooted way beyond its boundaries, with potential planetary reverberations.

In this perspective, even more than in the past, navies are called on to safeguard the sovereignty of states and the security of their societies. They do this by promoting global peace, by securing economic interests, by reassuring citizens living abroad, by preventing crises, and by enforcing rule of law at sea and freedom of navigation.

In two different sessions we tried to answer crucial questions on the roles that navies have in a multifaceted scenario and how we can succeed despite reduced financial resources.

First, we rethought the way we shape our fleets and train our crews. The aim is to create credible, effective, well-trained, and adaptive fleets and crews, as cost-effective solutions for the whole spectrum of maritime challenges. More precisely, we have to build a new generation of modular ships, capable of performing a greater number of missions, from granting homeland security to supporting humanitarian assistance and disaster response, from fighting asymmetric threats to covering traditional warfare areas that have been—especially in the last few years—quite neglected, like antisubmarine warfare, just to name one.

Since our people remain the most precious enabler, we have to invest more in them than in the past, training them to acquire and maintain proper skills in a broader spectrum of emerging tasks, such as law enforcement, interagency cooperation, and cyber warfare.

It goes without saying that, if trained to face the high-end threats, it's easier to accomplish lesser complex tasks.



The Tenth Regional Seapower Symposium accomplished several actions to bolster maritime security.

A second set of findings was in regard to the need to increase dialogue and cooperation. A collaborative attitude among nations is key to developing partnerships, based on confidence and mutual trust, and to ensuring overall stability, starting with the maritime domain.

In this view, regional initiatives, mostly led by navies, play a fundamental role as force multipliers and as a means to deconflict overlaps and optimize resources.

Indeed, existing partnerships—such as the near-real-time sharing of information with the [Virtual-Regional Maritime Traffic Center](#), or regional initiatives like 5+5 and [ADRION](#)—have already paid good dividends, proving that it's worth investing in them.

Symposium Achievements. In this sense, let me recall some achievements of the last symposium. Nigeria signed the “Note of Accession” to the [Trans-Regional Maritime Network](#) (TRMN), becoming the thirty-first navy to adhere to it. This boosted international cooperation among navies in the Gulf of Guinea.

Two technical agreements regarding maritime security were signed, enabling establishment of the “[On-Call Maritime Force](#)” within the [ADRION](#) Initiative, which recently had its first training activation.

Progress was made on the Italian Navy's proposal for the development of the Maritime Cooperative Strategy for the Wider Mediterranean, aimed at broadening cooperation through regional hubs.

Let me express my personal satisfaction with the active participation and sincere contributions made last year in Venice by many senior leaders, who I am glad to see are here today.

Regional Seapower Symposium in 2017. I [now] confirm my commitment to the eleventh Regional Seapower Symposium, which I'm glad to announce will be held in Venice, October 2017. Its main theme will be “Navies Beyond Traditional Roles: Crewing Efforts to Project Stability and Security from the Seas.”

This theme aims to address topics such as the development of adequate legal frameworks for the best and joint use of maritime power, the recovery of deterrence, and the affirmation of the inherent characteristics of fleets, especially in terms of modularity, flexibility, versatility, and sustainability.

I believe we must exploit the theme of bringing the maritime dimension back to its central role of influencing societies through trade and connections, in the broadest sense.

Myself and my staff are already at work for our next appointment, always focused on making concrete steps in thwarting the “sea blindness” that still affects part of public opinion and that often influences the way strategies and policies are conceived and perceived.

Thank you for your kind attention.

DISCUSSION

Question:

I would like to re-ask a question from two years ago. If I recall, one of the commandants of a navy, probably Netherlands, said, “Almost all the topics we are discussing are related to coast guards, so are we becoming ocean guards?” I would like to ask the commandants of the navies if they can elaborate on this topic.

Response A:

I think that the coast guard can and should play a strategic role in the maritime domain. I think that connection and shared tasking of navies and coast guards are essential to maintaining a clear picture of the situation, as well as readiness to act and prevent and solve emerging crises.

Response B:

In this instance, words matter. The manner in which we look at these [issues] is probably defined based on our experiences.

One of the things that the Inter-American Naval Conference really reinforced for me is that, in terms of NATO navies, we typically look through the lens of a navy and a coast guard. Many of the navies of the Americas are actually responsible for the full spectrum of the mission set.

So, trying to pigeonhole and use precision in language are always problematic in terms of where we go. If by “ocean guards” you mean that as a positive statement—that we’re all united as a group in terms of looking after the full mission set that our governments expect us to deliver on and if that’s a positive thing—then we’re ocean guards.

But trying to pigeonhole navy and coast guard, I think, is a great academic conversation that you could probably have at the International Seapower Symposium for the next ten years. Probably at International Seapower Symposium XLIV we’ll still be having that conversation, unless the dynamics change.

For all intents and purposes, depending on the nation which you serve, there’s a navy and a coast guard. In some instances, it’s a navy exercising coast guard and navy mandates. I think it’s a great academic question, but once we get to sea it’s immaterial, and we’ll deliver on whatever it is our governments direct on a given day.

Response C:

Actually, the navy and coast guards have very different roles to play, when you’re talking of ocean guards. Generally, it’s the coast guards of most nations that are mandated to enforce their countries’ laws within the territorial sea and the large exclusive economic zone. That is where the coast guard comes to have a role.

You can’t really pigeonhole navies and coast guards by saying ocean guards. They have two very different roles to play and different mandates the world over.

Response D:

Navies and coast guards might differ on the perimeter of each country. For Indonesia, it looks like the navy and coast guard are the same but have different tasks. The challenges of maritime security now are more complex. So, indeed, is the cooperation between the navy and the coast guard. I had experience [with this] last month in the U.S. Navy exercise with our coast guard in Indonesia. In the future, cooperation between navies and coast guards will be wider and may need some strategy and policy.

Question:

I’d like to add one question for the panel. Around the world, we’re seeing lots of regional issues—a lot of common challenges, common missions—but we’re doing

them individually. Based on your regions, are there any mission sets that you think may be possible to do more in common with your neighbors, for example, search and rescue?

Response A:

I think that there are two very common missions associated with climate change and severe weather phenomena. One is search and rescue, another is humanitarian assistance/disaster relief. I think there is a great potential for these two in the IOR, which is prone to severe weather phenomena like cyclones. Navies can cooperate and work to tackle these two.

Response B:

Indonesia's experience with civilian rescue in 2015, at the beginning, that involved search and rescue between the Indonesian Navy and a foreign navy. Also included was the coast guard from another country. So, this is a possibility for expanding cooperation, not only for navies and coast guards but also other stakeholders. But I think we need some procedures if the units come from other countries.

Response C:

My sense is that, right now, in terms of the relationships and the partnerships and trusts that accrue, as a result of the forums that we've just spoken about, there is more of a drive toward international partnerships and delivering on mission sets collectively. As a result of navy-to-navy staff talks—as you increase that dialogue—you overlay the Venn diagrams and see that you're going to be operating in the same part of the world.

Why can't we do that? At our level, we probably are very much focused on trying to be able to deliver on just that.

Where we struggle is probably at the staff level, where they try and orchestrate and put those deployments together, where you can actually have more joint and combined operations. That's why I really enjoy the navy-to-navy talks; I just had [one] with [Rear Admiral] John Martin from New Zealand. We're going to have a couple units in that part of the world. Our staffs probably aren't aligned up to deliver on that.

I think one of our challenges, right now, is to reinforce that—communicate, communicate, communicate—down to our staffs, and enable them to reach out and try and drive those types of missions sets to fruition.

Response D:

I believe that a comprehensive approach to this kind of mission is the best way to succeed. There are many missions, many tasks that could be coordinated and shared between navies and other assets. If, for example, in the Mediterranean the highest levels of governments established a coordination mechanism for optimizing asset availability and direction and activity, I think that the role of navies will be enhanced.

Question:

It really caught my attention, Vice Admiral Girardelli's mention of the deterrence issue. How did you come up with this view? How are you and your country, or your

region, attempting to address this issue of deterring nonstate actors threatening the security of many countries?

Response A:

Deterrence—the term could be interpreted in two ways. The traditional way is based on nuclear power and is not current and correct for this situation with nonstate threats.

I think that deterrence in cooperation could be the way to solve, to fix, the instability in parts of the world. In other words, if the international community of navies can show it is able to build a reaction force, which can be established in a state that has failed—establish the ability to exercise justice, to intervene in conflict and illegal activities; for example, trafficking of migrants, arms, and so on—I think that could be deterrence in a new way, a new strategic approach.

Comment:

Excellent reports from the regional symposia. Not so much a question, as I just want to make comments on this.

Very much [of what was presented] covered security and also the threat perspective. It is very important, also, for us to understand the other perspectives that relate to the challenges to maritime security.

First would be political, in terms of domestic and regional as well as global political perspective.

The other one is what we are experiencing. I'm sure a lot of us are experiencing, as well, the fiscal challenges, the economic perspective of things, because we tend to very much rely and depend on how much we can afford, especially smaller nations.

The other perspective would be cultural, where we talk about the partnerships involved in many of the regions and also the extraregional aspects of cultural issues. The internal social perspective is also very important.

The fourth perspective would be technology. We're all very much in the navy uniform here. A lot of technology has changed the way we are doing things.

The next perspective would be the environmental aspect with respect to the weather and the way we work together.

And finally, the legal perspective. The rule of law is impacting a lot of our operations.

So I would offer that, [the] terms of P-E-S-T-E-L (political, economic, social, technological, environmental, and legal), and not just the security and threat perspectives when we talk about maritime security challenges.

Comment:

I don't have a question. You may notice that one part of the globe is missing on the table, which is Africa. I know why it's missing, because for a few years we haven't had a symposium.

This is a call to our African leaders. We need to rethink that. We need to launch this initiative, because we had three symposia. I think that before ISS XXIII, we'll have a symposium in Africa.

There are a lot of initiatives going on in Africa. I think for the next days, Ghana and Nigeria, we will talk about those initiatives. And before XXIII, we'll come and sit at the table and talk about our initiatives.

Question:

That's great. I'll just ask one more question of the panel; I think it's a good one. We've talked about some of our challenges at the lower end of the threat spectrum, often involving criminal behavior. So, when we talk about nonmilitary challenges—or these new, evolving challenges—how do you work with the interagency, the other organizations in your government, usually civilian?

So within your countries in a region, is there a way for civilians and militaries to cooperate to meet these important challenges? Immigration is one that is a big one that's on people's minds, I know, in Europe. Are there some ways that you could talk about that from your region and make some recommendations or observations?

Response A:

What I think is taking place in the region is that we went to the Inter-American Naval Conference and had this conversation.

In maritime security operation centers, that's where you bring all of your partners together in the same space. Then, as events unfold, you still respect various departmental or ministerial jurisdictions in order to still get the job done.

It's problematic sharing information just inside our own government departments, let alone across nations. You crack that nut in terms of how you can share information across jurisdictions, domestically. Then, there's that tougher nut to crack, in terms of being able to share more broadly.

Hopefully, with the level of dialogue on how we can do that, we'll actually be able to have that cooperation, not only domestically but internationally. But I'd say that's the biggest challenge going forward.

Response B:

In any country, many are talking of interagency cooperation. It is very difficult to bring down barriers. You need an enlightened political leadership that can bring these barriers down and make agencies work together to deliver capability. I think this will be the case in country after country.

It takes time, effort, and you have to pick away slowly so that you can deliver the end capabilities that you are looking for.

Response C:

I would like to add one thing. Immigration, criminality, migration flows are the arena of the interagency—agree fully. But interministerial, intergovernmental, and international approaches are required for success.

Question:

I enjoyed very much your presentations. You are talking about things that we did not hear about when I was here in my first International Seapower Symposium, which was XVIII. When we were talking about the roles of navies, they did not include supporting law enforcement. And this is something that you all referred to in your presentations today.

So, when we look, for example, at narco-traffic at sea, that itself is a law-enforcement problem. But because it's affecting the security of people, countries

have to change the laws in order to be successful in helping combat narco-traffic and other things.

From the law-enforcement side—they have been moving. For example, now Hezbollah is laundering money for many cartels in the world. So those things are changing from law-enforcement to security issues.

Admiral Girardelli, you are talking about the need for international, intergovernmental cooperation and how navies could help those organizations to see the importance of working together to solve problems that, initially, could be easy to look at but with time will be more difficult, and will be affecting national security in your countries. How do you see that in the future?

Response A:

I guess innovation is key here, in terms of how we can deal with a cross-borders challenge. The Joint Interagency Task Force, I think, is a good example of where we're being innovative and bringing multiple stakeholders to the table, in terms of increasing effectiveness.

We go back to the Inter-American Naval Conference in terms of dialogue: how can we do that more effectively across the region, so bilateral meetings take place in terms of how we can be more effective? As you know, the threat becomes increasingly more challenging.

And the more effective we get, my conjecture is, the bigger the threat, in terms of reaction. That's just something we need to keep in the back of our minds. As we become more successful, at some juncture, we will cross a threshold. There will be a step function in the threat. How will we deal with that going forward?

Response B:

With high-level career training, career preparation, navies could be, in the future, the focal point for supporting law enforcement.

Response C:

The navies have to work within national mandates, which deal with roles, law enforcement, and what navies are empowered to do. Unfortunately, in most countries navies are not empowered to do law-enforcement work. That's the first plan that we need to do.

The Navy is not empowered to, say, enforce arrests, or this sort of thing. That mandate is with the coast guard.

We need domestic laws that empower navies in these roles. That's where it will start from.

Rear Admiral Jeffrey A. Harley, United States:

I'd like to thank our panelists for breaking the ice for us. It takes a certain amount of courage to come on up here and give a very insightful and coherent presentation, summarizing the regional symposia around the world.

I take the point about the lack of African presence on the stage. We're going to hear from chiefs of African navies later in the symposium. We did have the Gulf of Guinea dialogue in Annapolis, Maryland. There are important issues that we have to address in terms of maritime security in the African region. I look forward to addressing those.

With respect to the questions and answers, it almost takes as much courage to ask the first question as it does to give the first presentation. To our people who asked such insightful questions, I want to thank you, as well, and encourage you to do more.

These opportunities are so rare for us to come together as chiefs of navies, and we have to open up a bit to take full advantage of this.

Last night, we had jazz music playing. The success of good jazz music is that we lay out a theme. Then, each musician picks up on that theme and is eager to contribute. I encourage all to take the fullest advantage of the opportunity that presents us here, as a plenary group and individually.

Thank you for terrific presentations. Thanks for getting this thing rolling with such style.

An Address

The Honorable Ray Mabus

Secretary of the Navy

Admiral John M. Richardson, United States:

It's my pleasure to introduce the next speaker, who really needs no introduction. Many of you had a chance to speak with him personally. The Secretary has made it a goal to aggressively travel the world and get a firm understanding of what maritime security means from your perspective.

He has been the Secretary of the Navy for seven years, which is a longer tenure than any other Secretary of the Navy since before World War I. He has been a terrific mentor, a very active Secretary. The Navy is different and better by virtue of his tenure.

He also has made every International Seapower Symposium during his tenure. He has made it a point to come up here to address this crowd, which speaks volumes about the import he attaches to this conference.



The Honorable Ray Mabus gives his fourth and final ISS address as U.S. Secretary of the Navy.

Please join me in welcoming the seventy-fifth Secretary of the Navy, The Honorable Ray Mabus.

Secretary of the Navy Ray Mabus:

Good morning to all of you. And thank you, Admiral Richardson, our great Chief of Naval Operations. Thank you for your leadership and your efforts, and to the staff

“We in the maritime services don’t view the world’s oceans as bodies of water that separate us geographically, but rather we recognize them as connectors, a source of opportunity for us to work together.”

—The Honorable Ray Mabus,
U.S. Secretary of the Navy

for coordinating this incredibly important event. And thanks also to Rear Admiral Jeff Harley and the Naval War College—everybody here—for hosting this event.

As the Chief of Naval Operations said, I’m circling around the bookends on my career. I was in the Navy in 1970, here in Newport. To come back forty-six years later to the International Seapower Symposium brings me just pure joy. This War College continues to serve as an international professional university, where our officers, and officers from around the world, come together to learn, to

learn from one another, and to address the issues that affect us all. That’s precisely why all of us are here today.

So, welcome. You are the leaders of the world’s navies. Thank you for being here at the Twenty-Second International Seapower Symposium. And thank you for welcoming me to my fourth and final address to this audience as Secretary of the Navy. As the Chief of Naval Operations said, I’ve been Secretary for more than seven years now. I’ve had the privilege to serve with three Chief of Naval Operations, and four Commandants of the Marine Corps. During my seven-plus years, I’ve traveled 1.3 million miles to 152 countries and territories around the world, to visit you in your headquarters, to visit you on your ships, to get to know you personally.

I’ve hosted a lot of people in this room, at the Pentagon, or at our Naval Academy in Annapolis, or here at the Naval War College. It’s been one of the great privileges of this job, to get to know so many of you as chiefs of navies around the world. I’ve done these travels and these meetings, because as all of you know—and all the maritime leaders know—you can surge equipment, you can surge people, but what you cannot surge is trust.

For nearly half a century, ISS has served as a foundation on which that trust can be built. As the Chief of Naval Operations said, this is a chance to get together and be candid with each other, talk to each other. I believe in his words—mix it up a little bit.

Partnerships. While we represent individual navies, we each belong to a greater fellowship, the fellowship of the sea, forged by the timeless bonds of wind and wave. It reminds us that we, in the maritime services, don’t view the world’s oceans as bodies of water that separate us geographically, but rather we recognize them as connectors, a source of opportunity for us to work together.

Through these partnerships, we promote our shared goals, things like freedom of navigation and freedom of the seas. Those partnerships are developed here.

When I was getting ready for this speech, I was reminded of what one of our former Chiefs of Naval Operations said: the navy has both a tradition and a future, and we look with pride and confidence in both directions. I share that sentiment, so today I want to look in both directions. I'll look back at some of the significant progress we've made together, over the past seven years, and I want to look forward to the horizon, to recognize how partnerships developed at ISS will enable us to meet the challenges that lie ahead.

I first took office in May of 2009. Only a few months later, I spoke at the Nineteenth International Seapower Symposium. I pledged then that by working together we could combat terrorism, by working together we could deter piracy, by working together we could make the effort to stop weapons proliferation and arms smuggling, by working together we could counter illicit trafficking of all sorts, by working together we could protect fisheries and the larger ocean environment. And we have worked together in a lot of ways.

In the Americas. We've collaborated, literally, from the top to the bottom, at sea and at the Inter-American Naval Conferences. During **ICEX** [ICE EXERCISE] 2016, we worked together with Canada, Norway, and the UK in the increasingly important northern waters.

Here in North America, just last week I was in Mexico, where my host was Admiral Soberón. By the way, Admiral Soberón is the only other person in the world that bears the title Secretary of the Navy. So he's the only person I can have a counterpart visit with—unlike the Chief of Naval Operations and all the rest of you. We talked about the many ways that we train together and operate together, including joining forces on saving the critically endangered porpoise, the vaquita.

As we speak today, Panama is hosting this year's UNITAS, extending its legacy and the longest-running multinational naval exercise in the world.

A little bit further south, last year Brazil hosted UNITAS 2015, where we joined Cameroon, Chile, Ecuador, Guatemala, Honduras, Mexico, Peru, and the United Kingdom to train across a full spectrum of operations. And during SOUTHERN SEAS, I got to go through the Straits of Magellan.

Going to Africa. The U.S. Navy and Marine Corps are placing a high priority on that region for our maritime engagements, particularly in the Gulf of Guinea. That's why I hosted more than thirty African and European ambassadors at the Washington Navy Yard last summer, why at the last International Seapower Symposium we had a day set aside for the Gulf of Guinea, and why we held a **Gulf of Guinea Maritime Security Dialogue** at the Naval Academy last fall with more than fifty nations present.

At each of these, we talked about lessons from **OBANGAME EXPRESS**, the French-led **EXERCISE NEMO**, the Angola-hosted **International Conference on Maritime and Energy Security**, and Naval Forces Africa **TURN THE LIGHTS ON EXERCISE**. During that last event, we increased real-time AIS [Automatic Identification System] data by 80 percent; illuminated more than fifty non-AIS ships a day; increased our sea vision, maritime domain awareness tool logins by 15 percent; and increased greatly our overall tracking ability.

As part of **Africa Partnership Station** in 2015, U.S. sailors and Marines, working alongside their British counterparts, worked to build maritime capacity to counter piracy and illicit trafficking in Angola, Ghana, Nigeria, and Togo. In the classroom,

thirty-three senior naval leaders from the maritime countries across Europe and Africa got together in Naples for the [Combined Forces Maritime Component Commander Course](#).

Each of these officers returned to their respective navies with new ideas and a strengthened sense of partnership. All this was a result of increased cooperation between partner nations and a commitment to maritime domain awareness. As Commodore Yawson of Ghana rightly noted, no one nation can do it alone. Putting our effort together with the assistance of international partners is the right direction.

In Europe. We participated in the Regional Security Symposium in Venice. Discussions started there continue to be reinforced by actions we take at sea together.

Throughout the Mediterranean, NATO ships are patrolling commercial routes to deter, disrupt, and defend against terrorist and other illicit activities as part of [OPERATION ACTIVE ENDEAVOR](#). Standing NATO maritime and mine countermeasure groups are participating in large cooperative exercises to facilitate integrated responses for regional crises of any sort. The [European Union's Naval Forces Mediterranean](#) are working together in [OPERATION SOPHIA](#) to interdict human trafficking and stem the loss of life at sea.

The [United States Sixth Fleet](#) maintains a presence in the Mediterranean, and also in the North Atlantic and the Baltic and the Black Seas, securing sea lanes and hosting multinational exercises as our carrier strike groups transit through that area. Our maritime patrol aircraft operating from Greece and Italy enhance maritime domain awareness and support counter-ISIL [Islamic State of Iraq and the Levant] efforts from Turkey.

We stationed four Aegis guided missile destroyers, equipped with ballistic missile defense capabilities in Rota, Spain. These ships are available for multission endeavors. This spring the USS [Donald Cook](#) (DDG-75) joined the Swedish Navy in conducting antisubmarine warfare exercises hosted by Poland. Later in June, as part of [BALTOPS](#) [BALTIC OPERATIONS], Estonia, Finland, Germany, Poland, and Sweden trained in multiple missions throughout the Baltic.

The U.S. Marine Corps [Black Sea Rotational Force](#) in Eastern Europe is conducting the regular military-to-military engagements, building the capacity to increase our interoperability, so we can respond together quickly to anything. I witnessed the future of that interoperability when our [Great Green Fleet](#), an entire carrier strike group steaming on nuclear power and blended biofuels, unloaded these fuels when it ported in Europe, prior to entering the Suez.

In the Indo-Asia-Pacific. We joined together at the ASEAN [Association of Southeast Asian Nations] Defence Ministers' Meeting, the Shangri-La Dialogue, and the WESTPAC [Western Pacific] symposium. We created a code for unplanned encounters at sea. We published solidified maritime norms and expectations. Since [the U.S.] Navy will have 60 percent of our assets in the region by 2020, opportunities to collaborate at sea will continue to grow, with things like [MALABAR](#), [TALISMAN SABER](#), and [RIMPAC](#) [RIM OF THE PACIFIC EXERCISE]—RIMPAC, which was incredibly successful this year. Not only do we have more nations participating, but we've increased the complexity of and the range of missions in the these exercises.

We've also used these to find more ways to share technologies. I mentioned the Great Green Fleet earlier. In RIMPAC 2016, nine countries offloaded biofuels from

United States ships for use and for testing in their platforms—just one example of how we create operational flexibility and strategic advantages by working together.

In developing these partnerships, we've had a lot of successes, and I'm sure we've fallen short from time to time. But as Winston Churchill once said: success is not final, failure is not fatal. It's the courage to continue that counts. We have to have that courage to continue in these partnership efforts.

Increasing Demand. The demand for sea services will only increase in the years and decades to come. We are living in a maritime century: 80 percent of the world's population lives within one hundred kilometers of the sea, 90 percent of trade—more than \$9 trillion of trade a year—travels by sea, and 99 percent of all voice and data goes undersea in cables. It's clear that the global economy, and in fact, the very livelihood of our nations, depends on freedom of the seas. It's also clear that our navies have been the ones that keep those sea lanes open for everyone engaged in peaceful commerce.

Unfortunately, the sea is equally accessible to those who wish to do us harm. Despite our efforts, here and elsewhere, we find ourselves witnesses to a very large array of emerging security threats: terrorists that target us around the world—in places like Paris and Brussels and Istanbul, Jakarta, Borno, and San Bernardino, California—and refugees from Syria and elsewhere creating a humanitarian crisis on a scale not seen in Europe since the 1940s.

Contemporary threats can't be characterized, exclusively, as diplomatic or military or economic or legal. They don't aim to attack any one nation, or even a group of nations. Instead, they target us indiscriminately and target our values, which is precisely why a cooperative, multinational approach is the best way to provide for our common defense. A global network of navies is best suited to deter any crisis and respond whenever a crisis occurs.

It's because navies uniquely provide presence around the clock, that their unrivaled advantage—on, above, under and from the sea—reassures, deters, and gives our leaders options in times of crisis. Navies aren't just in the right place at the right time. We're in the right place all the time. There's no next-best thing to being there. In every case—from high-end combat, to irregular warfare, to humanitarian assistance, to disaster relief—it's naval assets that get on station faster, stay longer, and bring everything we need with us.

So it's up to us as navies to lead. That's why the United States adheres to the international norms set forth by the U.N. Convention on the Law of the Sea and why President Obama pledged to support its ratification and to uphold those principles. It's also why we've committed additional resources to the maritime domain. Our fleet is growing. We're going to surpass 300 ships by the end of this decade. As we allocate those ships to where they're needed the most, "being there" applies to more and more locations worldwide.

From the Northern Passage to the Straits of Magellan, from the Mediterranean to the Black Sea, from the Gulf of Oman to the Bay of Bengal, and throughout the Pacific—the U.S. Navy will be present, as we have been for seven decades.

Innovation. But we can't limit ourselves just to thinking about geography. In our Navy, we're seeking to find new and innovative solutions to asymmetric problem sets. We're investing in a lot of technologies, as you are, like cyber, unmanned, 3-D printing, swarming vehicles, and directed energy.

As we do, we're focusing on making an open architecture so that we can ensure interoperability with our partners, from the language we speak to the tactics we employ. As we develop these new technologies, we will continue to work with partners around the globe. To better capitalize on our investments, all of us—all of us—have to invest in our own security. That means more than just weapons and equipment. It means upgrading and standardizing critical infrastructure like ports and roads and airfields that allow us to train and operate efficiently and effectively together, as combined forces.

Opportunities. Integrating enables us to maximize economic prosperity, to maintain international order, to promote security. As a whole, we've become greater than the sum of our parts. We've accomplished a lot together, and we will continue to do so. We have to look for opportunities to cooperate at every turn, even when they seem unlikely or have been unattainable. The world is a more secure and a more prosperous place because of the partnerships we build here at ISS and elsewhere.

While the challenges to those ties that bind us together will never cease, we cannot allow them to fray under stress. Sailors never do. That's what makes us unique.

The head of one of our navies in the world told me several years ago that the difference between soldiers and sailors is that soldiers look down. They look at maps. They look at lines. They look at obstacles. Sailors look out. They look at the horizon. They see no obstacles. They see no lines. They see only opportunities.

This symposium is one of those opportunities. So I encourage you, look to the horizon. Do what is possible through partnerships. Talk to each other. Get to know each other better. As the Chief of Naval Operations said, mix it up. Debate different courses of action. Learn our strengths and weaknesses. How can we work together?

And finally, to all of you, our international partners, the fellowship of sailors, and my friends with whom I've met so often in so many places around the world, I wish you, for the last time in this role, fair winds and following seas. May you remain in the years and decades to come, as we say in our Navy motto, *semper fortis*—always courageous. And, as in the motto of the United States Marines, *semper fidelis*—always faithful.

Thank you all very much.

Global Partnerships: A U.S. Coast Guard Perspective

Admiral Paul Zukunft

Commandant, U.S. Coast Guard

Admiral John M. Richardson, United States:

There were many questions on the intersection of law enforcement and national security, particularly at sea, about the roles of coast guards and navies, and how each of our nations get at that problem.

In the U.S. security system, there's nobody better to speak to than our next speaker, Admiral Zukunft. He assumed the duties as the Commandant of the U.S. Coast Guard in 2014. Our Coast Guard is now the largest component of our Department of Homeland Security. The Coast Guard has about 88,000 personnel.

Admiral Zukunft is perfectly positioned to lead. He's been in the Coast Guard for thirty-nine years. Paul Zukunft sits in the [Tank](#).¹ He sits with the other Joint Chiefs of Staff, because his perspective on things is so unique. He interfaces with parts of



Admiral Paul Zukunft, Commandant, U.S. Coast Guard, addresses ISS XXII participants.

1. "The Tank" is the Joint Chiefs of Staff conference room in the Pentagon.

our government, particularly in the interagency, in a different way. He's got a different set of authorities. He interfaces with people that our military normally doesn't.

So, he's always got a unique perspective about how to solve a particular problem, always asking, "Did you think about this?" and saying, "Let me tell you how we got after that"—always adding a lot of insight.

Join me in a very warm welcome for our twenty-fifth Commandant of the Coast Guard, and my good friend, Admiral Paul Zukunft.

Admiral Paul Zukunft, United States:

When you look at the theme for this year's International Seapower Symposium, we're stronger already. We're already maritime. We already have a relationship, and out of that relationship grows partnerships.

NO ONE NATION

As you heard, I do sit in the Tank. We are, first and foremost, a military service, but we're also a law-enforcement agency. We're a member of the national intelligence community. We're talking about a broad suite of authorities that are resident in the United States Coast Guard. We're the smallest of the five armed services, and I'm a big believer that necessity is the mother of all invention.

I'm going to talk, later, about the list of partnerships—many are represented here today—with whom we have bilateral relationships. We're not just off the coast of every continent and the United States. We have broad authorities when we're off those coasts, as well.

Alfred Mahan was really the framer of sea power, so much so that President Teddy Roosevelt mustered the Great White Fleet. Now, they weren't Coast Guard cutters, but it was a demonstration of sea power back in that era.

If Alfred Mahan wrote a compendium to sea power in the twenty-first century, would it be autocratic, would it be unilateral, cooperative, or multilateral? Because he was all about control of the sea. No one nation can control all of what is at sea today.

I'm going to focus on some of the nonstate actors. I'm talking about piracy, drug-trafficking organizations, and transnational organized crime. That's a \$750 billion enterprise, bigger than the gross domestic product of most nations.

We're going to talk a little bit about illegal, unregulated, and underreported fisheries.

I'm looking at the rising sea level. Now, why? Who is the steward of the ocean among our armed services? I've taken that one on because we protect fish and mammals.

RISING SEA LEVEL

We'd better keep an eye on the rising sea level. I was in Greenland three weeks ago with two climatologists and a ranking member from our Senate. We were on the [Jakobshavn Glacier](#) in Greenland. It's the largest glacier there. It has retreated over twenty-five miles in the last five years.

Now, why is that significant? If that one glacier alone melts, and by all indications it will within the next four to five decades, that alone raises sea level 1.5 feet.

If you look at the western peninsula of Antarctica, which I look at as well, conservative estimates today are that the sea level will rise seven feet by the end of the twenty-first century.

What does that mean if you are a low-lying nation? We have seen the village of [Shishmaref](#) in Alaska evacuated because it is now literally underwater. We look at the [Marshall Islands](#), where they're seeing water inundation, as well.

If you look at some of the hubs of global trade, what happens if you throw seven feet of water on top of that, and then a typhoon on top of it, just to make it interesting?

The Secretary of the Navy said 80 percent of our population lives within one hundred kilometers of the sea. By 2100, that might be fifty kilometers. So, it's something that we need to be mindful of.

We've seen a whole other ocean and that's the Arctic. This year, we had record low sea ice extending into the summer months—the second in history. The last one was four years ago. So we're seeing records repeat themselves every three to five years.

What's filled that vacuum is human activity in the Arctic. So, how do we approach this domain? Is it the next military domain? Do we approach it for maritime commerce, for the rich natural resources that are up there, or do we make that the next front? I think that's something that Alfred Mahan would want to think about as well.

U.S. COAST GUARD AUTHORITIES AND TRANSNATIONAL CRIME

We'll talk a little bit about some of our authorities. [The following photo] is aboard the U.S. Coast Guard Cutter (USCGC) *Stratton* (WMSL 752) in San Diego. That's



In August 2015, the U.S. Coast Guard intercepted a semisubmersible vessel and seized 7.5 tons of cocaine, worth an estimated \$227 million.

thirty-two metric tons of cocaine, from sixteen interdictions on one deployment over seventy-five days.

We have forty bilateral agreements with other countries in the source and transit zones. If they don't have a navy or a coast guard, or if they do and are not deployed, we are given broad authority to take enforcement action within their territorial seas.

We talk about nonstate actors. They have no respect, whatsoever, for maritime borders. Yet, we have oftentimes allowed our maritime borders to be fences against cooperation among like-minded nations.

This is the combined effort of interagency and international: last year, we brought over 700 smugglers into custody for prosecution in the United States. In some countries, the prosecution rate is 2 percent. In the United States, it's 99 percent. Those numbers work for us.

A challenge we see is in the information that we have on drug flows. It's destined for the United States. It lands in Central America in bulk, it's broken down, and it feeds a 300-metric-ton-plus consumption habit in the United States. We own this problem as a nation. We can't be looking down our nose at countries that are sourcing and transiting this. We own a burden of responsibility for the violent crime.

When we look at unaccompanied minors leaving El Salvador, Guatemala, Honduras, and the like, much of that crime—the seeds of that crime—were planted by the cocaine that comes ashore, ultimately destined for consumption in the United States. We own that piece as well.

ILLEGAL, UNREPORTED, AND UNREGULATED FISHING: THE NEED FOR PARTNERSHIPS

We look at fisheries. There are about fifty million fishermen worldwide. About three billion of our world's 7.4 billion population relies on seafood as its only source of protein.



A U.S. coastguard and a Palauan law enforcement official inspect a foreign fishing vessel.

Let's look at the year 2100. The UN estimates that the global population will be 11.2 billion people. How are we going to feed the masses? Is this source of protein going to be around?

I look at the sustainability of fish stocks and illegal, unreported, and unregulated fishing activities. We are on a course for disaster. Throw in rising sea temperatures and fish moving farther north and that could be another problem set, as well.

We need to think about how we apply sea power in the twenty-first century. Many of those fifty million fishermen are just out to make their boat payment and harvest as much fish as possible while they're out there, with no appreciation for the sustainability of these fish stocks.

There again, one nation cannot do it alone. It requires maritime partnerships to get after this particular problem set.

MIGRATION: HUMANITARIAN MISSION AND ASSIMILATION

How do we secure our maritime borders? We heard from the Secretary of the Navy. We have seen the biggest flow of migration since the 1940s. Many are taking to sea. Many are manifestly unsafe voyages that they embark upon.

They're fleeing crime-ridden countries. They're fleeing countries that have no governance structure, where there is no regional stability. Within the Western Hemisphere, the abyss between haves and have-nots is growing wider—and in the world around us.

You have these push-pull factors that are going to be in play for some time. Can we look ten years out and say that we weathered that storm? This is going to be generational. We need to think long-term about how we reconcile this movement of people.

This is, first and foremost, a humanitarian mission. Panama is holding about 2,500 detainees. They are trying to work their way up the isthmus and across our



A Coast Guard crew member from USCGC Kathleen Moore pulls a Cuban man out of the water, 9 December 2015.

southwest border. It's costing millions a month to care and feed for these migrants. Those are small numbers compared to what we're seeing in Turkey, Greece, and the Mediterranean right now. It is draining those nations' economies.

You know who is paying those bills? Where would those discretionary dollars go otherwise? They would probably go to our militaries and our maritime services. This is bleeding us.

But it is indeed a humanitarian mission. We are a nation of migrants. We were much like those today, but maybe in [slightly] more seaworthy boats. We need to be mindful [of that]. We need to be mindful that we, too, are a nation of migrants. It's not just if they arrive, but how they assimilate. As I look at the world around us, what I don't see is assimilation within these countries. These migrants have voted with their feet. If they do not assimilate, then what happens?

Certainly, we're seeing what happens in our country with violent extremism, but this too is going to be a generational problem. It's very difficult to just seal off your borders, build a wall, and pray that they do not come.

SECURING THE MARITIME TRANSPORTATION SYSTEM

When I look at global trade, 95 percent of our nation's global trade moves by sea. Below is a picture of the Cheniere liquid natural gas (LNG) facility, where \$10 billion was invested. We were a nation that used to flare natural gas. We sit on 20 percent of the world's natural gas. We're just now starting to export it.

When oil was running at about \$100 per barrel, two-and-a-half years ago, we were on the fast track to being a net-export nation, where our production would far exceed our domestic demand, and we would be totally independent when it comes to oil and gas.

What's important is to start looking at campaign planning, to start looking at what happens if there is mining in the Straits of Hormuz. We look at the volume of crude oil that goes through.



A Coast Guard patrol boat patrols near the Cheniere LNG terminal on the U.S. Gulf Coast in 2015.

I'm just thinking insularly within the United States. The United States can meet and exceed its demand for fossil fuel even in a war campaign. Now, maybe we don't worry about oil being at \$45 a barrel, and we're losing money on it. If this is necessary for our existential existence, we can produce that oil, and we can produce it for allies, as well.

You need to secure that maritime transportation system to make sure that these commodities get to the market. It is key to our economic security, and if it's key to our economic security, obviously it's absolutely critical to our national security as well.

U.S. COAST GUARD STRATEGIES DRIVING INVESTMENTS

I'll talk a little bit about some of our capabilities.

You've heard of, maybe, "four-plus-one." It's the cornerstone of our [national military strategy](#). We have an [addendum to that for the Coast Guard](#). Our four strategies address

- [The Arctic](#)
- [Western Hemisphere](#)
- [Maritime transportation system](#)²
- [Cyber](#)

I was a big believer, when I came into this job, that strategy has got to drive your budget process. Your strategy has got to be relevant, and it has to have connective tissue. Each of those strategies connects to our department, and they connect to the White House, as well.

The result of that is what you see in the upper left [of the graphic below]. It is a fast-response cutter. We just awarded the final contract. We're building fifty-eight of these. On the lower left [of the graphic] is a national security cutter, USCGC *Hamilton* (WMSL 753); we're building nine of those types today. [Shown] in the



The U.S. Coast Guard is investing in its nautical, aviation, and cyber forces.

2. The U.S. Coast Guard strategy for the maritime transportation system is addressed in the *Commandant's Strategic Intent 2015–2019* and *United States Coast Guard Cyber Strategy*.

middle: we just awarded the contract for what we call our **offshore patrol cutter**. It's a 360-foot, fifty-four-foot-beam cutter. It really is an instrument of maritime security, as well. And we're building twenty-five of those.

You have to go back to Alexander Hamilton, when he was our Secretary back in 1790. He charted the United States Coast Guard. This is the most aggressive recapitalization of the United States Coast Guard in our 226-year history.

We're also modernizing our aviation forces as well [see upper right of previous graphic]. We modernized our boat forces [lower right of previous graphic]. What you see in the middle right is that we've invested in cyber, as well.

We have a cyber strategy because we work very closely with the maritime industry. In 2012, 120 ships had their global positioning system (GPS) signals hijacked. As far as they knew, they were moving along their point of intended movement, but they were actually off course because their GPS signals were hacked.

We had six mobile offshore drilling units operating in over-mile-deep water at a drill site. Fortunately, all six had that blowout preventer shut in the well—which didn't happen during the *Deepwater Horizon* oil spill in 2010. All of this had a cyber nexus to it.

Now the commercial maritime sector is looking to the United States Coast Guard for national standards for cyber security. If you push out a standard—if you believe in Moore's Law where technology doubles every two years—you might put a quick fix out there, but you need to make sure that you stay current. If you're going to stay current, you need to look at the competencies of the people that you need.

DEVELOPING AND RETAINING HUMAN CAPITAL

[The following] is a picture of one of our fast-rope teams fast-roping off a Navy SH-60 **helicopter**. Again, we talk about partnerships.



A Coast Guard member fast-ropes out of a helicopter during a joint training including the U.S. Coast Guard, U.S. Navy, and Customs and Border Protection as part of a tactical demonstration during the North Pacific Coast Guard Forum in San Francisco, California.

The reason this is significant is that we have bilateral agreements with every flag state of convenience that does trade with the United States. That gives us the authority to board these ships anywhere on the high seas if there's so much as a remote doubt—not even reasonable suspicion—that there might be a weapon of mass destruction aboard that ship. We can stop and gain positive control of that ship way before it enters our inland waterways, our ports, where it would do the most damage.

That's just one aspect of the competency. It takes about four years to grow that level of professionalism. We follow the exact same doctrine as our special forces.

We used to be a Coast Guard where you were a jack-of-all trades, and maybe master of none. We're no longer serving in a Coast Guard where you have hobbies. You have a profession. You're going to have a profession as a seagoing officer, as an aviator, as a regulator, as an acquisition professional, as a cyber expert. We're looking at how we manage our human capital for the twenty-first century.

Like all of the armed services in the United States, we are drawing from a well, where only twenty-five percent of seventeen- to twenty-four-year-olds meet the bare-minimum requirements to serve in today's military. Are we going to dumb down our standards to get numbers up? Absolutely not. Look at the at-risk operations that we do day in and day out.

The good news is we're doing a great job recruiting. We're bringing people in the door. We do a great job training them.

I do not have a force in garrison. They're all doing front-line operations. I'm not lacking for readiness.

I can recruit, I can train, but what am I doing to retain this workforce of the twenty-first century?

We're leveraging diversity. If you go to our Coast Guard Academy in New London, today, you'll see a corps of cadets, where 40 percent are women and 33 percent are underrepresented minorities. This is the fortieth anniversary of when we first brought women into the academy—and it was like who broke into the men's locker room? Now they are fully assimilated into our Coast Guard.

But when I look out ten years, what happens to that year's group of women and underrepresented minorities? At ten years, 50 percent of them will have left my service. So how do I retain that workforce?

You heard from Secretary Mabus as well. You cannot surge trust. You build that trust when you immerse people in this ethos of integrity, of service before self. It's not something you can just grow off the street.

People say to me, "That's great, Admiral Z. You got everything you asked for. You got new ships. There's \$1 billion earmarked in the '17 budget to recapitalize icebreakers. That's a bonus." But that's not what I'm looking for in the remainder of my tenure in this job. One is about partnerships. The other is about our human capital.

VERY MUCH A JOINT SERVICE

When I look at partnerships, we are fully integrated with our Navy. [Below] is a picture of one of our national security cutters fully integrated with and commanding a surface action group during [RIMPAC 2014](#).

That's the USCGC *Waesche* (WMSL 751). Today, they have eighteen tons of cocaine on their flight deck and forty detainees, because they've been down there,



Legend-class USCGC Waesche (WMSL 751) steams alongside HMCS Calgary (FFH 335) and USS Port Royal (CG 73) during a 2014 RIMPAC exercise.

for about forty days, doing great work. The ship that was down there this year, USCGS *Stratton* (WMSL 752), is now doing Arctic domain awareness. So they went from RIMPAC up to the Arctic. Same platform, same crew, but clearly multimission, able to do U.S. Code: Title 10 with the world's navies, but then leverage the many authorities that we have as well.³

Today, we have a Coast Guard law-enforcement detachment on a DDG [guided-missile destroyer] in the Central Pacific Ocean. It's a concept of operation called the [Oceania Maritime Security Initiative](#).

Vice Admiral Nora Tyson, our Third Fleet commander, fully understands that the natural resources of many of the Pacific Island nations reside within their exclusive economic zones, and there are distant-water fishing fleets plundering those natural resources. That is the only source of economic security for some of these nations. Lose that, and you've lost national security. If you lose it all, what fills that vacuum? We've seen models time and again. When you lose governance, some form of transnational organized crime—and maybe it has a link to terrorism—is going to fill that vacuum.

We have had six patrol boats serving under [U.S. Naval Forces Central Command](#) for the last fourteen years, and will continue to do so for the indefinite future.

Again, very much a joint service in all we do, leveraging the great partnerships we have, especially with nations and the world's greatest United States Navy.

A WORLDWIDE COAST GUARD

We also look at capacity building. I've been in a number of countries. They are looking for how we leverage the many authorities that the Coast Guard has. We interact with over one hundred nations on an annual basis. As I said, necessity is the mother of all invention. It really comes down to partnerships, and outreach such as

3. U.S. Code: Title 10 are laws that apply to U.S. Armed Forces.



PARTNERSHIPS

Homeported in Yorktown, Virginia, the International Mobile Training Branch is the backbone of the U.S. Coast Guard's effort to provide training worldwide.

[what we see in the above photo]. It's the training institutions that we have at our Coast Guard Academy and U.S. Coast Guard Training Center in Yorktown, Virginia, where we build those relationships that then grow into partnerships.

We're literally a worldwide Coast Guard, again, operating off the coasts of all seven continents across the globe.

How do we leverage this? The United States will chair the [Arctic Council](#), and this next year, turn over chairmanship to the government of Finland. We recognize that the Arctic Council does not have a forcing function, if you will. How do you operationalize decisions that come out of the Arctic Council?



PARTNERSHIPS

ARCTIC COOPERATION

Eight coast guard agencies of the Arctic nations sign a joint statement establishing the Arctic Coast Guard Forum in October of 2015. Membership includes Canada, Denmark, Finland, Iceland, Norway, Sweden, the Russian Federation, and the United States.

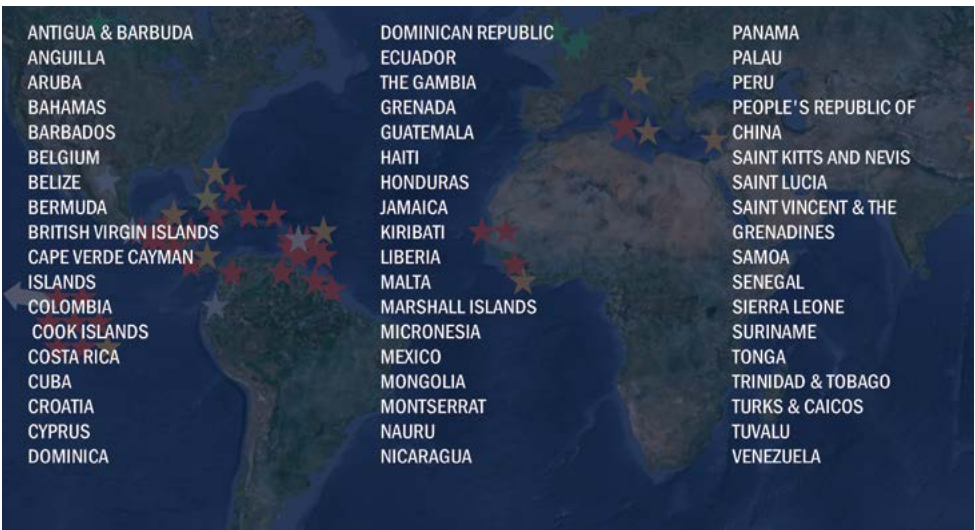
We created an [Arctic Coast Guard Forum](#). In this [preceding] picture, taken at our Coast Guard Academy, we're signing our general statement—the eight coast guards, represented in the Arctic Council.

Do you militarize the Arctic, or do you look at safety of life at sea? Is it protecting the way of life of indigenous tribes? Is it gaining better domain awareness? We've already established protocols regarding how we share information among these eight nations.

We have a very similar model with our [North Pacific Coast Guard Forum](#), with representation from the United States, Canada, China, Japan, Russia, and South Korea. We do annual operations against IUU activity—a combined operation, not an exercise, that has really squeezed down IUU activity in some of the most remote portions of the Pacific Ocean.



List of authorities resident within the U.S. Coast Guard.



The U.S. Coast Guard enforces maritime law on behalf of all countries listed here.

The above graphics are a roll-up of partnerships. [The top graphic identifies] the authorities that are resident within the United States Coast Guard. [The second graphic] is the listing of every nation with whom we have ship riders, with whom we operate within their territorial seas to take enforcement action on their behalf. It doesn't get into the many search-and-rescue agreements that we have.

This addresses drug-trafficking activity, proliferation security initiatives, and illegal fishery activities. We've been doing many of these agreements now for twenty, twenty-five years, and every year we add a few more countries to this list.

The theme for this symposium could not ring more true, when we talk about stronger maritime relationships and partnerships. We have arrived there in our United States Coast Guard, but there's always more work to be done.

It's my honor to tell you about what's happening in our Coast Guard today. I thank our Chief of Naval Operations, the President of the Naval War College, and especially the many weary travelers who made it here today. Your presence means a lot to me, and all of us, especially among the United States delegation, to be able to spend this quality time with you.

Thank you very much, and *semper paratus*.

Cooperative Strategies and Interoperability

Mr. Chris Trelawny

Special Adviser to the Secretary-General of the International Maritime Organization

Dean Thomas Mangold:

Our first keynote speaker is no stranger to the Naval War College. He's known by many in the audience today. He is Mr. Chris Trelawny, he's a Special Adviser to the Secretary-General of the [International Maritime Organization \(IMO\)](#) and one of the world's leading experts in maritime security operations. He was one of the key players enabling the drafting of the [Djibouti](#) and the [Yaoundé](#) codes of conduct. He is also a naval reserve officer with thirty years of experience.

Mr. Chris Trelawny:

Thank you for your very kind invitation to participate in this most important symposium. It is truly a great honor.

My name is Chris Trelawny, and I am the Special Adviser to the Secretary-General of the International Maritime Organization for Maritime Security and Facilitation. I have been at IMO since 2003, specializing in maritime security.



Special Adviser to the Secretary-General of the International Maritime Organization Chris Trelawny gives a presentation on maritime security.

Before that, I spent ten years in aviation security for the [International Civil Aviation Organization](#) and for the United Kingdom government, and before that, eight years in [Her Majesty's Customs and Excise](#), primarily on counternarcotics, and at sea in [HM customs cutters](#). I've also served for thirty years as a volunteer reserve officer in the Royal Navy.

I mention this because we are products of our backgrounds. My views have been shaped by experiences on different sides of fences.

So, bearing this in mind, I intend to use my allotted time to mix it up a bit and to throw out some ideas and challenges to established thinking—if, indeed, the concept of established thinking is allowed at the Naval War College.

Admiral Richardson invited me to contribute to the discussions on how to strengthen maritime partnerships and enhance maritime safety and security to meet global challenges and advance prosperity.

THE IMO AND MARITIME SECURITY AND SAFETY

I'd like to start by looking at what my organization does and doesn't do with respect to enhancing civil maritime security, and how we can assist navies and coast guards. I'll then look at the work of the IMO in the wider context of the United Nations, what we are trying to achieve, and how navies and coast guards have supported or can contribute. I'll also look at some of IMO's initiatives, and, finally propose some ways ahead.

My overall message can be summed up by quoting another giant from history, President Harry S. Truman: "It is amazing what you can accomplish if you do not care who gets the credit." I really do believe that joined-up government and breaking down silos are key to developing maritime partnerships.

IMO is the specialized agency of the United Nations, responsible for the safety, security, and efficiency of international merchant shipping, and the prevention of marine pollution by ships. We are a technical, rather than a political, body. We have 171 member states, working by consensus. The outputs of the organization reflect the collective will of those member states.

As mariners yourselves, you will be familiar with many of our conventions, codes, and guidance. Some examples are

- [International Convention for the Safety of Life at Sea](#), or SOLAS
- [International Convention for the Prevention of Pollution from Ships](#)
- [International Convention on Maritime Search and Rescue](#)

In the context of security, IMO focuses on what the civil maritime industry can do to protect itself, and on assisting governments in protecting global maritime trade. Our main focus is on risk management, deterrence, and threat transfer, rather than on countering terrorism, per se.

Having said that, IMO is also the competent body for the 1988 and 2005 [Suppression of Unlawful Acts \(SUA\) conventions](#), which criminalize terrorist activity against ships and, more recently, allow boarding on the high seas, pursuant to suspected terrorist offences. SUA 2005 complements [United Nations Security Council Resolution 1540](#) of 2004 and the [Proliferation Security Initiative](#).

Through our work on the facilitation of international maritime traffic, we also have an interest in mixed migration by sea, prevention of drug smuggling, cyber security, and prevention of stowaways.

I know that cyber security will be addressed on Friday. IMO would certainly welcome input from defense on what the maritime sector-specific threats are and, more importantly, what the industry should be doing, including practical measures to address them. That is a very live issue at IMO at the moment.

You may be aware that this Monday, 19 September 2016, the United Nations General Assembly adopted the [New York Declaration for Refugees and Migrants](#). IMO's view of mixed migration by sea is that this is a global humanitarian crisis, not just a maritime issue. It presents a range of challenges to the maritime sector, quite apart from the humanitarian considerations. But using the search-and-rescue system and diverting hundreds of merchant ships are not viable solutions to the migrant crisis.

Although governments and the merchant shipping industry will continue rescue operations, safe and legal alternative pathways to migration must be developed, including safe, organized migration by sea, if necessary. The focus must be on managing migration, so that people do not get placed into life-threatening situations, where they need to be rescued at sea in the first place.

That said, the Secretary-General of IMO, Mr. Kitack Lim, is keen to recognize the significant contributions of ships from many of the world's navies and coast guards to the rescue of these unfortunate human beings. On his behalf, I thank you all.

Although we've been active in maritime security since the [Achille Lauro incident in 1985](#) and the suppression of piracy since before that, it was events of September 11, 2001, that led to a rethink about how IMO did business.



Image TIME magazine

Migration by sea: a global humanitarian crisis.

PROVISIONS FOR PROTECTING PORT STATES FROM THREAT SHIPS

[The events of] 9/11 and other terrorist “spectaculars” around that time changed the way merchant shipping was perceived. The inherent stability of the Cold War had given way to a less-ordered world. The threat posed by rogue states, or at least, less-well-disposed states, and transnational actors operating from ungoverned spaces, became the key concerns. Essentially, the focus on the protection of merchant shipping shifted to the protection of states from merchant shipping, or at least the cargoes they carried.

The diplomatic conference held at IMO in December 2002 adopted a number of amendments to SOLAS, including the development of a new [chapter XI-2](#) on special measures to enhance maritime security, and the introduction of the International Ship and Port Facility Security (ISPS) Code, which went into force in 147 states on 1 July 2004. These measures consolidated and added to all previous IMO guidance on security, prevention of drug smuggling, stowaways, and port state-control regimes.

Essentially, these special measures to enhance security were about reassuring port states that the ships entering their waters did not pose a threat, and reassuring flag states that ships flying their flag would be protected while in other states’ ports and territorial waters.

Since 2002, further relevant provisions have been added, including the requirement for ships over 300 gross tons to carry [long-range identification and tracking](#) (LRIT) equipment and automatic identification systems (AISs).

As SOLAS addresses the safety of life at sea, it provides jurisdictional challenges ashore, where most preventative security measures are applied. Thus, IMO cooperated with the [International Labour Organization](#) to develop a [Code of Practice on Security in Ports](#), which effectively expanded the reach of the ISPS Code into the wider port area and with the [World Customs Organization](#) on container security, which led to the development and adoption of the SAFE Framework of Standards to Secure and Facilitate Global Trade in June 2005.

We, too, are committed to the concept of maritime partnerships.

PROVISIONS FOR SECURITY ON SHIPS

It’s a frequently stated opinion that merchant shipping operates in an uncontrolled, lawless environment, with grimy old rust buckets operating under flags of convenience that have no respect for the rule of law, carrying contraband and threats to good order. I would like to challenge that view.

As with the safety-related provisions of SOLAS, the responsibility for implementation of maritime security measures on board ships lies primarily with the flag state. Basically, the flag state is responsible for ensuring that ships entitled to fly its flag obey the rules. In the context of maritime security, this includes the following:

- Ensuring that security plans and standard operating procedures, specific to the ship, are developed and implemented
- Appointing suitably qualified ship security officers
- Training all crew members to the required standard



The responsibility for implementation of maritime security measures on board ships lies primarily with the flag state.

- Keeping current all plans and procedures through regular drills and exercises
- Determining policy on the use of armed guards on board.

Governments are responsible for assessing the threat to a ship flying its flag and determining the appropriate security level for that ship. An increase in security level should trigger the implementation of additional predetermined and approved measures, in accordance with the ship's security program. A decrease in security level should lead to an appropriate relaxation of their implementation.

IMO itself has no policing mandate. However, there are other methods of encouraging compliance. The maritime industry is a commercial enterprise and, in many ways, compliance mechanisms play to that.

As stated, on the high seas, flag-state law applies. However, when those ships enter the waters under the jurisdiction of coastal or port states, those ships become subject to the laws of the state concerned. Clearly, coastal and port states have an interest in preventing loss of life, pollution, environmental damage, illicit activity, etc., within their sovereign spaces, and thus are entitled to establish a degree of control, including over visiting ships.

Essentially, states are entitled to inspect foreign ships visiting that state's ports to ensure that internationally agreed standards are met and that any deficiencies are rectified before the ship is allowed to proceed. For maritime safety and environmental protection matters, this is referred to as "**port-state control**."

Such controls are generally conducted by civilian maritime safety agencies and are technical in nature.

IMO recognized the need for a similar approach to be taken for maritime security, but that the national agencies responsible for maritime security were more

likely to be coming from military, intelligence or law-enforcement agencies, rather than civilian agencies.

The term “control and compliance” was adopted for what is, essentially, security-related port-state control. The legal basis for this is detailed in SOLAS chapter XI-2, Regulation 9, on control and compliance, and IMO has developed guidance on how to implement such measures.

A number of mechanisms for international cooperation have evolved to enhance the effectiveness of port-state control. As no one state can realistically inspect all ships, groups of states have agreed to share information on ships inspected and deficiencies identified, with a view to providing more effective coverage over a wider geographical area. Ships identified as being compliant in one port need not be re-inspected in other ports; however, those found to be deficient are likely to be further inspected in other ports.

Traditionally, these agreements have been formalized through the signing of a memorandum of understanding. These effective systems for regional cooperation could readily be adopted as vehicles to enhance maritime security.

The economic driver generally compels compliance, as witnessed by the reduction in the number of accidents, oil spills, and other incidents at sea over the last few years—years that have seen an increase in the size of the maritime sector.

Ship owners operate ships in order to make money. Simple as that. Ship owners may choose the state of registry for their ships, and will generally do so in a way that protects their economic and competitive advantages. A flag administration’s revenue depends on the number of ships registered.

However, a flag state that develops a reputation for not enforcing adequate standards will see ships flying that flag being subject to increased scrutiny by port state-control authorities, with subsequent delays for ship movements. Ships not moving don’t make money. So, owners of compliant ships may elect to reflag, thus reducing the revenue for nondiligent flag administrations.

This logic can be applied to maritime security control and compliance measures. IMO regulations ensure that ships provide a range of information that may be of use to security forces and intelligence services. When the keel is laid, it’s allocated an IMO number that is permanently and overtly marked on the ship, and remains with it until the ship is recycled.

This number can be tracked through the [IMO Global Integrated Shipping Information System](#), or GISIS, website. [Equasis](#) and other programs,¹ coupled with the mandatory Continuous Synopsis Record,² can provide details of ownership, ship history, and other details that can be cross-checked against other records.

Control and compliance regulations also require ships to provide details, such as last points of call and cargoes, to port facility officers, to help in their risk-assessment

1. The Equasis website states, “Equasis aims at collecting and disseminating quality and safety-related information on the world’s merchant fleet provided by holders of such information . . . by providing factual information, its users will be able to build their own opinion on a ship or a company and to act accordingly.”

2. IMO *Format and Guidelines for the Maintenance of the Continuous Synopsis Record* states, “SOLAS Chapter XI-1, regulation 5 requires all passenger ships and cargo ships of 500 gross tonnage and above engaged on international voyages to have on board a Continuous Synopsis Record (CSR) . . . Only the ships’ Administration can issue a ships CSR document to a ship . . . The primary purpose of the CSR is to provide a history of the ship which can be inspected by appropriate officials.”

process. LRIT and AIS data can also help establish credible white pictures of shipping.

Perhaps the answer is not to seek the aviation control model, based on pre-ordained courses from A to B, with preauthorized routing plans and controlled airspace. Ship owners and operators have very good commercial reasons for not wanting the competition to know where their ships are.

The global economy is enabled and served by merchant shipping, and it works. It may not be as neat, tidy, and transparent as naval operations, but it works. Let's not mess it up with a disproportionate response.

However, you need to be clear on what threats you are trying to address. Are you looking for a particular ship, or a ship that fits a particular profile, or something that's transported as cargo?

Ships are quite easy to find. During a recent spate of incidents, old cargo ships and livestock carriers were filled with fare-paying migrants, set on autopilot and sent to crash into the Italian coast. A fairly cursory check of *Lloyd's List* and other trade media would identify similar vessels likely to be used, basically old rust buckets flying less reputable flags, standing by near ports in the area of departure. If control authorities so wished, these could have been investigated further and deterred. It's a matter of political will to act rather than capability.

Similarly, there are many commercial systems on the market that can interrogate AIS signals, establish patterns of life, and highlight anomalies. Such systems could be useful tools to assist in the suppression of illegal fishing and smuggling operations, thus contributing to food security and sustainable development as well as maritime security.

The challenge is that fishing vessels are exempt from many aspects of SOLAS and come under the auspices of the [Food and Agriculture Organization of the United Nations](#). But if navies are going to be part of the national maritime security process, in its widest sense, perhaps you need to talk to your national fisheries departments, and get them to promote a carriage requirement for LRIT and AIS at the Food and Agriculture Organization of the United Nations.

NEEDED: MORE INTERAGENCY COOPERATION FOR PORT SECURITY

National maritime security committees? Interagency cooperation for wider strategic goals? I'm getting ahead of myself. In terms of the implementation of SOLAS chapter XI-2 and the ISPS Code, I think it's fair to say that the weak point is port facilities.

Unlike on ships, where an existing safety culture was relatively easy to evolve into a security culture, security in ports is far more complex, involving many players from different governmental, law-enforcement, and private entities.

Many countries view ports as critical infrastructure and port security as a facet of national security. However, without clear national and local legislation, policies and direction, coordinating the activities of all stakeholders, security responses in ports are, at best, fragmented.

Critical to the success of port-facility security regimes—be they for protecting port infrastructure against terrorist attack, or countering theft and other criminal activity, or preventing access to ships by terrorists, drug smugglers, and stowaways—is a well-coordinated, risk-based preventive strategy.

Although IMO has no mandate to assess the compliance of port facilities with SOLAS chapter XI-2 and the ISPS Code per se, it's readily apparent that the absence of port-facility security committees is an indicator of a lack of interagency cooperation, and thus poor port-facility security.

The active promotion of such coordination mechanisms—consistent with the International Labor Organization / IMO Code of Practice on Security in Ports and other guidance—forms the cornerstone of the organization's work on promoting better compliance with those regulations.

COOPERATIVE RESPONSES TO PIRACY

Protection of ships at sea is largely addressed either in the context of countering piracy or through the reassuring presence of naval forces in conflict zones or areas of high political tension. This is particularly important in the vicinity of major choke points through which significant proportions of the world's trade and energy needs are carried by merchant ships.

We sincerely hope that this presence will continue.

It's interesting to recall that IMO started to address piracy and armed robbery against ships over thirty years ago in response to the situation in the Gulf of Guinea. This led to the collection of incident reports and the development of a comprehensive range of guidance for shipping and governments; [this collection] included model regional agreements on suppression of piracy and armed robbery against ships.

As attacks increased in Asia and the Pacific, the regional responses were a tripartite agreement between Indonesia, Malaysia, and Singapore and the development of the [Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia](#), or ReCAAP.

The lessons of ReCAAP were reflected in the Djibouti Code of Conduct to address piracy and armed robbery against ships in waters off the coast of Somalia; this became the model for the new [Code of Conduct for West and Central Africa](#). Now the states in the western Indian Ocean are looking at expanding the scope of the Djibouti Code of Conduct, taking into account the lessons from West and Central Africa.

At the same time, the [African Union](#) is encouraging a whole-of-Africa approach, with a summit planned for 15 October this year [2016]. The intention is to adopt a [Charter on Maritime Security and Safety and Development in Africa](#). As an aside, I wonder how many African navies have provided input into drafting that document.

It's important not to get sidetracked by the debate of whose responsibility it is to protect merchant shipping from pirates and the whole "arms on board" issue. The important issue is the protection of global maritime traffic, upon which the world economy depends. National interests are far wider than the flag that the ship is flying. In a global economy, as well as in the articles of United Nations Convention on the Law of the Sea, all states have an obligation to suppress piracy.

That said, naval efforts to suppress piracy in the western Indian Ocean have been deeply appreciated by the merchant shipping community.

The civil-military cooperation to counter piracy is well established. Companies intending to operate ships in the high-risk area and voluntary-reporting area are strongly advised to preregister with the [Maritime Security Centre–Horn of Africa](#), run by the [European Union Naval Force](#), so that a vulnerability assessment can be

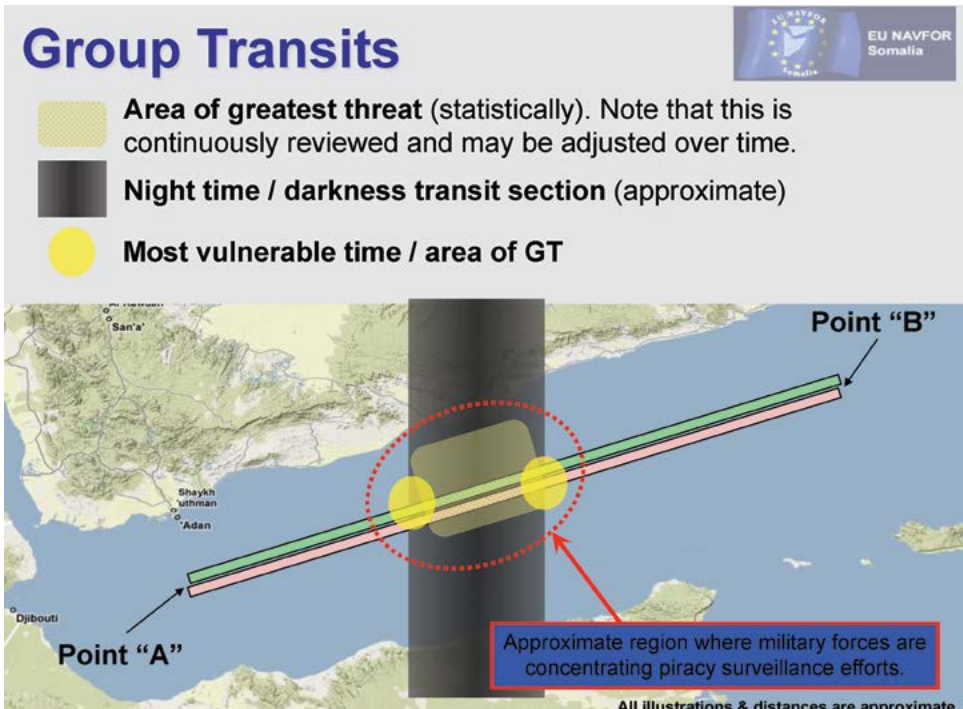
carried out and more effort given to protecting vulnerable ships. Ships entering the area are then expected to

- Apply IMO guidance and [best management practices](#) for self-protection³
- Report to the [UK Marine Trade Operations](#) in Dubai, run by Royal Navy reservists to assist
- Follow the [Internationally Recommended Transit Corridor](#)
- Improve their situational awareness by listening for warnings from the following:
 - UK Marine Trade Operations
 - NATO Shipping Centre
 - European Union Naval Force
 - [IMO's Regional Information Sharing Centers](#)
 - National naval authorities

Naval forces—supported in part by voluntary provision of LRIT data by flag states—have been effective in encouraging uptake of best management practices, through “naming and shaming” those not complying.

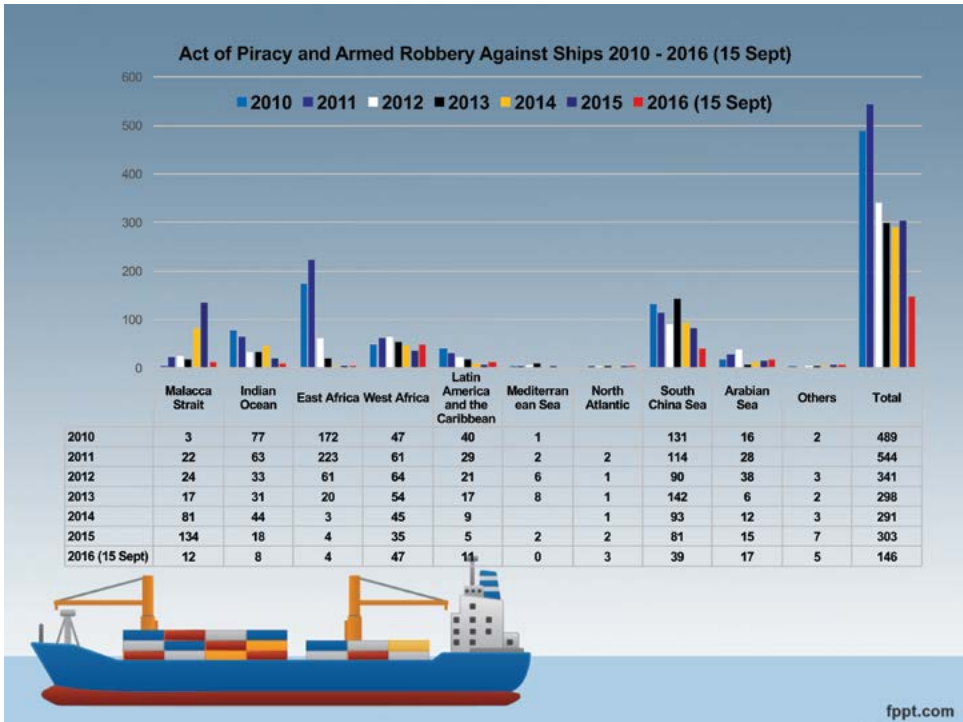
This, coupled with naval coordination through the [Shared Awareness and De-confliction](#) process, or SHADE, and proactive action by naval forces to disrupt pirate action groups, both at sea and ashore, have been very effective. SHADE is a shining example of how pragmatic actions by naval personnel, cooperating with each other for a common good and free from political interference, can achieve excellent results.

Piracy is a symptom of wider, land-based problems and will never be solved at sea, but naval forces and coast guards, acting in a law-enforcement capacity, can have



Internationally Recommended Transit Corridor in the Gulf of Aden

3. Refers to *Best Management Practices for Protection against Somalia-Based Piracy*, version 4, August 2011.



Naval forces and coast guards acting in a law-enforcement capacity have had a significant effect against piracy and armed robbery at sea.

a significant effect. This was proved in the Asia Pacific, most notably in the Straits of Malacca and Singapore, by the littoral states working together, and the ReCAAP initiative. It's being demonstrated again with Somalia-based piracy, which hasn't had a successful attack on a SOLAS ship for over four years. It's also showing positive results in the Gulf of Guinea.

GREATER STRATEGIC THREATS

I would argue that, although important, piracy and armed robbery against ships are less significant maritime threats. Greater strategic threats include IUU fishing, drug smuggling, terrorism against oil and gas installations and transport systems, and above all, failure to develop the maritime sector.

All of these issues have similar solutions—namely,

- Political will at the highest level
- Adequate legal frameworks
- Maritime situational awareness
- Law-enforcement capability ashore
- Interdiction capability at sea
- Adequate training and logistic support
- Interagency cooperation

We need to approach maritime security in its widest sense.

There's an expression that says "when you're surrounded by crocodiles, it's difficult to remember that your mission is to drain the swamp." With the current focus

on terrorism, unsafe mixed migration by sea, piracy, armed robbery against ships, and other maritime crimes, it's difficult to remember these are symptoms of bigger issues that, if untreated, will continue to get worse.

The population of the world has topped seven billion. The populations of many developing states are set to double by 2050. The ten countries with the youngest populations and the ten countries with the highest fertility rates are all in Africa. Universities are turning out ten graduates for every one graduate job. Food security and gainful employment are becoming increasingly important and increasingly difficult to achieve.

The gross domestic products of these countries are not growing fast enough to meet the demands of the increasing population. Economies are based largely on the export of raw materials, with no value added. The profits are being made outside of the countries of supply.

But by developing trade by sea, improving port infrastructure and efficiency, nurturing national shipping lines, promoting seafaring as a career, managing and protecting fisheries, securing offshore energy production, and creating stable conditions that encourage investment and tourism, we will be able to help ensure sustainable economic growth, food security, employment, prosperity, and stability throughout the developing world.

MARITIME SECURITY ENABLING ECONOMIC DEVELOPMENT

Our aim is improved economic development, supported by sustainable maritime development and underpinned by good maritime security. This will support the [Post-2015 Development Agenda](#) and complement [UN initiatives on the prevention of violent extremism](#). It will also address some of the stress factors that lead to instability, insecurity, and uncontrolled mixed migration.

Maritime security is the enabler for this. It's a means to an end, not an end in itself. The usual reaction is "that'll take years." My response is "we don't have any choice, so best we crack on as soon as possible."

As a specialized agency of the United Nations, IMO has, for a number of years, been working with our member states, globally, to enhance maritime security, maritime law enforcement, and maritime security capabilities—both bilaterally and regionally—in cooperation with the United Nations agencies, offices and programs, regional bodies, national development partners, and other organizations. Our program of tabletop exercises is aimed at getting the twenty to thirty government departments with a stake in maritime security to work together, as a national maritime security committee, to develop national maritime and maritime security strategies.

One of the challenges is that maritime security and maritime law enforcement are seen as departmental issues—for the navy, coast guard, police, or maritime authority, with those agencies competing for scarce resources—rather than being part of a national, multiagency response to developing the maritime sector.

In many countries, security is about regime security rather than creating stable conditions for trade to flourish. Few governments feel threatened from the sea, and the maritime sector is resourced accordingly.

This needs to change. A joined-up approach is needed at both the national and the regional levels. Regional threats require regional solutions.

Another challenge is the way navies and other government departments operate. In order for a junior officer to sit in your seat at the Thirty-Second International Seapower Symposium, he or she will probably change jobs every couple of years, in order to gain the experience necessary to become a chief of naval operations or head of coast guard. To get noticed and picked up for promotion, they will need to achieve things. Whereas this is great for producing fighting admirals, it can be a bit counterproductive. What is actually needed is the comparatively mundane, sustained effort over a number of years to prevent violent extremism, conflicts, and wars.

Political will is the key to success. Generating revenue is a great way to develop political will. Look at the maritime sector as a business, with navies as partners in that business. If individual states and regional bodies develop credible action plans, outlining their intentions and clearly identifying their needs, then they are more likely to attract investment—financially, politically, and through capacity building.

GREATER REGIONAL COOPERATION

I reiterate the need for member states to establish their own national organizations and legal frameworks and to develop their capacity, in order to benefit from the maritime sector. This is a precursor for successful regional cooperation.

The relationship between states and regional economic communities is complex. Regional strategies will only work if individual countries believe in them and take action to enforce them. Regional bodies represent and reflect their membership.

Regional economic communities—and alliances, for that matter—do not have any assets of their own. They will not be able to allocate sufficient resources to the maritime sector until their member states provide the impetus and the assets to do so.

On the opportunities side, we need to look at the benefits that will come from development of the exclusive economic zones. Those countries that understand the value of their marine resources—fish, oil, and gas—and invest in them, will make money and provide opportunities for employment and stability. Selling the exclusive economic zone as a business opportunity, and investing in it, is the basis for getting presidents engaged in the maritime sector.

I'd encourage those countries that have strong maritime policies and can demonstrate the value of maritime investment to pressure their regional economic communities to promote development of credible maritime strategies to other governments in the region, based on their own successes.

Civil-military cooperation is also very important. I agree with Admiral Lanba [India]. We need to break down the silos between government departments, including the navy. Avoiding duplication, sharing personnel and equipment, and standardizing approaches will benefit all.

However, there does seem to be an almost existential crisis about what navies are for. Indeed, we've just reopened the coast guards—navies debate, earlier.

Politically, there does not seem to be much evidence of grand strategic thought and planning. Certainly, many states are hampered by "government-by-accountant," a lack of joined-up thinking, and dealing with the here-and-now, rather than longer-term solutions to the world's problems.

At a time of increasing instability, the need for navies to maintain the deterrent capability of their high-end war-fighting skills remains critical. Agreed. However, in these times of pressure on budgets and resulting interservice rivalries, there can be a natural tendency to focus on the navy as an independent service and the survival of the naval role in its current form as an end in itself.

It's worth remembering that whereas an army is basically a kinetic weapon system occasionally to be fired at coastlines by the navy, navies are so much more than that. They're essentially diplomatic tools of government with the capability to project power and influence globally. Their ability to deliver kinetic effect, although essential, is secondary to that purpose.

To follow on from Admiral Lloyd's [Canada] earlier statement, the question really should be what does the whole-of-government want to do in the maritime context and in the wider security context, and how can the navy support that?

The focus is on preventing violent extremism, the threat posed by rogue states, and transnational actors operating from ungoverned spaces. Perhaps the sustainable solution would be to assist less-developed states to overcome what Admiral Girardelli [Italy] referred to as their "sea blindness" and to focus on developing national maritime business plans, supported by national maritime security strategies, and maritime law-enforcement capability, in its widest sense. Indeed, this is what IMO is aiming to achieve.

The focus should be on developing national capacity to perform what are sometimes referred to as "coast guard functions," or what the French Marine Nationale refers to as "L'action de l'état en mer." These are tasks mandated by various international conventions to which states have committed themselves, and then established an integrated network so they can be applied regionally. These coast guard functions include the following:

- Search-and-rescue capabilities
- Prevention of pollution
- Protection of the marine environment
- Maritime- and energy-supply security
- The countering of piracy and armed robbery against ships, illegal migration, and trafficking of drugs, weapons, and people

Such a system could also play a major role in states' efforts to unlock the potential of their exclusive economic zones and develop and maintain viable fishing industries.

MARITIME SECURITY FOR STABILITY ON LAND

It's important to take a strategic, long-term, and whole-of-government view and to interpret the enhancement of maritime security as a building block for greater stability on land. This includes making the fullest use of navies as a diplomatic asset within a comprehensive strategy.

Not only are navies very good at capacity building, when allowed, they're also very effective in opening doors and ensuring high-level engagement politically. Visits by warships and senior naval officers are a good vehicle for raising the profile of maritime issues to the highest levels of government. These can be followed by continued contact through defense attaché networks, especially where forward-leaning states employ naval officers and Marines in those roles.

The way ahead?



Maritime Safety Division, IMO

15



Ghanaian marine forces join U.S. Coast Guard law-enforcement specialists aboard a suspected illegally operating fishing vessel.

Ship visits, undertaking national law-enforcement detachments, can provide demonstrations of their potential maritime capabilities, and top-down as well as bottom-up training.

The [African Maritime Law Enforcement Partnership](#) program and the [Africa Partnership Station](#) are good examples of civil-military cooperation for capacity building. I'd also like to highlight the excellent support of our capacity-building programs that we've received from navies and coast guards. This includes the training teams from the [Maritime Security Centre of Excellence](#) in Marmaris, Turkey, and the [NATO Maritime Interdiction Operations Training Centre](#) in Crete.

However, sustainable programs—using small, embedded teams of land-based naval and marine personnel to deliver initial training and to train and mentor national trainers on a continuous basis—are an effective way of developing national maritime capabilities and are significantly cheaper than visits by warships. These should not be looked at simply as aid but rather as conflict prevention, and should be invested in accordingly.

For those countries requesting development assistance, it's no good just asking for money or equipment without a credible, thought-out, and detailed plan showing where the investment will be made and what its benefits will be.

How about a different way of approaching a problem? If I ask what you need, some of you will say boats. Be careful what you wish for. Chances are, you will end up with some secondhand, worn-out and unsuitable rust bucket that's only being given to you because it's cheaper than scrapping it.

How about rephrasing the request? I have a coastline of so many miles with an exclusive economic zone of so many square nautical miles. Within my zone, I have the potential to exploit sustainable fisheries to the value of X million dollars and

potential offshore oil and gas to a value of Y million dollars, providing one of my ministers hasn't undersold the rights for a fraction of their worth. To protect those assets, I need this number of ships, with a range of that number of miles, with an endurance of so many days, a crew of this number of people, fitted with this equipment, with capacity to carry and accommodate law-enforcement detachments from other agencies. The cost of these vessels will be X million dollars, which will be offset against the expected income.

Because I'm thinking regionally, I know that my neighbors have similar needs, and we could go for economies of scale by placing a multiple order. As part of the tender process, we're also going to require that when a prototype is built, engineers from my country will be part of the building team. Then subsequent vessels will be built in my country, or in my neighbor's—I'm feeling generous—using my manpower and materials, sourced locally.

In addition to providing employment, this will help me develop my national capacity to build and maintain watercraft, and help develop my wider fishing and maritime sector. Please invest in this project.

Isn't that a bit more of a compelling argument than "we want boats"?

LONG-TERM LEGACY

Finally, chiefs of naval operations and coast guards, you don't have to generate short-term wins any more. You've done it. Please give thought to establishing your legacies.

As heads of navies, you have far more political influence than your civilian colleagues in transport, fisheries, etc. You can use that influence to shape the future in a positive way.

Instead of expending efforts on turf wars and fights for resources with lesser uniformed services, why not use your time to look to the horizon and become champions of maritime development, underpinned by good maritime security?

Find and task the brightest in your organizations to work with their opposite numbers in the twenty-plus agencies that have a legitimate stake in maritime security, in order to develop a sustainable maritime security strategy, embracing civil-military engagement—nationally, regionally, and internationally. Get your head of state to sign off on it, and get your people to implement their parts of it.

You will have achieved a long-term legacy that Harry S. Truman, and even Clausewitz, Corbett, and Mahan, would respect and embrace.

Panel Discussion One

Cooperative Strategies and Interoperability

Moderated by

Admiral Christophe Prazuck, France

Panel Members

Vice Admiral Tim Barrett, Australia

Admiral Eduardo Leal Ferreira, Brazil

Vice Admiral Ibokete Ibas, Nigeria

Admiral Muhammad Zakauallah, Pakistan

Dean Thomas Mangold:

We brought in some of our other regional experts—heads of navy from around the world—to address how we figure out strategies for better and closer cooperation, regarding these vexing problems that all of our navies and coast guards have.

To aid this effort, we've a great moderator. He's the Chief of Staff of the French Navy, Admiral Christophe Prazuck. The admiral has a great career. He's served on submarines and service vessels, and commanded a frigate. I might add from his bio,



Panel One members (L–R): Vice Admiral Tim Barrett, Admiral Eduardo Leal Ferreira, Vice Admiral Ibokete Ibas, Admiral Muhammad Zakauallah, and Admiral Christophe Prazuck assemble on stage.

he has a doctoral degree in physical oceanography from the [U.S. Naval Postgraduate School](#) in Monterey.

He was head of the French Navy commandos, and then later, the navy military personnel command. So he has a very varied portfolio, and is a testament to great skill.

Admiral Christophe Prazuck, France:

Thank you very much.

We are going to talk about cooperation, interoperability, and maritime security. I'm honored to moderate this first roundtable. My intention, though, in this short introduction, is not to give you an all-inclusive plan about the best cooperation strategy at sea.

A Few Paradoxes for Comment. I may have an idea or two about it, but I would find it more productive to throw out a few paradoxes, a few difficult questions, that I can't quite get my head around and listen to your opinions and feelings about them.

The Clint Eastwood Paradox. Sometimes my commanding officers feel as frustrated as Dirty Harry. They are at sea to conduct operations in order to enforce the international law of the seas and freedom of navigation. They find the bad guys—they could arrest them, they could seize their ships—but the exact law that they have to enforce prevents them from doing so.

The Alice in Wonderland Paradox. How is it possible that you can see and follow small things but don't know anything about much larger objects? Why is it that you can track a DHL Express parcel from Kiribati to Namibia but still can't permanently track and find much larger objects, like ships and aircraft, when they are in the middle of the oceans?

The Godzilla Paradox. It's no use having the best picture in the world if you cannot act on it [relating to] the quality-versus-quantity debate. Warships are designed to do what it says on the tin: fight wars. When they don't, they contribute to maritime security. But as our ships become more technologically advanced, we order fewer of them. How does that translate to their secondary roles in maritime security, where quantity has a quality of its own?

Terrorism. I want to wisely allocate scarce resources. I mention the various, general links between maritime crime and terror. Should I look for drugs or weapons? Should I protect ports or high-value units?

The Four Paradoxes Explained. Let me explain a little bit more, in detail, about what I mean with these four paradoxes, and then I will introduce each of my distinguished counterparts.

The Clint Eastwood Paradox. Many of us have been involved in international operations to protect sea lines of communication against Somali pirates. The "Clint Eastwood" paradox was at its climax when Somali pirates found safe protection in Somali territorial waters, just a few hundred yards off one of our frigates. To avoid such frustrating and inefficient situations, we designed special legal tools. Some examples are

- Vienna Convention for drug traffic at sea¹
- San Jose counternarcotics agreement in the Caribbean²
- United Nation Resolution on arms smuggling to Libya.³

The Alice in Wonderland Paradox. This refers to building the picture. Satellites cannot see everything, especially at sea. We all remember the tragedy of Flight MH370. We all have sensors, eyesight, radars, ARS [advanced radar sensor], and cover several areas. We all have different national maritime security organizations, navies, coast guards, border forces, customs. Sometimes the information we have is sensitive, legally and commercially speaking. How can we best overcome these barriers, changing our fragmented pictures to a unified picture of all maritime activity, in order to protect freedom of navigation?

The Godzilla Paradox (or Quality versus Quantity). More advanced technology, fewer ships—is that the inescapable horizon? Should warships be designed with maritime security in mind? Should specific sea lanes be protected and patrolled, like the Internationally Recommended Transit Corridor in the Aden, or should we focus on the littoral? Would choke points be better defended from land? We all have in mind the example of the Strait of Malacca.

Terrorism. What is your current perception of terrorist risk against ships in the high seas, in the littoral? What effect do drug seizures have on terror? Is it direct, is it indirect? Does catching weapons at sea make any difference?

As you can see, there are many questions, but so little time. Maritime security is an evolving subject, but the answers we're seeking in this panel have very practical implications for the lives of many. We have a duty to think about them and to try hard to resolve them. We need to look at our navies going beyond war-fighting responsibilities and to complex constabulary duties.

A former commander of the [Border Protection Command](#) and, most recently, Commander, Australian Fleet—it's a real pleasure to welcome Vice Admiral Tim Barrett, Chief of the Royal Australian Navy, to discuss this subject.⁴

A MEANINGFUL CONTRIBUTION

Vice Admiral Tim Barrett, Australia:

Admiral Richardson, Rear Admiral Harley, I would like to pass on my thanks, as every other speaker has, on behalf of my delegation, for the opportunity to be part of the International Seapower Symposium—my third, I now discover.

I've been asked to briefly discuss cooperative strategies and interoperability, and how we collectively address these aspects for emerging challenges.

Australia's Strategic Context. I'm going to show a uniquely Australian perspective that I hope will lead to questions and then answers to some of those paradoxes that

1. Refers to [United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances](#), done at Vienna, 20 December 1988, and entered into force 11 November 1990.

2. Refers to the [Agreement Concerning Co-operation in Suppressing Illicit Maritime and Air Trafficking in Narcotics and Psychotropic Substances in the Caribbean Area](#), opened for signature at San Jose on 10 April 2003.

3. Refers to [United Nations Resolution 2292 \(2016\)](#), adopted by the Security Council at its 7,715th meeting on 14 June 2016.

4. The Border Protection Command is now called Maritime Border Command.

were so eloquently [spoken of]. But I would like to start with a little bit of context around Australia and the circumstances as to the maritime challenges that we face.

Firstly, Australia is, indeed, the largest island nation in the world, with a coastline of more than 20,000 nautical miles, but with a population of only twenty-five million.

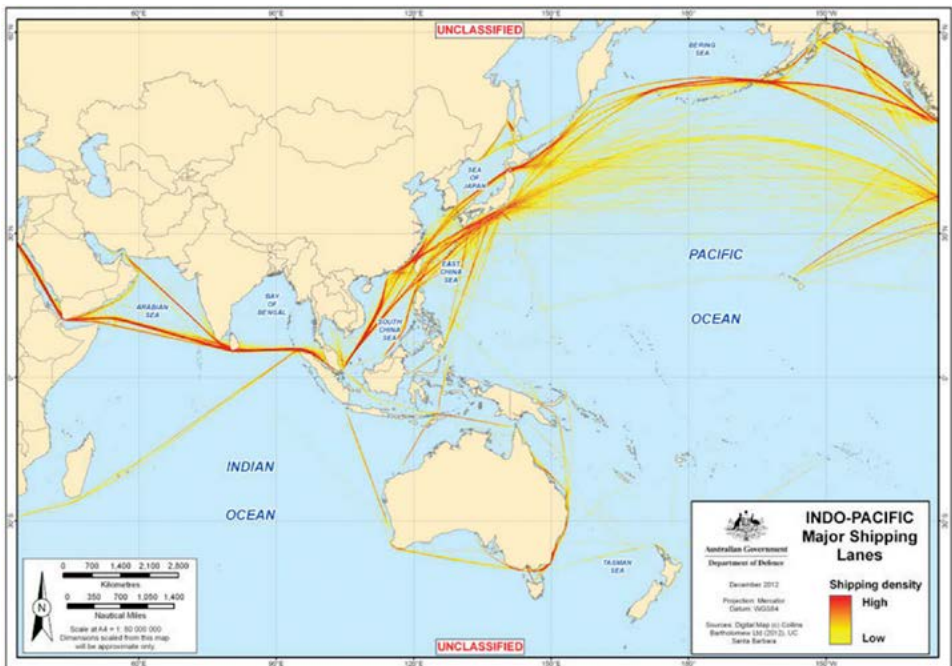
Ten percent of the world's sea trade passes through Australian ports. Australia's shipping task is about the fifth-largest in the world. This is easy to understand when considering our significant raw commodities, our major offshore oil and gas industries, particularly in the northwest, and the lengthy coastline that we have to protect.

We rely on the sea for about 99 percent of our exports for a substantial proportion of our domestic freight. About 90 percent of our trade by volume, about 60 percent by value, comes by sea. Ninety-five percent of our communication—slightly less than the average for the world—comes by undersea cable.

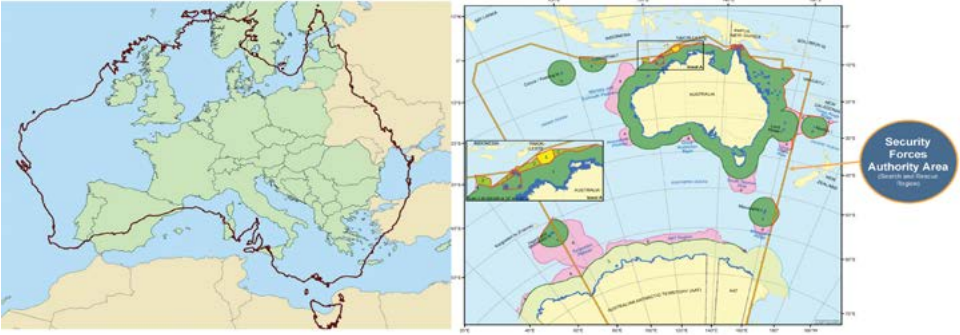
Australia as a Global Player. The Indian Ocean is now—as we heard from the Chief of the Naval Staff, Indian Navy—the globe's busiest and most strategically significant trade corridor, carrying two-thirds of the world's oil shipments and a third of the world's bulk cargo.

This is very important because the broader Indo-Pacific region—from the Indian Ocean to the Pacific Ocean connected by Southeast Asia—is central to Australia's national security and economic prosperity.

We are a large country [with a] small population. We must think big about our challenges. Australia has a significant maritime responsibility for an area of the world's oceans twice the size of our vast landmass. It's about fifty-four million square nautical miles—about 10 percent of the world's area—when we look at our search-and-rescue responsibilities and our security forces' authority area.



The Indo-Pacific region is central to Australia's national security.



Australia: large country, small population, big maritime responsibility

As an island nation, Australia's strategic thought is profoundly shaped by the maritime environment. It connects us to the world, and the world to us. But we understand that this environment is shared, a global commons where we all share responsibilities. That is why cooperation in this environment is so important. It's not a choice—it is essential.

But what are the challenges? We have discussed some of them this morning, but let me just talk through the usual suspects:

- Transnational migration
- Climate change
- Proliferation of critical seaborne trade, which may lead directly to terrorism
- Criminal trade
- Uncertainty generated by regional disputes
- Threats of state-based armed aggression.

Now, these issues are not unique to Australia. I'm not here to say that. All coastal states or island nations host similar concerns, in varying degrees. But in Australia's case, the combination of these factors, and, ironically, the relative isolation we have Down Under, have driven a strategic outlook that has Australia committed to a role in the international arena, with the navy an ever-increasing part of that role.

Australia's Defense White Paper. This year, the Australian government released its [defense white paper](#) to explain how it is investing in defense capabilities to strengthen its security in an increasingly complex strategic environment. This defense white paper sets out a comprehensive, responsible, long-term plan to enhance Australia's defense capability, deepen our international security partnerships in support of shared security interests, and collaborate with industry partners to support our nation's security.

The white paper has cemented our future force structure, while providing a new emphasis on industry to support naval capability through a continuous shipbuilding strategy. The paper has set the basis for how defense is to move forward: principally, this is the defense of Australia and our national interests and establishes our meaningful contribution to nonlethal effects of creating stability in the region.

This will manifest itself in greater humanitarian assistance and disaster relief capability within our region. We recently sent our newest ship, an **LHD** [landing helicopter dock], to Fiji to assist in a crisis, following a cyclone that went through that region.

We'll engage more frequently, and on a larger scale, in international military exercises. Many of the navies represented here have just finished RIMPAC. We'll also be extending the range and frequency of our international engagement. Australia's international engagement is an important part of the government's approach to building international partnerships, which includes trade, diplomacy, foreign aid, and economic capacity building in a range of government and nongovernment sectors.

Defense will increase its investment in international engagement over the next twenty years to help reduce the risk of military confrontation, build interoperability with key partners, and improve the coordination of responses to shared international challenges, including terrorism and humanitarian assistance.

Our Defense Cooperation Program, part of this international engagement, currently provides defense assistance to twenty-eight countries in our region. It will be enhanced in the future to build the confidence and capacity of our important regional partners.

I use one small example, the Pacific Maritime Surveillance program, where we will replace a successful patrol boat program with new, enhanced forty-meter patrol boats. We are building twenty-one of these patrol boats for our Pacific partners.

The choice to cooperate and to collaborate, to collectively and consistently maintain good order at sea, is a choice to preserve and promote the security and prosperity of all nations.

—Vice Admiral Tim Barrett,
Australia

We're not just providing patrol boats. We also will provide maritime surveillance advisers, all maintenance, and refit for those vessels for the period of their lives. We are doing this so that they can maintain their own maritime security. More importantly, it's about persistent support, not just occasional support.

The navy will participate more regularly in multinational exercises, and overseas presence of defense personnel will gradually increase over time. These are all measures we

feel are distinctly important within the new white paper. This includes making effective and meaningful military contributions to strengthen our regional and international partnerships and to meet shared security challenges.

Our consistent regional engagement will help the Australian Navy transition to a task group-oriented navy. This will better prepare us to operate in a combined force with like-minded nations and to operate more effectively across the region.

RIMPAC, as I just mentioned, is an excellent example of one of these international engagements. It reflects the closeness of our alliance with the United States but also the strength of our relationships with other regional partners. This year, the Australian Navy committed a greater tonnage to RIMPAC than ever before. International exercises are vitally important for us, particularly because they prepare us well to contribute military capabilities to coalition operations that support our collective interests in a rules-based order.

As part of defense white paper's strong focus on shared security challenges, the Australian defense force will be undergoing a major investment to modernize and enhance the potency, range, and capability of our maritime forces. For the Australian Navy, this will include a new generation of submarines, surface warships, surveillance

aircraft, and support aircraft. All of this has been agreed to by government—to a surprising outcome for many.

There will be more emphasis placed on joint and combined force operations. It will bring together different land, air, sea, intelligence, electronic warfare, cyber, and space capabilities, so the Australian Defense Force can apply more force, more rapidly and more effectively when called on to do so. It will ensure that we are best placed to make a meaningful contribution to security and stability on a global scale, with long-range capabilities available for employment around the world.

Common Security Interests and Cooperation. As I said, the Australian government seeks not only to deter, deny, and defeat threats to Australia, it also recognizes the responsibility that we have to contribute to the global commons.

I am confident that the countries represented here share common interests in the maintenance of an international system, based on the rule of law—a rule of law backed up by dialogue and cooperation, and a transparent approach to strategic interests, particularly in the maritime domain.

With ever-increasing regional and global interdependence, no country—and we’ve heard this already—can alone solve the challenges to security, either across each other’s regions or across the globe. The concept of working together to provide good order at sea and protection is not new. But cooperation increasingly is becoming the normal mode of operations. It means that strategic dialogues—including the Western Pacific Naval Symposium, Indian Ocean Naval Symposium, ASEAN Defence Ministers’ Meeting—Plus [Experts’ Working Group on Maritime Security](#)—are all critical to ensuring we remain open, connected, and supportive in addressing our collective maritime security concerns.

Maritime cooperation is indispensable. It must be practiced, frequently and routinely, for it to be refined and enhanced. The habits of cooperation are developed over many years. It’s time that builds relationships and trust, which in turn enables more rapid and effective cooperation. Building mutual confidence, through transparent and predictable maritime arrangements, helps to overcome the risk of miscommunication and miscalculation.

The Australian Navy is committed in the years ahead to working ever more closely with other navies, as we collectively provide maritime security in our region and [around] the globe. We have the opportunities to build the habits of cooperation through routine activities, and not just when the emergencies occur.

The choice to cooperate and to collaborate, to collectively and consistently maintain good order at sea, is a choice to preserve and promote the security and prosperity of all nations.

Admiral Christophe Prazuck, France:

As I alluded to, a significant obstacle to building a maritime security picture is the diversity of actors and formats. Allow me to introduce the head of a navy recently responsible for such a complex task as organizing the littoral protection for the Rio Olympics—Commander of the Brazilian Navy Admiral Eduardo Leal Ferreira. He has had numerous commands, serving recently as director of the Ports and Coast Directorate and as commander of the 7th Naval District.

COOPERATIVE PARTNERSHIPS IN MARITIME OPERATIONS CENTERS

Admiral Eduardo Leal Ferreira, Brazil:

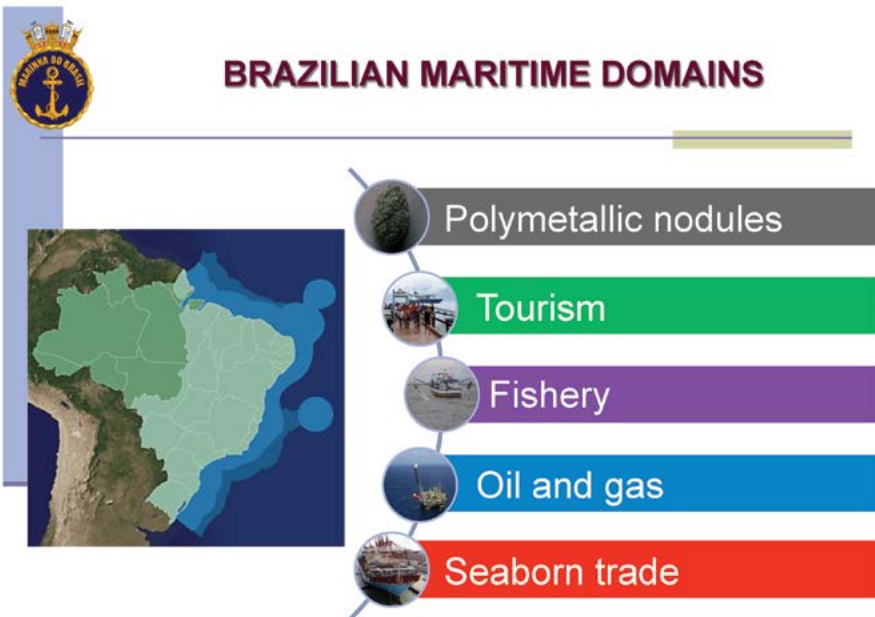
I thank Admiral Richardson for hosting us and for the warm welcome to Newport. I also thank Rear Admiral Harley for the organization of the symposium and the topics under discussion. I salute Admiral Prazuck, the moderator, and my colleagues, Admiral Zakauallah, Admiral Ibas, and Admiral Barrett.

It's a great pleasure to be in front of such a distinguished audience and to have the opportunity to share experiences about cooperative partnerships in maritime operations centers.

Brazil's Strategic Context. To understand what's coming next, it's important to put in context how we see the maritime surroundings in the South Atlantic. **The blue economy**, a field that considers the impact of the main activities of maritime, waterways, and port areas, is important to all countries present in this symposium. Several activities, such as those listed in the [below] graphic, provide us with great economic prospects.

As a case study, I will address the most relevant for Brazil: oil and gas exploitation and seaborne trade. Oil is one of the great treasures of the **Blue Amazon**.⁵ Brazil produces, at sea, almost 93 percent of its oil and 75 percent of natural gas from 814 off-shore wells, with a combined production of 2.6 millions of equivalent barrels per day.

More of this production now comes from the presalt fields, located more than one hundred miles from the coast and at sea depths over 3,000 meters, requiring high technology expertise.



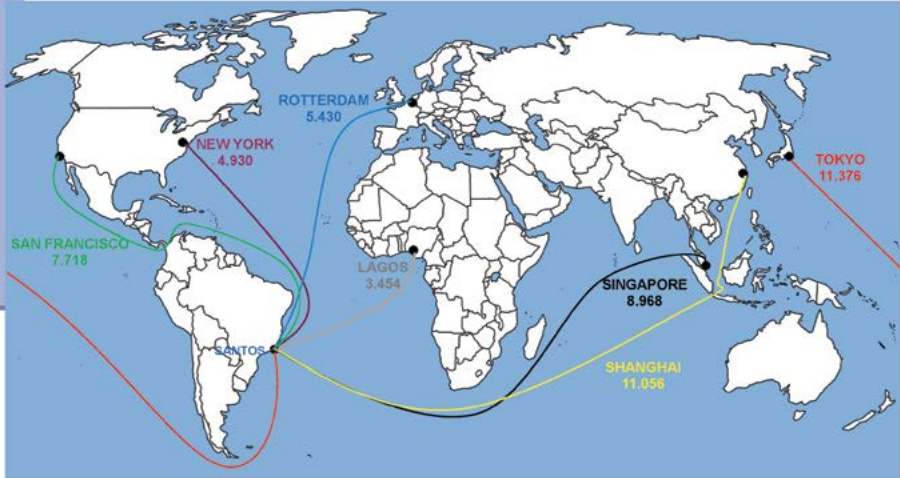
These activities provide Brazil with great economic prospects.

5. In addition to the link, see briefing by Admiral Eduardo Leal Ferreira, entitled "Protecting the Blue Amazon," presented to U. S. Naval War College, Regional Alumni Symposium, 13 May 2015.



BRAZILIAN MARITIME DOMAINS

South America so far . . . so close



Its distance from the main consumer markets impairs Brazil in the global process of trade but also protects it from major conflicts in other regions. It's a great paradox.

Another important component impacting the Brazilian economy is seaborne trade. Just a note: out of the ten billion tons of cargo that are transported per year in the world, one billion either comes or goes to Brazilian ports. It's a lot of cargo, although the value is not much. A lot of iron and grains.

Geopolitically, the quadrilateral—formed by the four main financial and production centers in South America: Sao Paulo, Rio de Janeiro, Buenos Aires, and Santiago—is far from the United States, Europe, and Asia. No one is as far away from those power centers as we who constitute the Southern Cone of South America. As Pope Francis said, “I come from the end of the world,” and so do we South Americans in the Southern Cone.

This requires us to have extremely competitive sea-based logistics. On one hand, the distance from the main consumer markets impairs us in the global process of trade. On the other hand, it protects us from major conflicts in other regions. It's a great paradox.

The national defense against foreign threats remains the core role of navies, but other factors and actors tend to gain relevance in an increasingly globalized and unequal world. In a wider sense, we may expect that situations that downgrade human security will require the presence of the state and deployment of naval forces.

Maritime Operations Centers. Overcoming the challenges in the maritime environment has no other solution but intense international cooperation. Traditionally, most of the navies and coast guards here have always acted in the areas of cooperation.

I will focus this presentation on maritime operations centers because that's the subject I'm supposed to speak to, although others are equally important. The core activities and benefits provided by the maritime operations centers is the appropriate

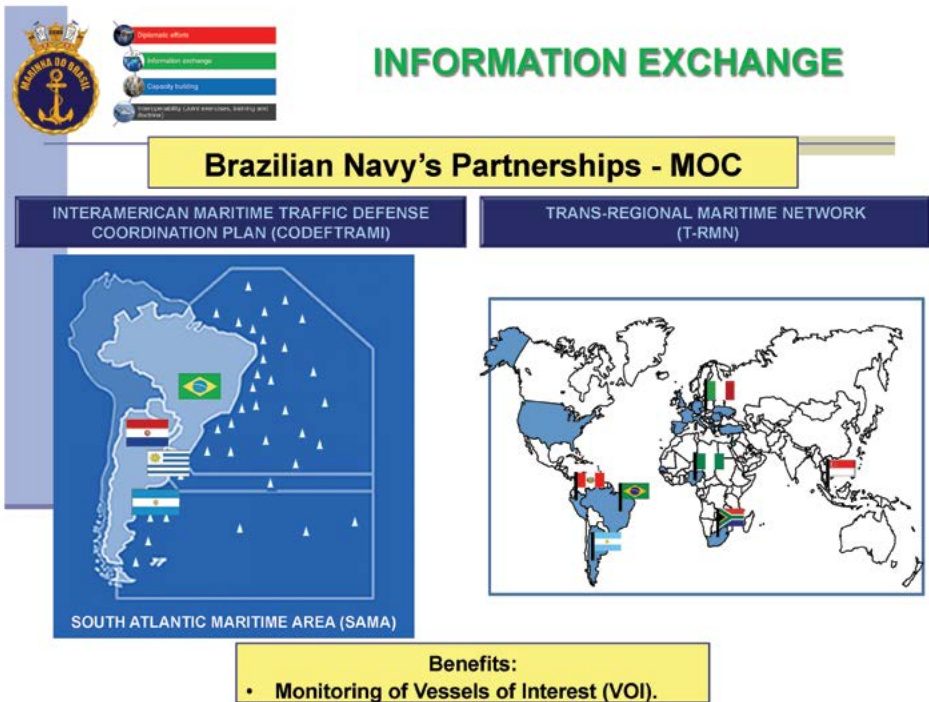
identification of vessels of interest; that will be shown in some of the maritime operations center initiatives in the South Atlantic.

The first one is the **Inter-American Maritime Traffic Defense Coordination Plan**, with the general purpose of establishing rules and procedures, consolidating the lessons about security, and defending the maritime traffic.

The area outlined in the [following] graphic is the **South Atlantic Maritime Area**, known as SAMA. We are very proud to say that it bonds Argentina, Brazil, Uruguay, and Paraguay in a solid and long-lasting arrangement that will celebrate its fiftieth birthday in 2017. It also is responsible for the standard procedures of naval control of shipping in the area.

The Trans-Regional Maritime Network was instituted to enhance the exchange of maritime information on transregional levels. Now, it's composed of thirty countries, such as all the member states of the wider Mediterranean community, plus six other countries: Argentina, Brazil, Nigeria, Peru, Singapore, and South Africa. This was possible by creating an interface that allows the integration of three different maritime traffic information systems of navies. Italy is the leader, and Brazil and Singapore also work as technical leaders.

The LRIT system provides global identification and tracking of ships. It's a very effective tool for naval control of shipping and search and rescue. The Brazilian Regional Data Center is part of this system, and now Uruguay, Namibia, and Paraguay are members of the center. We are working for the adhesion of other new navies, and we are able to offer technical and operational support to them.



South Atlantic Maritime Area (SAMA) bonds Argentina, Brazil, Paraguay, and Uruguay. The Trans-Regional Maritime Network is the integration of Brazil, Italy, and Singapore's maritime information systems.



-  Diplomatic office
-  Information exchange
-  Capacity building
-  Cooperation (Joint exercises, training and research)

INFORMATION EXCHANGE

Brazilian Navy's Partnerships - MOC

BRAZILIAN LRIT REGIONAL DATA CENTER EXPANSION

PACIFIC AND INDIAN OCEAN SHIPPING WORKING GROUP (PACIOSWG)



PARAGUAY
URUGUAY
NAMIBIA



AUSTRALIA
USA
CANADA
UNITED KINGDOM
CHILE
SOUTH KOREA
BRAZIL
SOUTH AFRICA
SINGAPORE
NEW ZEALAND
ARGENTINA
COLOMBIA
FRANCE
PERU

Brazil's other maritime information-sharing partnerships

Since 2012, the Brazilian Navy has been part of the [Pacific and Indian Ocean Shipping Working Group](#), which brings to all participants the opportunity to act in the regional working-level forum in reviewing NATO and other relevant [Naval Cooperation and Guidance for Shipping](#) doctrine.

As a consequence of the 2016 Olympic Games in Rio, the Brazilian Navy gained a new expertise, which allowed the exchange of maritime traffic information, with a strong focus in counterterrorism and preemptive actions. We had a very strong relationship with the United States Coast Guard, Netherlands Coast Guard, and the Maritime International Center in England. Working together, these provided us with a lot of information about vessels of interest. It was a very important tool we had during the whole process of the Olympic Games. Thanks to God, nothing happened.

Also in the Olympic Games, the Marines that belonged to the navy of Brazil had about eighty-nine suspicions of bombs. All were backpacks that tourists had forgotten somewhere in public, and we had to act as if they were bombs. The success of the event and high level of security we achieved says a lot about the importance of exchanging information between operational centers of international partners.

Enabling Interoperability. Interoperability is very important for maritime operations centers, so we do conduct some exercises with all these organizations. International exercises for the maritime operations centers are efficient tools for interoperability. In 2016, the Brazilian Navy took part in profitable ones like BELL BUOY, held in Portsmouth, UK; TRANSOCEANIC in Asunción, Paraguay; and CAMAS [South Atlantic Maritime Area Coordinator], which will be held in Uruguay.

Also, the last three years, we have taken part in the OBANGAME EXPRESS exercise with naval assets in maritime interdiction operations training, directly contributing to increased maritime security in the Gulf of Guinea.

Finally, despite the uncertainties, the Brazilian Navy is aware and watchful of its responsibilities in maintaining and developing a force capable of facing the challenges of the twenty-first century. We consider, as a capital factor, the continuity, and if possible, the expansion of a cooperative environment.

The Brazilian Navy believes that being prepared and building an environment based on partnership, trust, and information sharing is the best and maybe the only way to preserve the maritime domain as a safe environment. We believe that together we are strong. The sea has no borders. Instead of separating, it should link us together.

Thank you very much.

Admiral Christophe Prazuck, France:

Let me introduce Vice Admiral Ibas, Chief of the Naval Staff of the Nigerian Navy. His career includes roles as Naval Provost Marshal through Flag Officer commanding the Western Naval Command, making him the ideal expert for regional cooperation strategies.

MARITIME CAPACITY BUILDING

Vice Admiral Ibokete Ibas, Nigeria:

It gives me great pleasure to associate with this international gathering of astute minds and with this universal mission. I express sincere appreciation to the U.S. Chief of Naval Operations for inviting me to join other naval leaders at this forum. Thank you for the perfect hosting and the great care accorded my delegation since our arrival. I remain impressed with the level of interest generated by the International Seapower Symposium. The relevance of such an international forum of naval leaders derives from the imperatives in the global maritime space.

Firstly, the increasing opportunities provided by the seas and oceans have continued to attract diverse threats, as we have witnessed in recent decades.

Secondly, contemporary experiences indicate that the emerging trend of threats to peaceful and secure use of the seas and oceans is increasingly cross-border and transnational in nature. Inevitably, navies were called to meet the growing demand for operational collaboration and credible maritime policing capacity.

In this regard, I gladly identify with the theme of this symposium, “stronger maritime partners,” as well as the topic “maritime capacity building” I have been invited to discuss. In discussing the topic, I will share our experiences in maritime capacity building in Nigeria and, indeed, the Gulf of Guinea. They underscore how cooperative maritime operations could positively impact maritime security.

Strategic Frameworks for Cooperation. I start by acknowledging recent political-level efforts that have culminated in the development and adoption of strategic frameworks, such as [2050 African integrated maritime strategy](#), [Economic Community of West African States \(ECOWAS\) integrated maritime strategy](#), and [code of](#)

conduct concerning the repression of piracy and other illicit maritime activities in the Gulf of Guinea.⁶

These frameworks have facilitated cooperative capacity building with defined architectures, such as the zonal mechanisms for maritime security operations among the Gulf of Guinea states.

I also acknowledge the capacity-building effort of the friends of the Gulf of Guinea nations, particularly the U.S. government and U.S. Africa Command, and their faithful sustainment of the Africa Partnership Station and the annual iteration of EXERCISE OBANGAME EXPRESS.

On the part of the Nigerian Navy, I wish to restate our commitment to the aforementioned maritime security frameworks and associated capacity-building initiatives. In addition to playing a key role in the development of the 2050 Africa's Integrated Maritime Strategy and ECOWAS Integrated Maritime Strategies, the Nigerian Navy has been fully involved in the activation of the ECOWAS Pilot Zone E for maritime security operations, along with Benin, Niger, and Republic of Togo.⁷

Under the Africa Partnership Station, the Nigerian Navy has sustained its participation in the annual OBANGAME EXPRESS exercises since 2011.

Building Capacity in Nigeria and the Gulf of Guinea. In further consolidation of the gains of these engagements, the Nigerian Navy organized, in May 2016, a [Regional Maritime Awareness Capacity Conference](#) and its first [regional maritime exercise](#), essentially for the Gulf of Guinea navies, with an extended invitation to extraregional navies.

The productive outcome of the conference—in terms of commitment to capacity-building efforts as well as the desire among the Gulf of Guinea states to sustain such a forum—was well noted. For instance, I have been informed that member states and partners have increased practical commitment to meet capacity-building requirements for the Multinational Maritime Coordination Center, Zone E.

On the home front, the Nigerian Navy remains founded on the recognition of harmonized regulatory frameworks, closer collaboration, and operational coordination with other national maritime agencies and stakeholders.

For instance, the Nigerian Navy recently opened discussions with the [Nigerian Maritime Administration and Safety Agency](#) toward strengthening existing



Left: Snapshot of the 2016 Regional Maritime Awareness Capacity Conference in Nigeria. Right: Several vessels participated in the OPIA TOHA EXERCISE held in May 2016.

6. Also known as the Code of Conduct Concerning the Repression of Piracy, Armed Robbery against Ships, and Illicit Maritime Activity in West and Central Africa, Gulf of Guinea Code of Conduct, and Yaoundé Code of Conduct.

7. ECOWAS Pilot Zone E is detailed in *Gulf of Guinea Maritime Security and Criminal Justice Primer*, Appendix VII, p. 68.

collaboration on maritime domain awareness, information sharing, maritime law enforcement, and training. Both agencies are equally sustaining the drive for expeditious passage of the Anti-Piracy Bill by the National Assembly.

Similarly, the Nigerian Navy—in conjunction with ministries, departments, and agencies—has jointly developed a harmonized standard operating procedure for the arrest, detention, and prosecution of owners and crews of vessels that have infringed on national maritime laws.

Capacity building for maritime domain awareness in Nigeria also received a significant boost with the acquisition of a national network known as the *Falcon Eye*, complementing the U.S. government–assisted *Regional Maritime Awareness Capability* facilities.

Furthermore, the Nigerian Navy—while attending the Tenth Regional Seapower Symposium of the Mediterranean and Black Sea hosted by the Italian Navy in Venice last October [2015]—signed a note of accession to formally join the Trans-Regional Maritime Network. The Nigerian Navy hopes to benefit from induction [into] this large information source provided by this global maritime partnership to improve its domain awareness and positively impact good order at sea.

As part of an initiative to build local and regional capacity in shipbuilding, the Nigerian Navy has continued its construction program of seaward defense boats. The second indigenously constructed thirty-nine-meter boat was recently completed at the naval dockyard in Lagos. The naval shipyard in Port Harcourt has also completed the construction of model tugboats. Within the past year, the Nigerian Navy



Control center for Nigeria's Falcon Eye over-the-horizon maritime surveillance network



Nigerian-built seaward defense boats (left), tugboats (middle), and gunboats (right)

partnered with local shipbuilders to construct over eighty gunboats, all of which have been put into operational use.

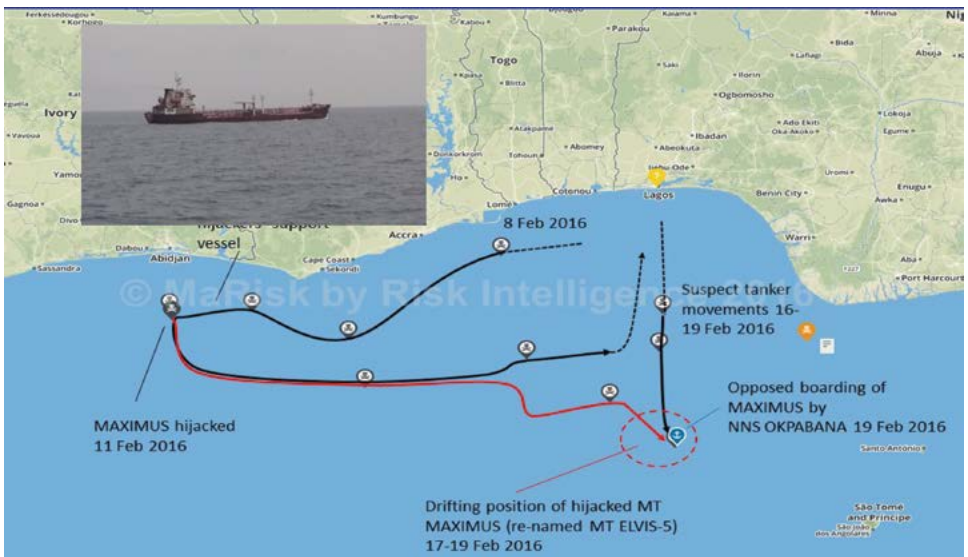
OPERATION TSARE TEKU. As we intend to sustain the budding, local capacity of shipbuilding, the Nigerian Navy remains open to partnership within and outside the Gulf of Guinea toward developing more cost-effective construction capacity, including joint production with neighboring Gulf of Guinea navies. All efforts have combined to deliver improved offshore security at a reduced cost.

Regrettably, the renewed spate of militancy, laced with outright criminality in the Niger Delta area of Nigeria, has continued to pose a significant threat to shipping and oil and gas infrastructure. The upsurge in attacks on shipping and offshore gas installations in the first quarter of this year was particularly worrisome.

In response, the Nigerian Navy activated an antipiracy operation, **OPERATION TSARE TEKU**, in April 2016. Consequently, the number of attempted offshore attacks remarkably declined, much as the number of successful attacks also declined, significantly.

A high point was the **rescue of MT Maximus**, manned by eighteen crew members, laden with over 4,000 metric tons of automatic gas oil, and hijacked by pirates in Côte d'Ivoire waters. After three days of tracking with indispensable assistance from our partners and the Regional Maritime Awareness Capability systems, the criminal convoy was intercepted at the fringes of São Tomé and Príncipe waters, with six pirates arrested and one killed in action.

The major lesson from the operation is that there is an increasing need to develop capacity for information sharing, security awareness, and joint coordination with the oil and gas installations and vessel owners. Specifically, the experience brought to the fore the [importance of] profiling vessels, owners, and crew. This line of effort has assisted greatly in mapping and checking the trend of criminality and complicity of crew members in some of the attacks.



The hijacked MT Maximus was tracked by Nigeria's Regional Maritime Awareness Capability system, enabling rescue by the Nigerian Navy.



The recent establishment of Nigerian Navy houseboats patrolling key choke points in the Niger Delta has helped stem the tide of attacks, crude oil theft, and illegal bunkering in that area.

The difficult terrain in the Niger Delta, characterized by thousands of nonnavigable creeks, has evidently challenged our capacity to contain the upsurge in sabotage, theft, and damage to the network of pipelines and hydrocarbon infrastructure by militants and criminal groups. Nevertheless, the recent introduction of a choke point management and control concept by the Nigerian Navy, with prepositioned houseboats and organic gunboats along key routes in the area, has helped in stemming the tide of attacks, crude oil theft, and illegal bunkering.

Similarly, the joint operations in the Niger Delta have been restructured for a maritime lead, with stronger synergy amongst the cooperating agencies. These efforts are continuously complemented by political-level engagements with the Niger Delta communities and associated groups. The resolve to contain the challenges in the Niger Delta remains a key priority of the government at all levels. From a strategic perspective, the Nigerian Navy is determined to grow its capacity, through rapid expansion of the choke point concept.

I should, at this juncture, express appreciation to the U.S. government for the continued support through the transfer of offshore patrol vessels to the Nigerian Navy under its [Excess Defense Articles program](#). The additional collaboration on technical support with the [U.S. Naval Sea Systems Command](#) is a particularly welcome development, which the Nigerian Navy is committed to sustaining. I also wish to indicate the readiness of the Nigerian Navy to continue and deepen its participation in the [U.S. International Frigate Working Group](#).

No Other Viable Option. On a concluding note, no opportunity must be missed to emphasize the imperative of capacity-building programs at national and regional levels among the Gulf of Guinea states.

As recent forecasts suggest, there will be no letup in the foreseeable future of the stringent economic conditions in the Gulf of Guinea region. The combination of asset inadequacy, maintenance cost, and persistent maritime threats will leave local states and their navies with no viable option other than prudent capacity building on a collaborative model.

Among other expectations, I look forward to efficiently strengthening zonal maritime security architecture, patrol capability, maritime domain awareness expansion, improved information sharing, and profiling of maritime activities. Achieving these will require renewed and sustained capacity-building efforts. They must emphasize coordinated, synchronized, cross-organizational, and multinational

cooperation among relevant regional and international actors and partners, with asset and burden sharing being a principle.

Once again, I thank the organizers of this symposium for inviting me and providing a valuable opportunity to share thoughts and experiences with other naval leaders.

Admiral Christophe Prazuck, France:

The Pakistan Navy has commanded [Combined Task Force 151](#) six times and [Combined Task Force 150](#) nine times, contributing one or two ships every year. The Pakistan Navy presently commands Combined Task Force 150, and has since the beginning of August 2016. It will relieve the French of command of the Combined Task Force in August 2017.

It therefore gives me great pleasure in introducing Admiral Zakaullah, Chief of the Naval Staff of the Pakistan Navy. As former commander of the [25th Destroyer Squadron](#) and Combined Task Force 150, he is particularly well placed to discuss our subject.

COOPERATIVE STRATEGIES AND INTEROPERABILITY: ANTIPIRACY

Admiral Muhammad Zakaullah, Pakistan:

Admiral Richardson, Admiral Harley; heads of the navies, coast guards, and maritime security agencies; ladies and gentlemen. It is an immense pleasure to be amongst this distinguished gathering. I thank Admiral Richardson for inviting me and affording me this opportunity to share my thoughts with this august gathering.

Mr. Chris Trelawny very comprehensively covered various aspects of maritime security, including piracy, which is my subject. However, I shall attempt to give my perspective.

Due to the unique features of freedom of navigation and right to innocent passage, both enable opportunities as well as threats, especially transnational crime at sea. Benefiting from this global common depends on the effectiveness of our individual and collective efforts to maintain good order at sea. Hence, collaborative maritime security has emerged as a compelling matter for all nations.

I shall focus on one such transnational crime, that being piracy. Countering it is an excellent example of cooperation, based on singleness of purpose. The results speak for themselves.

Piracy Statistically Declining. Talking about Somalia, in a matter of a decade, the pirates that audaciously threatened the lifeblood of the global economy—its maritime commerce—have been forced to scale down. However, increased hijacking of regional shipping, about five dhows in 2015, could be an indicator of change in pirate strategy.

Similarly, in Southeast Asia, collaborative efforts by regional partners have effectively controlled the outbreak, although sporadic incidents continue to be reported.

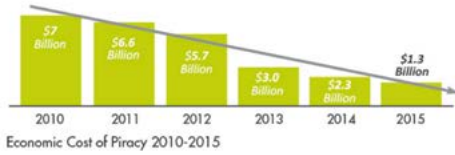
Notwithstanding phenomenal success in these two regions, continued piracy-related incidents rears the specter of an underlying malaise. A matter of particular concern is the comparatively larger number of piracy incidents on the West African coast.

I am keenly aware that everyone in this august house is well informed of the genesis of the problem and cognizant of the popular argument that we are merely fighting the symptoms and not dealing with the root causes effectively.

Notable Trends in 2015 (by region)

Western Indian Ocean Region

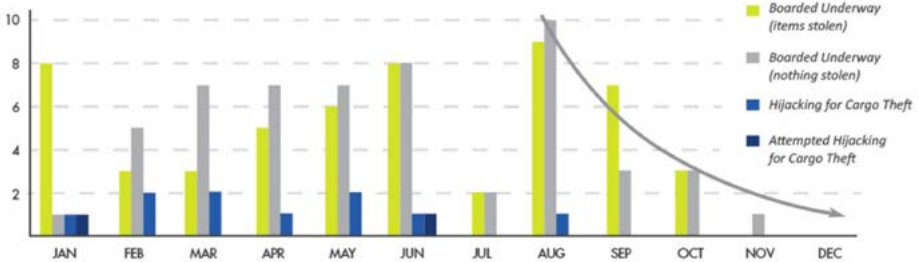
Despite reduced spending, international efforts in the Indian Ocean continued to suppress major attacks. However, several recent hijackings of regional vessels could signal an increased threat.



The State of Maritime Piracy 2015 – Report by OBP

Southeast Asia

Cooperative regional measures in Southeast Asia resulted in steep declines in piracy attacks in the second half of 2015.



The State of Maritime Piracy 2015 – Report by OBP

Graphics from Oceans Beyond Piracy’s report, “The State of Maritime Piracy 2015” illustrate the recent decline of pirate attacks as a result of international efforts.

There is also increasing evidence that pirates continue to maintain their capability as well as their intent, which are main ingredients in the threat matrix. I will, therefore, argue in today’s talk that unless we fully imbibe the lessons of the success of global antipiracy efforts and evolve a sustainable, broad-based mechanism, piracy, being a cyclic phenomenon, is bound to resume again.

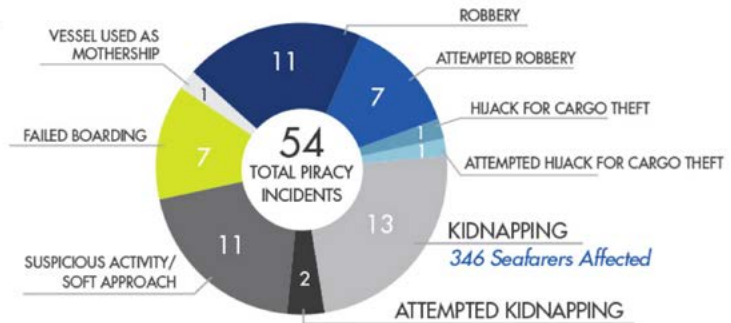
History is a witness that piracy has always receded when tackled decisively. In the current era, effective collaborative maritime security initiatives have resulted in a significant reduction in piracy. Core reasons for that success are naval deployments, self-defense measures adopted by the shipping industry, prosecution of piracy suspects, and declining support by local communities.

I shall now touch upon some of the latest trends. According to a recent [International Maritime Bureau report](#), in the first half of 2016 piracy and armed robbery at sea have fallen to their lowest levels since 1995. The high-risk area in the Western Indian Ocean region was reduced in December 2015. Merchant vessels are again using prepiracy shipping routes close to the east coast of Africa. This also corresponds with a sharp decline in the use of armed guards by merchant ships. The presence of coalition and independent deployments engaged in counterpiracy activities decreased by 15 percent during 2015.

Gulf of Guinea

The Gulf of Guinea is the most dangerous region for seafarers with a rise in violence across the year and an increase in kidnap-for-ransom in the fourth quarter of 2015.

Piracy Incidents in 2015 (by type of incident)



The State of Maritime Piracy 2015 – Report by OBP

This graphic from Oceans Beyond Piracy's "The State of Maritime Piracy 2015" illustrates the dangers posed to seafarers in the Gulf of Guinea.



Piracy – In Perspective



Conditions that incubate and nurture piracy

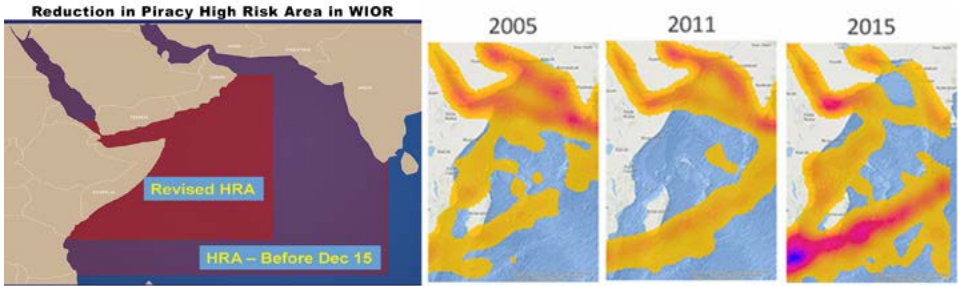
- Favourable geography
- Political instability ashore
- Socio-economic deprivation of the coastal societies
- Weak law enforcement both ashore and at sea
- Maritime insecurity
- Nexus of Kings Pins with international crime syndicates

Conditions that nurture piracy

The Gulf of Guinea has seen the rise of piracy and violence across the years. However, increased law-enforcement patrols by regional navies have forced pirates to expand their range, beyond coastal waters, in search of targets.

Dormant Piracy. It is likely that international naval deployment will further drop. Presumably, compliance with best management practices by international shipping will decline, owing to heavy costs involved.

The drop in the naval deployment is a cause of concern, and carries the risk of resurgence of piracy, in some form or other. In the words of Puntland Counterpiracy Minister Mr. Abdullah Jama Saleh, "The pirates are not dead, but dormant. So they come, definitely . . . straight away. No question about it [as soon as the warships leave]."



The high-risk area of the West Indian Ocean Region was reduced by late 2015.

Another cause of concern has been the reported apprehension of Somali fishermen. They still regard the international naval forces deployed off Somalia as being in league with and protecting the interests of IUU fishing, as the naval vessels do nothing against IUU in Somali waters, in their perception.

Another challenge is sustaining successful international initiatives, forging efforts on multiple planes like the [UN Contact Group on Piracy Off the Coast of Somalia](#), the Djibouti Code of Conduct, and ReCAAP.

Expand the Mandate of Cooperative Maritime Forces. The decline in piracy incidents around the Horn of Africa has triggered a debate on extending the contact group's functional and regional domains, or altogether transferring its functions to other institutions. I emphasize that not only continuing the contact group, but also its functional extension, would act as strategic messaging in the fight against piracy.

I reckon that there is also a need to institute a more robust and flexible collaborative mechanism for major maritime forces and states to preclude resurgence of piracy and, should piracy reemerge, allow a rapid increase in force flow to effectively contain its threat. A possible solution could be to build on the collaborative arrangements among various maritime forces and independent deploying ships, providing an enhanced mandate for prevention of IUU fishing and other transnational maritime crimes.

I shall contextualize the Pakistan Navy's role in maritime security and antipiracy operations. Besides conducting regular counterpiracy patrols in our exclusive economic zone, the Pakistan Navy has been part of Combined Task Force 150 since 2004 and Combined Task Force 151 since 2009, conducting operations as part of [Combined Maritime Forces](#).

Multipronged Strategy Needed. To comprehensively eradicate piracy, it needs to be tackled at the grassroots level. To do so, the international community needs to adopt a multipronged strategy that addresses sociopolitical issues on land, maintains deterrence at sea, enacts requisite legislation, disrupts the financial trail, and undertakes efforts to build on the existing collaborative maritime forces and structures, with enhanced mandates to prevent transnational maritime crimes.

The trend of piracy, though statistically declining, still remains a reckonable threat. While the grassroots remedies will take time, the world navies need to continue playing their roles in deterring and suppressing piracy, and maintaining good order at sea.

I assure and renew Pakistan's continued commitment for combating piracy for the common good of the world community.

DISCUSSION

Question:

I really appreciate the admiral's leadership and efforts to keep open and stable seas. I am very impressed with the presentation from the Australian Navy. Your navy continues to contribute to the peace and maritime security in both the Pacific Ocean and the Indian Ocean as well, conducting several other missions and hosting several joint exercises. For example, your country dispatches ships and aircraft for counter-piracy and antiterror operations, as well.

How do you prioritize missions with restrictive personnel, equipment, and resources? Your country's missions are increasing now. You face some challenges now.

Response:

How do I prioritize, was the question. I ask the government for more ships is my answer. Sometimes it works, sometimes it doesn't.

I use that question to express a little more of what I was saying. There is a view that a nation and a navy would seek to prioritize only within its borders, only within its region. The reality is that for us to have an effect globally, we have to contribute further afield rather than only our own waters. In Australia, that is a distinct government policy.

So, I regularly confide with our government as to what their priorities are, alongside all of their other attributes for national interests—their diplomatic, economic views. We direct the actions of our navy around those stated government priorities.

But what it does mean, to some extent, is taking the same ships, preparing our crews to do a number of different missions, regularly having ships prepared to deploy, and being capable of conducting what might traditionally be constabulary roles. So, I have sailors who are proficient throughout the spectrum of their operations. That is one way I can meet government's changing priorities, rapidly.

It comes at a cost. It comes at a cost of individuals who have to train across a raft of skills. It comes at a cost of keeping a level of ships, a level of preparedness, for longer periods of time. My constant battle is to remind government that it costs them critical resources that they have to provide.

So, the answer is quite simple. I always ask for more, but then I have straightforward discussions with my government as to what can be achieved against their national interests.

Question:

I'm really interested in the antipiracy discussion. Admiral Zakaullah, you mentioned that one of the solutions is to tackle piracy at the grassroots level. I want you to elaborate more on that. From my own experience back home, I agree with you. We need to tackle piracy at the grassroots level. Very, very important. From the quote you gave us, pirates are not dead. They are dormant.

In the Gulf of Guinea, they are not dormant. They are not dead. They are active. If piracy is dead in the Gulf of Aden, it is still active in the Gulf of Guinea. Now what happens is, once ships leave, [the pirates] come back again. But for us, we don't have the ships. I'm amazed at the statistics you have given about the Gulf of Guinea. It is clear you will continue to have such statistics, as long as we don't have ships.

We are talking of partnership, collaborative effort. It is very, very clear from all the discussions we've had so far that the collaborative effort is not evident in the Gulf of Guinea. And as long as we have that, it may be far away from getting a solution.

That is why I agree with you. One of the ways for us to tackle piracy in the Gulf of Guinea is to deal with piracy at the grassroots level. I want this gathering to think of how to deal with piracy at grassroots level.

We have to take the war to them. We must look at ways of getting them to stop in the backwaters and preventing them from going to sea. If that can be achieved, we can begin to see a sharp drop of piracy in the Gulf of Guinea.

From the Niger Delta map, you saw we have close to 5,000 creeks. That is challenging, and that is why I want to make an appeal. For us, the assistance we are looking forward to is not just in capital ships, but craft that can help us contain pirates at the grassroots level. We are looking at hovercraft and pontoon vessels that can operate in the creeks. These are some of the challenges we face.

We can increase our efforts that address pirates at the grassroots level. I assure the audience and the world that we can bring down piracy in the Gulf of Guinea.

Response A:

I made the point about the Gulf of Guinea a little mild. From the literature, it is becoming apparent that it is the most dangerous place. It is always coming up as the most dangerous place for seafarers, but there is very good effort by the regional countries.

I agree, it is a very serious problem. A comprehensive solution needs to be worked out. Certainly, the area needs the support of international organizations as well as the international community, which is in a position to provide a supporting hand. I totally agree. Capacity building is required.

As to what do I mean by addressing the issue at the grassroots level, I mentioned a number of things I said act as incubators for piracy. Those are the conditions we have to tackle, which include the socioeconomic aspect, the political aspect, the insecurity in that area. So, all those things have to be addressed, but that is easier said than done. It takes a lot of effort. Naturally, nations have to get together and do that in the long term. But there is no easy solution. If it were easy, piracy in the Gulf of Guinea and Gulf of Aden could have been taken out at the grassroots level.

Response B:

I thank the speakers of this panel on cooperation strategy. What we can note is that the objective of cooperation takes into account, to a certain extent, the security interests of the various countries. That's a given. But sometimes we forget the interests of the least-developed countries, it seems.

In the Mediterranean region, we talk about the western basin or the northern shore, but we never talk about the southern shore of the Mediterranean, and we consider it, at the same time, a source of threat and insecurity. We need to protect these areas to the benefit of all neighboring countries.

How can we improve cooperation amongst the various navies? How can we take into consideration the interests of developing countries, because they are actually not developed countries? How can we take their interests into account?

Response C:

Looking at the countries of the Gulf of Guinea, you'll agree that they all have the same economic problems, same infrastructural problems, as well as socioeconomic and political problems. What are we looking for from some of our partners out there?

The last question addressed part of what you just mentioned. In the East, in the Horn of Africa, the challenges we had in keeping the sea lines of communication open were what prompted interests. In the Gulf of Guinea, we also have the interests of other partners there—the oil and gas infrastructure, which belongs to those who have invested there heavily. It is left for these interests to be protected. If you are to do that, it means you have to provide enablers for the countries of the Gulf of Guinea. They don't have the means to protect the oil, gas, and other interests within the Gulf of Guinea.

In terms of building capacity, we've had several exercises that we have talked about and that are being facilitated by partners. A continual aspect of this is something that we're looking at from other partners we've had, even support by way of the Excess Defense Articles, [a U.S. program] that has been made available to countries. These are the areas that we believe can facilitate the operations of those countries.

I also want to talk on maybe providing training and training support, as well as areas of human capacity building of which there are many. There are really a lot of areas [in which] the developing countries of the Gulf of Guinea can be provided support to enable them to carry out their mandate of keeping the maritime space for legitimate economic business.

Response D:

I was just going to refer to that example in my presentation under a defense cooperation program. I mentioned persistence, not just occasional support. That is, providing it even when the crisis doesn't exist to ensure that the receiving nation is able to react when the crisis does eventuate.

The point is, under a defense cooperation program, Australia is providing patrol boats and also a package of aerial surveillance that goes with that to a number of Pacific nations we work with very closely. The engagement is to provide the vessel but also a package of maritime surveillance advice and an enduring level of support for that vessel throughout the life of that vessel, which goes to about twenty years.

It needs to be a comprehensive support. It needs to be relevant to the need. Importantly, it needs to abut the jurisdictional requirements that have been set in the country that's to receive it, so they can actually use those vessels to operate under their own domestic laws. It needs to be a comprehensive package, rather than just a nonpersistent, isolated incident. I agree with you that in some cases it needs to be the right support and doesn't only need to be provided when there is a crisis.

Response E:

I think that any partnership has to be a win-win game. Once two different partners decide to work together for some goal, each one has to have a clear idea of what they want from that partnership.

The problem is when third parties, who are not directly involved in a partnership, may be affected by what's happening. That's when things like what you said

may occur. Countries that are not directly involved in a certain partnership end up being affected by what's happening. I think this must be considered in any partnership.

When you decide to establish an operation or a coalition for some of the threats that we have, we have to consider that other countries, which are not directly involved in that operation, may end up being affected. That must be considered. They must be sort of put into the game, in order to avoid the prejudice that we end up having.

Question:

As mentioned by Admiral Zakaullah about the piracy and the operation against the piracy, as you know, piracy is becoming less [frequent] this year, almost zero. But, as they say, it has not died. It is still on the shore waiting for international navies or antipiracy operations to head back home.

I would like to share with my colleagues and also ask their opinion. As you know, piracy is not active on the coast of Somalia. But terrorists are extremely active from the south to the middle of Somalia. They have started moving from the south all the way down to the middle of Somalia, especially in Puntland, by sea.

There is a maritime authority in the Horn of Africa. The real threat today is terrorism. It is becoming bigger and very active. [Terrorists] can recruit, giving a lot of money, and they can send [the recruits] to sea to attack the ships, not for money or ransom but to make explosions against the ships.

I would like to ask the admirals on the panel, what do you think the best strategy is to stop the terrorists that may come soon?

Response:

I agree with you that it looks like a zero level of piracy. But the threat is still there, and can reemerge any time. In fact, even the International Maritime Bureau has been cautioning that we should continue to be careful, because even one successful hijacking or pirating of a ship could actually give an incentive, and they could become active again.

But as far as the terrorism aspect is concerned, I suggested that we need to broaden the demand. Forces can be carrying out maritime security operations, not only focusing on piracy. Terrorism comes into it. Illegal, unregulated, and unreported fishing comes into it.

But that is not an easy thing to do, because the mandate will have to come from a concerned UN instrument. The mandate also has to be accepted by the players who are operating there, and the mandate also has to be agreed to by the concerned nations. The solution I proposed is whatever forces are operating in the area need to collaborate with the littoral states and have a bigger mandate to be able to check all the illegal activities in that area.

Utilizing International Law to Enhance Transparency

Admiral Nirmal K. Verma, Indian Navy (Ret.)

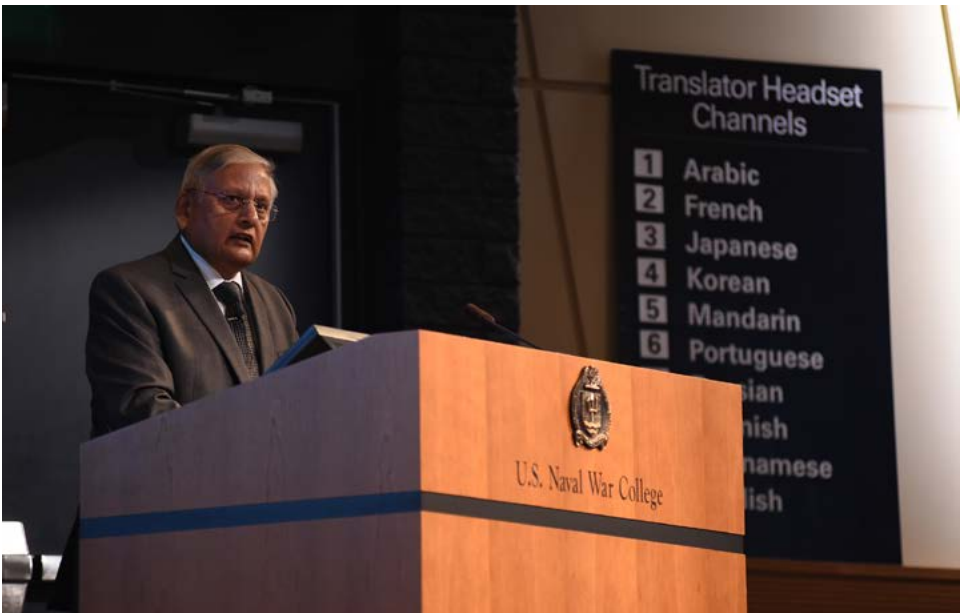
CNO Distinguished International Fellow

Dean Thomas Mangold:

Our second keynote speaker is Admiral Nirmal Verma, Indian Navy (Ret.). The Admiral is a true gentleman and Renaissance man. He's no stranger to most of the folks in the International Seapower Symposium. He has participated here before.

Admiral Verma had a brilliant career in the Indian Navy for forty years, culminating in Chief of the Naval Staff. After retirement, he became a diplomat in Canada for two years as the [High Commissioner of India in Ottawa](#). Then, we are very pleased to say, he came back to the Naval War College. He's a class of '93 Naval Command College graduate. Here he assumed the position of Chief of Naval Operations Distinguished International Fellow.

As our fellow, he has had a chance to research, teach, write, and serve as a mentor to both international and American officers. We've been very blessed to have Admiral Verma on the staff.



CNO Distinguished International Fellow Admiral Nirmal K. Verma (Ret.) addresses international norms and standards.

Admiral Nirmal K. Verma (Ret.), India:

Admiral John Richardson, United States Navy Chief of Naval Operations; chiefs of navies and coast guards; ladies and gentlemen: I am acutely conscious of the fact that I address an audience that represents a cumulative experience of hundreds of years at the apex level of steering its respective navies and coast guards. Your leadership and efforts make the global maritime commons safer in the face of complex security challenges.

I'm grateful to the International Seapower Symposium for giving me this opportunity to share some thoughts on international norms and standards. They are built on the foundation of international law, which is indispensable in our quest for transparency and the conduct of maritime security operations. The following will be the focus of my remarks:

- History
- International law—interpretation and implementation
- Maritime security challenges
- International law and maritime boundary disputes
- International law—instrument for rule-based order.

HISTORY

International law emerged from an effort to deal with conflict. Some see it as beginning with the Peace of Westphalia in 1648, which asserted the “sovereign equality” of states, later followed by the rules for conduct of war, enshrined in the Geneva Conventions of the nineteenth and twentieth centuries.

The earliest maritime laws, dating back to the Roman era, essentially dealt with regulation of commerce. Later, medieval Europe witnessed claims over sea areas and the dictum “might is right” prevailed. The decline of city-states and the emergence of larger empires signaled the growth of ever-increasing claims.

The first recorded instance of arbitration for conflict prevention is the Treaty of Tordesillas, brokered by Pope Alexander VI in 1493. The treaty divided the world, including the oceans and navigation routes, between the two Catholic empires of Spain and Portugal. Then, in 1603 a Dutch court, adjudicating on the capture of Portuguese merchant ship *Santa Catarina* by a Dutch privateer, sought the advice of a bright young lawyer, Hugo Grotius, to deliver his opinion on the morality of this action. Drawing on principles and writings stretching back to biblical texts, the assessment of Grotius, in essence, espoused the liberty of the oceans and limits to the jurisdiction of coastal states. Grotius’s thesis, published later as a book, signaled the beginning of a long debate on the law of the sea.

INTERNATIONAL LAW

International law is essentially based on treaties and customary law. Treaties are agreements between states that are legally binding, while customary law is derived from continuous practice of states and a sense of legal obligation on their part.

There is a third body of law, referred to as “soft law,” that has developed rapidly over the last few decades. The fact that it is not legally binding is perhaps its

strength, as states are often apprehensive of the provisions of a treaty on their sovereign rights. By declaring to abide by soft-law provisions, a state becomes acquainted with the embodied standards, while there is time and room for discussion and consensus formation.

Once states develop this confidence in the provisions of soft law, it is possible that it may later be accepted as a treaty, or at least take the shape of customary law. Hence, the option of soft law could be considered an interim first step when there is urgency in addressing a complex problem that requires multilateral consensus on legislation. States, particularly smaller states, have long relied on treaties and other international agreements and a rule-based order for their security.

We could also have other legal mechanisms like bilateral, regional, and international frameworks, apart from soft-law options like conventions, regulations, and guidelines for supporting maritime security and safety. These are equally important, considering the role they play in maritime governance, and lead to the creation of trust among nations and predictability in interstate behavior.

Yesterday we had an excellent presentation by Mr. Chris Trelawny, Special Adviser to the Secretary-General of the IMO, on IMO's wide-ranging measures for promoting maritime safety. I will, therefore, not be covering international ship and port-facility security, and the jurisdiction and responsibilities of the flag state.

INTERNATIONAL LAW—INTERPRETATION AND IMPLEMENTATION

Global institutions, set up over time to interpret international law in the maritime domain, include the [International Court of Justice](#) and the [International Tribunal for the Law of the Sea](#). For arbitration of disputes, there are options: the [Permanent Court of Arbitration](#) as well as the [Special Arbitration Court under Annexure VIII](#) of the United Nations Convention on the Law of the Sea (UNCLOS).

The mere existence of law does not imply that conflict resolution would be a routine process. Implementation of law comes with its own set of challenges. As far as nonstate actors are concerned, there is no law at all. Unlike domestic laws that have a mechanism for enforcing them, such is not the case for international law. In situations of noncompliance, the major powers shoulder an important responsibility toward ensuring adherence, through the UN Security Council, and an equal responsibility for self-compliance, when it applies to them.

The laws and frameworks that govern what nations can and cannot do at sea are exceedingly important. The efforts [made] since the 1920s toward institutionalizing an agreed mechanism have been met with little success.

We owe a debt of gratitude to His Excellency Arvid Pardo, Malta's ambassador to the United Nations, who, in his [speech to the UN General Assembly in 1967](#), pressed the urgency for an effective international regime over the seabed and ocean floor, beyond a clearly defined national jurisdiction. What started as an exercise to regulate the seabed turned into a global diplomatic effort to regulate and write the rules for all uses of the ocean areas and their resources. The successful conclusion of UNCLOS has been described by the UN Secretary General as "one of the most significant and visionary multilateral agreements of the twentieth century."

What stands out is that the convention was accepted as a package deal, to be accepted as a whole of all its parts, without any reservation. A signatory to UNCLOS cannot cherry-pick provisions for compliance.

MARITIME SECURITY CHALLENGES

Let us now look at the influence of international law on maritime security.

There is no international consensus on the definition of maritime security. The maritime security challenges in the following list are drawn from the relevant UN document, as well as documents from a cross section of navies represented here:

- Piracy
- Drug trafficking
- Migrant smuggling/human trafficking
- Arms trafficking
- Illegal, unreported, and unregulated fishing
- Maritime terrorism
- Maritime boundary disputes

The hierarchy of challenges would differ from one nation to another.

Piracy. In the challenges listed, I put piracy at the top, as it is an excellent example of a challenge successfully tackled, only due to outstanding multinational cooperation, backed by provisions of international law. Supplementing Articles 100 to 107 of UNCLOS, a series of UN Security Council Resolutions authorized the use of force in Somali territorial waters to combat piracy, in cooperation with the Transitional Federal Government of Somalia.¹

This paved the way for the participation of nations, where the leadership mandates legal sanction as a prerequisite for employing force. Concurrently, soft-law options ushered in the deployment of [privately contracted armed security personnel](#) (PCASP) on board merchant ships, which also had a major impact in warding off piracy attempts. Gaps have since been observed in the deployment of PCASPs, requiring further regulation, for instance, in the relationship between the master of a ship and PCASP on the rules of engagement.

Another development has been the concept of floating armories as offshore supply services for PCASP. They aim to circumvent existing regulations of a state on the transit of firearms through the state's territorial sea. What if the concept of floating armories is employed by elements inimical to a coastal state, by masquerading as a PCASP support ship?

Such issues are being addressed at the International Maritime Organization, but there is no consensus yet.

Drug Trafficking. Drug trafficking is of singular concern due to the immense profits it generates, leading to its nexus with terrorism, human trafficking, and illicit small-arms trade.

The annual value of drug trade is estimated at US\$322 billion, and involves elaborate money-laundering services. Over 50 percent of terror organizations, designated as such by the United States, are involved in one or more aspects of the global drug trade. And the maritime route is the predominant conduit for the transit of drugs.

1. Articles 100 to 107 are pp. 60–62, [United Nations Convention on the Law of the Sea](#).



The annual global drug trade is estimated at US\$322 billion and involves elaborate money-laundering services.

International legislation has greatly helped in coordinating multilateral efforts to combat this menace. Three major international drug-control treaties include

- The 1988 [United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances](#), which focuses on establishing measures to combat illicit drug trafficking and related money laundering, as well as strengthening the framework of international cooperation in criminal matters, such as extradition and mutual legal assistance.
- UNCLOS Article 108, which addresses drug trafficking, and a number of IMO guidelines encourage international cooperation in tackling this menace.²
- Regional soft-law initiatives have resulted from successful state cooperation on anti-drug trafficking measures. These include the Caribbean Regional Maritime Agreement, the fifty-five-nation [Paris Pact Initiative](#), and the Organization of American States Model Procedures for Counter-drug Operations.

Migrant Smuggling / Human Trafficking. Smuggling of migrants fleeing from persecution in their countries, or economic migrants, has become a US\$30 billion industry. While this figure may seem a distant second to drug smuggling, the cost of human suffering and exploitation and the numerous poignant stories of migrants who perish at sea just cannot be quantified. The tragic case of Alan Kurdi, the three-year-old Syrian boy whose body washed ashore on a beach in Turkey, reverberated across the world.

The [United Nations Convention against Transnational Organized Crime](#), and also the 1967 [Protocol Related to Status of Refugees](#) provide the legal foundation for nations to work together. The [Migrant Smuggling Protocol](#), in conjunction with UNCLOS Articles 92 to 94 concerning flag states' responsibility for ships that fly their flags, requires states to cooperate to the fullest extent possible to prevent and suppress the smuggling of migrants by sea. The International Maritime Organization has also issued various guidelines on this subject.³

Yesterday, Mr. Trelawny touched on some innovative methods to detect suspect ships involved in migrant smuggling. These enabling provisions need to be utilized for

²Article 108 is on p. 62, United Nations Convention on the Law of the Sea.

³Articles 92 to 94 are on pp. 58–59, United Nations Convention on the Law of the Sea.

formulating concrete, multinational joint action plans, as can be seen in Africa, for example.

Complemented by the UN Office of Drug and Crime initiative, “[Regional Strategy for Combating Trafficking in Persons and Smuggling of Migrants in West and Central Africa](#),” the European Union is working closely with the African Union and with certain other countries in Africa at the bilateral level.

The [Rabat Process](#) and [Khartoum Process](#) are some of the other endeavors to counter this menace.

Arms Trafficking. In the twenty-first century, arms trafficking is a global operation, with illegal annual sales amounting to US\$3 billion. It is a major source of regional instability. Illicit arms consignments are largely funneled via the sea route on flags-of-convenience vessels. No single nation can address this problem.

In 2001 the United Nations initiated the non-legally-binding international agreement “[Program for Action](#),” which outlined a range of measures to counter illicit arms trade; unfortunately this was met with limited success. Renewed efforts were

“The illicit transport of weapons of mass destruction materiel by sea combines terrorist and proliferation threats with maritime shipping realities to form a serious security challenge. The problem is real.”

—Admiral Nirmal K. Verma,
Indian Navy (Ret.)

made in 2012 to shape it into an international legal instrument in the form of the [UN Arms Trade Treaty](#). Even though 130 countries have signed the treaty to date, its effectiveness is handicapped, as certain key arms exporters are not on board. What must be noted is that weapons are not branded as “illicit” at the time of manufacture but could end that way. The treaty helps in tracking of weapon sales.

The need of the hour is that states must continue to further develop mechanisms for the exchange of information, at the regional and subregional levels, to assist agencies engaged in the control, tracking, and seizure of illicit arms, and eradicate this menace.

The illicit transport of weapons of mass destruction materiel by sea combines terrorist and proliferation threats with maritime shipping realities to form a serious security



Arms trafficking: a major source of regional instability

challenge. The problem is real. Considering that global cargo theft exceeds US\$50 billion a year, illicit articles would likewise be inserted into the transportation system.

The challenge is to obtain information and intelligence at one end, and carry out maritime interdiction at the other. The United States launched the [Proliferation Security Initiative](#) in 2003 as a multilateral effort to tackle the challenge of interdiction. Over a hundred countries have signed the Proliferation Security Initiative since it was launched.

However, there are differing views on the legality of mounting an operation outside the territorial waters of a participating coastal state. The alternate view is that such action was permitted, inferred from existing norms that include the right to self-defense under the [UN Charter](#) and UN Security Council Resolutions 1540, 1874, 1925, and Article 4 of the [2005 Suppression of Unlawful Acts Convention](#).⁴

Ideally, a UN Security Council Resolution that factors in various actions under the Proliferation Security Initiative would help reconcile the different legal interpretations and bring all states onboard. This challenge is serious when we factor in the pace of North Korea's nuclear program and the possibility of clandestine exports by it to tide over crippling economic sanctions.

IUU Fishing. IUU fishing came up in much discussion yesterday as well and figures high on the priority of challenges for many developing nations. It is not difficult to understand the reason for the same. Hundreds of millions depend on fish as a primary source of protein and livelihood, with fisheries creating 260 million jobs worldwide.

Illegal, unreported, and unregulated fishing is estimated to represent 20 percent of all catch worldwide, with an annual value of over US\$23 billion. More worrisome is the fact that IUU fishing cannot be factored into the management of fish stocks. Consequently, 53 percent of the world's fisheries are fully exploited, and 32 percent overexploited.

Interestingly, apart from government-led initiatives to mitigate this problem, there is participation from the industry and nongovernmental organizations. For example, [FISH-i Africa](#) consists of technical collaboration and real-time information sharing, and has already won some large prosecutions against fish criminals since its launch in the waters of East Africa in 2013.

Other initiatives employing modern technology include the [Global Fishing Watch](#) and [Project Eyes on the Seas](#) that both deploy satellite technology for maritime surveillance, with support from private-sector partner Google and [Satellite Application Catapult](#), respectively, and conservation nonprofits [Oceana](#) and [Pew Charitable Trust](#).

What is required is far more synergy in interfacing these efforts with those of the maritime law enforcement agencies and better state control. Additionally, in nations where the UN Food and Agriculture Organization's nonbinding [Code of Conduct for Responsible Fisheries](#) of 1995 has been incorporated into national law, illegal, unreported, and unregulated fishing has, indeed, decreased.

Maritime Terrorism. Incidents of maritime terrorism account for less than 1 percent of all terrorist attacks, but that should not detract from the potential to inflict massive casualties and cause economic havoc. Terror groups known to have maritime capability are shown in the following graphic.

4. The convention's full name is Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation.

<ul style="list-style-type: none"> • Terrorist Groups with Maritime Capabilities - Al-Qaeda - Abu Nidal Organisation - Abu Sayyaf Group - Basque Fatherland and Liberty - Hamas - Hizbollah - Jemmah Islamiya - Lashkar e-Tayyiba - Liberation Tigers of Tamil Eelam (presently defunct) - Palestine Liberation Front – Abu Abbas Faction 	 <p style="text-align: right; font-weight: bold;">USS Cole</p>  <p style="text-align: right; font-weight: bold;">MV Limburg</p>
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Terrorist groups with known maritime capabilities

The al-Qa'eda-affiliated group responsible for the attacks on USS *Cole* and MV *Limburg* drew up a four-pronged strategy that included suicide attacks on vessels, hijacking of vessels to be used against ports or transportation infrastructure, attacking supertankers using explosive-filled aircraft, and underwater saboteurs.

The sea route has also been used to transport weapons and terrorists for transnational attacks ashore. While [Articles 39 and 51 of the UN Charter](#) could be implied under certain circumstances, what is essentially required is a treaty that deals specifically with terrorism.

India proposed a [Comprehensive Convention on International Terrorism](#) in 1996. Unfortunately, it got deadlocked because of differences over the very definition of "terrorism." This has since been modified and is currently before the UN General Assembly. Meanwhile, in 2006, the UN General Assembly unanimously adopted a resolution on a [Global Counterterrorism Strategy](#) that has been described as a "major development against terrorism." Since then, there has been greater regional and international cooperation, capacity building, and intelligence sharing. Furthermore, the 2005 Suppression of Unlawful Acts Convention holds great promise as a national guide for states to enact laws and develop the capacity to prevent terrorist or weapons of mass destruction attacks from the sea.

Maritime Boundary Disputes. Perhaps the maritime security challenge of greatest complexity and concern involves maritime boundary disputes, particularly where we have different perceptions of sovereignty of land features. Territorial disputes overlaid on notions of historical injustice further complicate a difficult situation by whipping up extreme nationalistic passions.

The challenge requires enlightened political leadership that is able to work out a modus vivendi with the other state involved in the dispute and convince its own populace on the merits of such action.

INTERNATIONAL LAW AND MARITIME BOUNDARY DISPUTES

Let us take a brief review of some cases where nations have been able to peacefully handle differing perceptions of the maritime boundaries, including taking recourse with the dispute resolution mechanisms of UNCLOS.

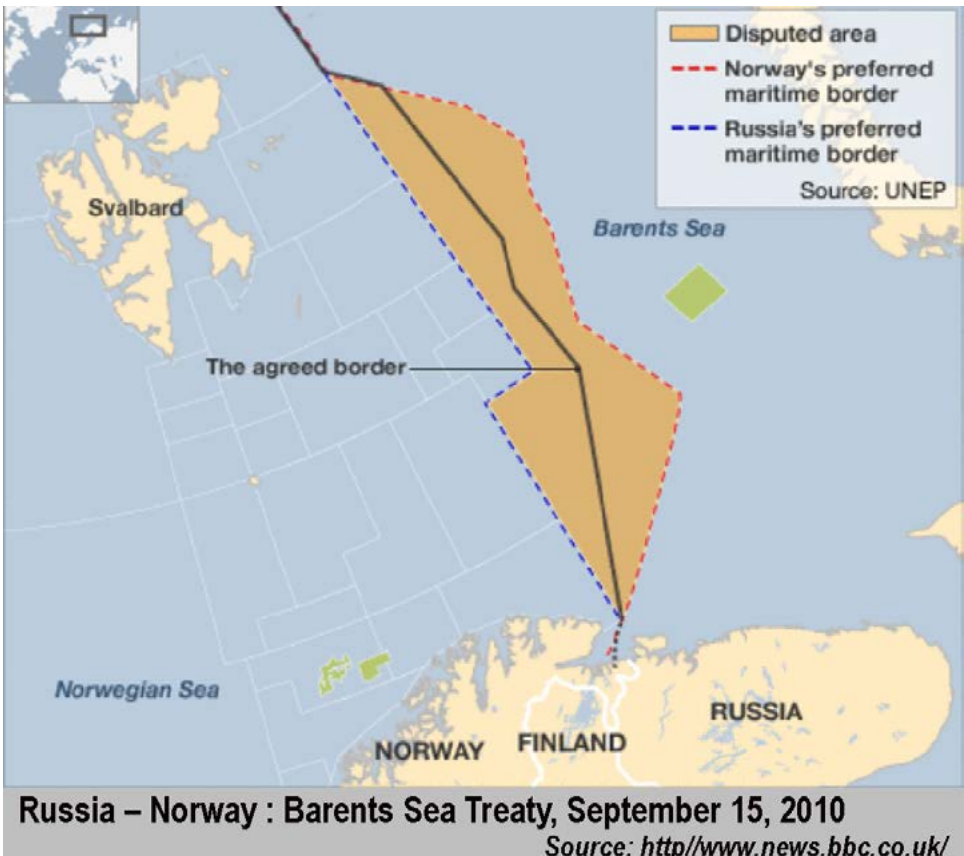
Arctic. Let us start with a region that is closest to where we are present today—the Arctic. It is a region that is estimated to hold 25 percent of the world’s current oil and natural gas reserves, and where the ownership of a large part remains unsettled.

The first of the claims dates back to early twentieth century. Meanwhile, there have been isolated incidents where nations indulged in peaceful demonstration, in their own inimitable way, in support of the claims.

Adopting a multilateral approach for Arctic issues, the foreign ministers of Canada, Denmark, Norway, Russia, and the United States, which border the Arctic, met in Ilulissat, Greenland, on 28 May 2008. **They committed to the existing legal framework** and to the orderly settlement of any overlapping claims without the need to create an extensive international regime to govern the Arctic Ocean.

The **Arctic Council**, established in 1996, has also played an important role in the dialogue process. On 15 September 2010, Russia and Norway successfully negotiated the maritime boundary in the Barents Sea, thus ending a forty-year bitter dispute. The **Barents Sea Treaty** showcases the benefit of abiding by international law and diplomatic courtesy. According to some experts, the overall income generated from the implementation of this treaty might reach \$200 billion.

Days after this agreement, the then-Foreign Minister of Canada was urging the United States to reach a compromise in a similar dispute in the **Beaufort Sea**. The key legal issues that remain are the status of the **Northwest Passage**, the Beaufort



In 2010, Russia and Norway successfully negotiated the maritime boundary in the Barents Sea.

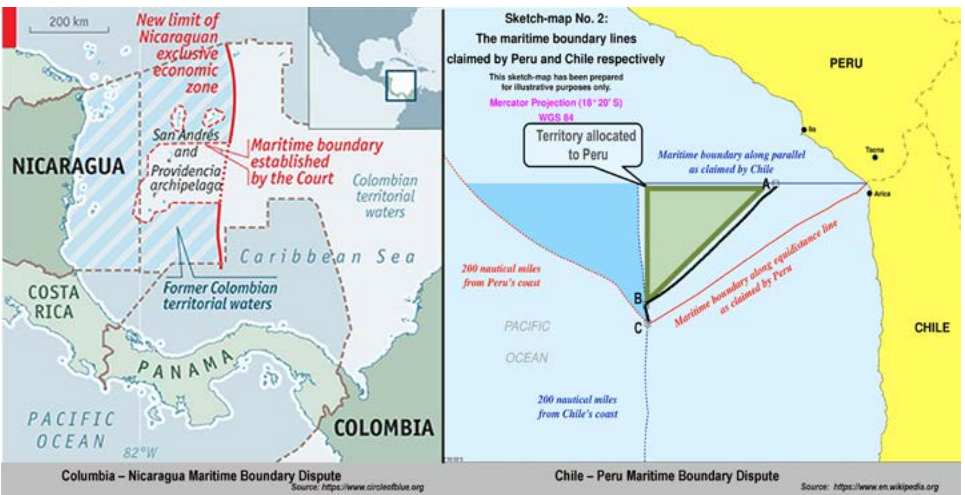
Sea, Hans Island, and the Lomonosov Ridge. What is important is that there is dialogue, and the region has remained conflict-free.

Latin American Maritime Disputes. Latin America has also managed its maritime disputes well, though there have been situations of near-conflict.

The good offices of the Pope were sought, once again, in 1978 by Chile and Argentina to resolve the **Beagle Channel dispute** in the Strait of Magellan. War was averted at the last moment. While supporting an earlier ruling under UNCLOS that the disputed islands belonged to Chile, Argentina was allowed full navigation



Chile and Argentina almost went to war over which country had rights to the Beagle Channel. Ultimately, UNCLOS ruled that the islands belonged to Chile, but Argentina was allowed full navigation rights to the area.



Left: The International Court of Justice established boundaries for Colombia and Nicaragua. Right: The same court granted Peru part of the Pacific Ocean and awarded Chile some fishing grounds.

rights and permission to build navigational safety aids on the islands and a Chilean-Argentinian economic zone was created.

In another instance, the International Court of Justice ended a long-running territorial and maritime dispute between Colombia and Nicaragua. It unanimously ruled that Colombia has sovereignty over a group of small islands in the western Caribbean, while Nicaragua was accorded control over a large amount of surrounding sea and seabed.

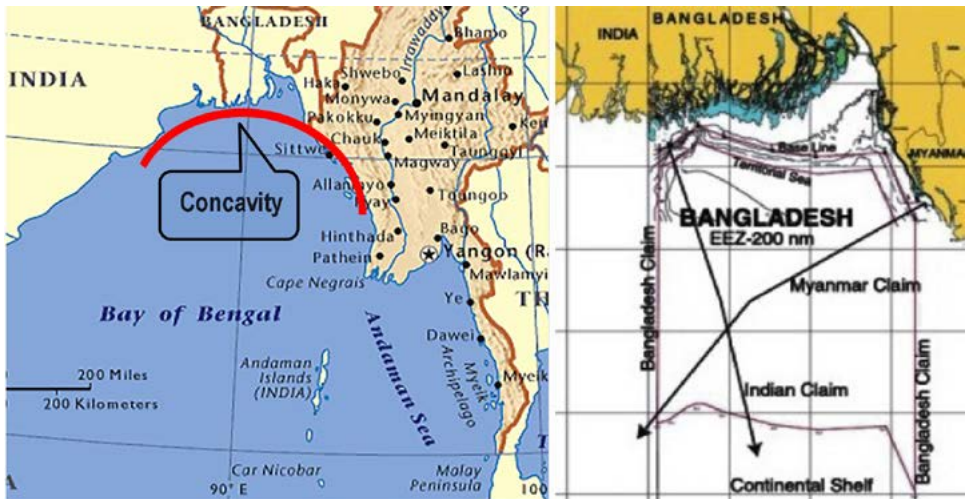
Yet again, the International Court of Justice established a new maritime boundary between Peru and Chile in January 2014. In the process, the court granted Peru some parts of the Pacific Ocean formerly controlled by Chile, but left Chile the prosperous coastal fishing grounds.

Bay of Bengal Disputes. Another region that has witnessed peaceful resolution of maritime boundary disputes under the provisions of UNCLOS is the Bay of Bengal. This involved Bangladesh and Myanmar in one case, and Bangladesh and India in another.

Both Myanmar and India favored delimitation of the maritime boundary based on the equidistance principle, which has been wrong as far as UNCLOS is concerned. On the other hand, Bangladesh maintained it was disadvantaged, due to the concavity of its coast, which is similar to the case of Germany in the North Sea. This concavity restricted Bangladesh's exclusive economic zone to less than 200 miles, and completely denied it an extended continental shelf. Bangladesh, therefore, sought delineation on the basis of equity, which led to an impasse.

The following right graphic encapsulates the different perceptions of the claimants. The maritime boundary in India's perception was based on the equidistant principle, and likewise, from Myanmar's. What was happening with Bangladesh is that it was being boxed in. Bangladesh propounded that the area encapsulated by the two vertical lines coming down, was based on the straight-lines principle.

The Myanmar-Bangladesh maritime boundary dispute gained urgency in 2008 when there was a near clash due to Myanmar contracting oil companies for exploration. As bilateral efforts at resolving the maritime boundary dispute were not yielding results, the matter was eventually brought before the International Tribunal



Left: Bangladesh's concavity issue; Right: Differing perceptions of maritime boundaries

for the Law of the Sea. The tribunal adopted a three-step method that had been adopted by the International Court of Justice in some earlier cases:

- It first drew an equidistant line, the principle espoused by Myanmar and India,
- The tribunal then checked its “equitableness,” in light of the relevant circumstances, essentially the concavity of the Bangladesh coast.
- Finally, [following] proportionality, it checked that the areas of two states were in proportion to the lengths of the coastlines. The boundary was adjusted accordingly.

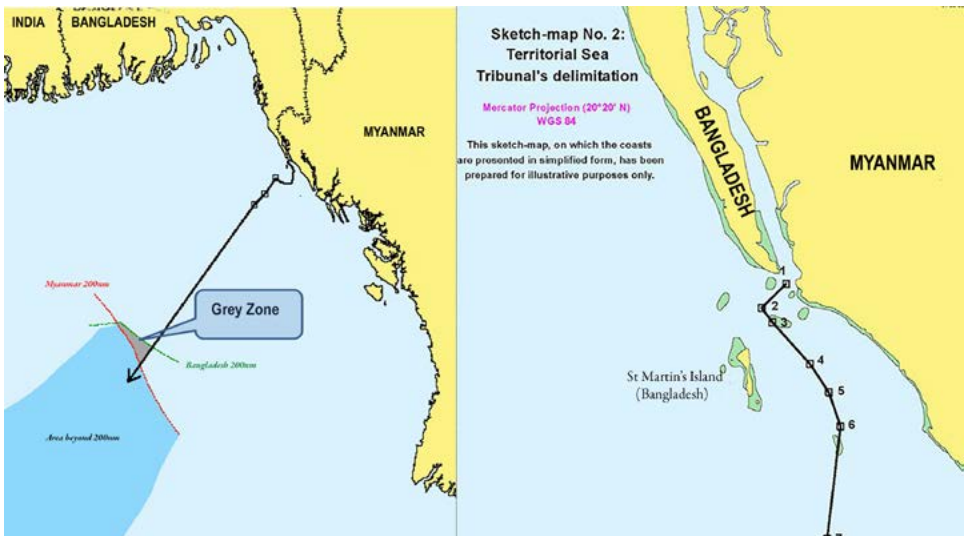
The most innovative part of the decision was the **delimitation of the continental shelf beyond 200 nautical miles**. The process created a gray zone that was within the economic exclusive zone of Myanmar, in which Bangladesh has rights to the seabed for resource exploitation, Myanmar has title to the superjacent waters (that is, the waters above) and the tribunal left it to the parties to determine the practical arrangements for the exercise of their respective rights in the gray zone.

Another challenge thrown up was the impact of St. Martin’s Island, which belonged to Bangladesh, and which was located directly in front of Myanmar. The tribunal awarded St. Martin’s Island its own twelve-nautical-mile territorial sea, but did not allow for its own relative exclusive economic zone or continental shelf.

Do I see some nodding in the audience, relating this with somewhere else as well?

Before I touch on the Bangladesh-India dispute, I must first share a few thoughts on India’s Neighborhood Policy, which will explain the rationale behind India’s actions in this case. The priority for India is economic development, and this predicates a stable, secure, and peaceful neighborhood. This brief passage, from India’s Prime Minister Modi’s [address to the Sri Lankan parliament](#) on 13 March 2015, sums up the essence of India’s Neighborhood Policy:

I am convinced that the future of any country is influenced by the state of its neighborhood. The future that I dream for India is also the future that I wish for our neighbors. . . . My vision of an ideal neighborhood is one in which



The International Tribunal created a gray zone and awarded Bangladesh’s St. Martin’s Island its own twelve-nautical-mile territorial sea.

India's Effort to Demarcate Maritime Boundaries with Neighbors

Country	Agreement	Entry into Force
Indonesia	- Continental Shelf - Extension of Continental Shelf	- Dec 17, 1974 - Aug 15, 1997
Maldives	Maritime Boundary	- Jun 8 1978
Myanmar	Maritime Boundary	- Sep 14, 1987
Sri Lanka	- Boundary in Historic Waters - Maritime Boundary - Extension in Maritime Boundary	- Jun 8, 1974 - May 10, 1976 - Feb 5, 1977
Thailand	- Seabed Boundary - Maritime Boundary	- Dec 15, 1978 - Jan 17, 1996

Trilateral Agreements on Maritime Boundaries

Sri Lanka & Maldives		- Jan 31, 1976
Indonesia & Thailand		- Mar 2, 1979
Myanmar & Thailand		- May 24, 1995

India's push for the delineation of its maritime borders has been very successful.

trade, investments, technology, ideas and people flow easily across borders; when partnerships in the region are formed with the ease of routine.

[As a result of] considerable political and diplomatic efforts since the 1970s, India's maritime boundaries have been delineated in all but one case.

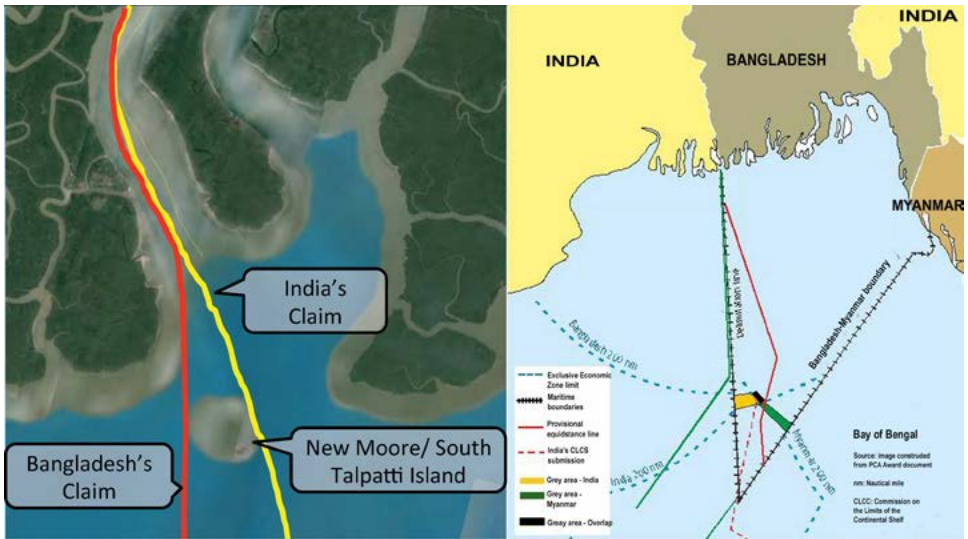
In the instant case, India accepted [arbitration](#), as a solution could not be arrived at bilaterally. The arbitration panel adopted a three-step process similar to that in the Myanmar case. It also created a gray zone with similar stipulations.

In this case, another development was the emergence of an island off the river boundary between Bangladesh and India, following a cyclone in the 1970s. It impacted the maritime boundary, as both nations claimed sovereignty over the island.

By the time the arbitration process commenced, the island was reduced to a low-tide elevation through erosion and did not play any role in the delineation process. Neither Bangladesh nor India had anything to do with changing this fact on ground.

The following right graphic shows the maritime boundaries (indicated by line with tick marks) finally delineated by the International Tribunal for the Law of the Sea and the Permanent Court of Arbitration. This is the maritime boundary between India and Bangladesh, and likewise between Myanmar and Bangladesh. Bangladesh now has the extended area, which gives it access to the seabed, and there is a gray zone [black area in graphic].

To complicate matters further, there's overlap of the gray zones between Myanmar and India, but with our Neighborhood Policy, I am sure we will find ways to work something out. This award opens up the region for exploitation of undersea



Left: Competing maritime claims; Right: Line with tick marks depicts maritime boundary determined by arbitration panel

resources, and fishermen will no longer face any harassment. Though the award went largely in favor of Bangladesh, India viewed it as another positive step in consolidating its Neighborhood Policy.

These cases provide an excellent precedent for the peaceful settlement of maritime boundary disputes and show how states can depoliticize sovereignty issues and cooperate to achieve political and commercial certainty.

Southeast Asia Disputes. Admiral Scott H. Swift, *Commander, U.S. Pacific Fleet*, made an interesting observation on this region at the last Western Pacific Naval Symposium, held in Padang, Indonesia, in April this year:

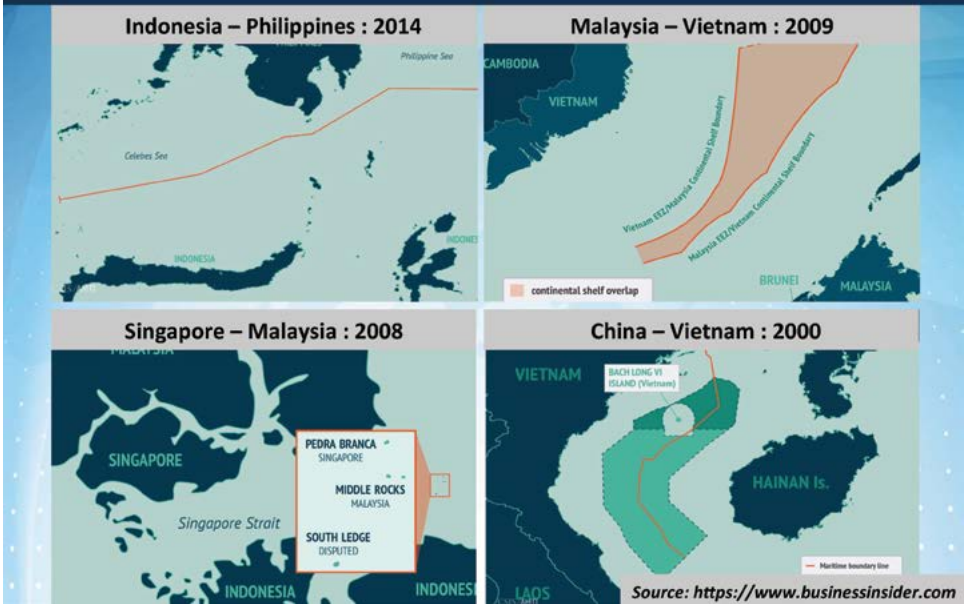
If I stood in the Straits of Malacca, and look east into the Western Pacific, I saw protracted maritime disputes and a lack of transparency in contested waters. Looking west, into the Indian Ocean, I saw neighboring nations, large and powerful such as India, as well as smaller and more vulnerable, such as Bangladesh and Myanmar/Burma, working together in international fora to resolve similar types of disputes peacefully and promote cooperation at sea.

By admitting longstanding disputes to international institutions, and agreeing to honor the outcomes, these nations demonstrated the responsible application of a seventy-year old model, forged in war, tested by time, modified by consensus decisions, and adjudicated in accordance with international law.

Southeast Asia and East Asia are indeed mired in maritime boundary disputes. At the same time, it is encouraging to see instances where nations of the region have come together to find mutually acceptable solutions.

After twenty years of negotiations, Philippines and Indonesia successfully delineated the maritime boundaries in the overlapping of the Mindanao and Celebes Seas in southern Philippines in 2014. [See following top left graphic.]

South China Sea – Cases Resolved



Although Southeast Asia and East Asia are engaged in several maritime boundary disputes, mutual agreements have been reached among several nations in that region.

In 2009, Malaysia and Vietnam made a rare joint submission to the Commission on the Limits of the Continental Shelf, in which they extended claims to the seabed in the southern part of the South China Sea but agreed to pursue joint development in the disputed area. The Philippines objected that the submission might infringe on its own extended continental shelf. This shows the difficulty of bilateral discussions and agreements in a multilateral dispute. In another case, in 2008, the International Court of Justice resolved a decades-long dispute between Malaysia and Singapore on certain features, awarding Pedra Blanca to Singapore, the Middle Rocks to Malaysia, and the South Ledge to the “State in the territorial waters of which it is located,” as it required further delimitation of territorial waters.

In the year 2000, there was an agreement between China and Vietnam that delineated the maritime border in the Gulf of Tonkin. An accompanying agreement to share fisheries on both sides of the boundary was the key factor that helped this resolution to go through. Difficult issues like oil and gas rights were shelved to facilitate an accord. [See previous lower-right graphic].

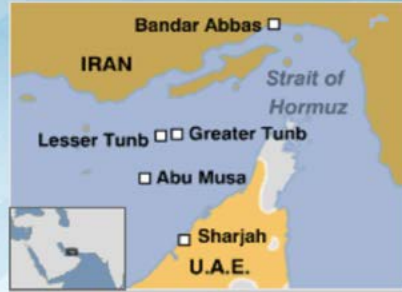
These instances give hope that the intricate issue of drawing mutually acceptable maritime boundaries, and mechanisms for resource sharing in the South China Sea can be satisfactorily addressed if the claimants take a similar approach in the spirit of mutual accommodation.

Joint Development in Disputed Areas. Joint development offers an interim solution to the problem of maritime boundary disputes. Rather than trying to delineate contested maritime borders—a process that may stretch over decades without

Joint Development in Disputed Areas – Other Cases



Saudi Arabia – Bahrain



Iran – Sharjah

and others ...

Senegal – Guinea Bissau

Sao Tome and Principe – Nigeria

Australia and Timor-Leste

Source: <https://www.news.bbc.co.uk>

Joint development zone agreements, wherein countries simply agree to work together, are a good solution in situations where maritime boundary disputes are difficult to resolve.

resolution—a joint development zone agreement, which is simply an agreement to work together in a disputed area, is an attractive option.

This concept is working well elsewhere, too. In the case pertaining to Saudi Arabia and Bahrain, the border was positioned to avoid crossing the Fasht Abu-Sa`fah oilfield, which, as a result, ended up wholly within the jurisdiction of Saudi Arabia. In return, Saudi Arabia was obliged to grant Bahrain 50 percent of the net revenue earned from the oilfield.

In another case, Iran and Sharjah entered into a memorandum of understanding in relation to Abu Musa, an island in the Persian Gulf. The memorandum had a provision for half the oil revenues earned by the company prospecting for oil in the territorial sea to be paid to Iran and Sharjah.

There have also been cases where joint development agreements did not require the benefits to be split evenly. In the case of Senegal and Guinea-Bissau, there is an 85:15 split in favor of Senegal for petroleum resources, but a 50:50 split for fishing rights.

In the case of São Tomé and Príncipe and Nigeria, there is a 60:40 split in favor of Nigeria for resources extracted.

Australia agreed to a 90:10 split for petroleum resources, in favor of Timor-Leste, in an agreement in 2002. There are many more similar cases.

INTERNATIONAL LAW—INSTRUMENT FOR RULE-BASED ORDER

You would have observed that tremendous benefits accrue to nations, big and small, when nations comply with provisions of international law, which facilitates a

transparent, rule-based order. The law also authorizes various measures that can be taken to counter challenges to maritime security. The degree of success achieved depends entirely on how nations frame supporting domestic legislation, nations' navies and maritime services work alongside other concerned agencies, and nations convert these provisions under law into implementable action plans.

Increasingly, the maritime strategies of navies across the world are emphasizing the importance of multilateral and coordinated responses to emerging challenges. This development is indeed encouraging.

There are many mechanisms through which the navies can meet and find ways to work together. In some cases, the platforms offered are in the form of navy-to-navy staff talks and other bilateral fora. In other cases, opportunity could be available in bilateral and multilateral politico-military fora. Yet other opportunities are symposia, such as the one in which we are currently participating.

Yesterday we were privileged to be briefed on various regional symposia and learn about the excellent work being done. The Code for Unplanned Encounters at Sea, or CUES, which was endorsed at the Fourteenth Western Pacific Naval Symposium, is an example of an important deliverable.

Legally not binding, the Code for Unplanned Encounters at Sea is an excellent example of soft law. Its immense utility came in for mention by many a panelist during the sessions yesterday. Other regions of the world are also taking a cue from CUES.

In the final analysis, international law is a great enabler that ushers in a transparent, rule-based order, which is a source of strength and security for all nations. Most importantly, it has time-tested, dispute-resolution mechanisms. Adherence to international law lays the foundation for a stable, predictable, and conflict-free world order.

Thank you.

DISCUSSION

Question:

Thank you very much for a tremendous presentation.

My question is about maritime disputes and the Law of the Sea applicability in incidents or operations below the threshold of traditional armed conflict, sometimes referred to as gray-zone operations.

Certain countries are using quasi-military organizations to achieve their national objectives in the maritime domain. While perhaps, technically, they are using unarmed civilian vessels, these vessels are being employed as state instruments, nevertheless.

In your opinion, what are the implications for the rules of engagement for employing navies to respond to this very unconventional threat in these maritime disputes?

Response:

In my opinion, we have to put in every effort to ensure that a conflict situation does not escalate. I find that when things are worked out, in similar situations, it has been through dialogue. In this process, I think the greater responsibility lies with the stronger power, because they are in the position to defuse a situation.

And global opinion has to prevail and influence has to be brought about on a power, which is leading to a situation which may cause conflict or escalate conflict.

Question:

The United States is approaching its one-hundredth anniversary of the Jones Act. It's a U.S. legislative mandate on how merchant shipping is used inside the United States and its territories.

Can you address the pros and cons, or the costs and benefits, of how that law has contributed to American sea power, and what we can learn from it for international sea power?

The law definitely impacts sea power, merchant shipping, commerce and trade. It impacts the standards of how those are done.

What can we learn from that, where the standards would be more common across the international trade, which would help sea power, overall?

Response:

I'm not very familiar with this law. So I will not be able to make a comment which would really answer your question.

There's only one point I'd like to say. During my presentation, there were a number of areas where I talked about what is expected from the political leadership. When one says that, it's not that it's a different compartment working somewhere else.

I think as senior military leadership, like that represented here, you have a great role in molding political opinion in some of these cases. I'm sure that with the right sort of briefing, it should be possible to put forward a convincing argument which can mold the political opinion in a country.

Question:

Thank you so much for your comments.

Along the line that you were just talking about, cyberspace has changed the way we live our lives and the way we will deal with future conflicts, including those that you spoke of in the maritime security challenges, likely in ways that we don't even know yet.

Despite a lot of discussions around creating international law and standards of behavior in cyberspace and cyberspace operations, we have not made much progress, globally, in adopting any type of international law here.

I think Westphalia and the physical boundaries that you talk about in resolving disputes may not help us in the maritime security challenges that all of our nations and navies could face in the future, because of the dependencies on cyberspace, international shipping, and traffic, along those lines.

With your experience in watching international law and conflict resolution evolve in the maritime domain, do you see any hope—even in the next decade—for international law that would help us in the maritime domain deal with the threats that we are facing?

Response:

As far as cyber laws are concerned, today that is the most urgent topic on everyone's mind, and major nations are grappling with the issue. One thing that has to be

factored in is [that] cyber gives an opportunity for escalated warfare, if you ask me. You do not have to be a major nation [to use cyber], in the traditional sense that we have known in measuring military power.

Even a big nation, high up on the ladder with respect to the order of battle certainly as far as cyberspace is concerned, is equally vulnerable as the weakest nation. So it is an urgency which has to be understood by all nations.

In my presentation, I talked about soft law and options, because when you talk about treaties, there is this reluctance. That's why you find negotiation of treaties takes an endless amount of time. We could perhaps start with a soft-law option. Look at the low-hanging fruit.

The major nations should be as concerned about it. Nobody is the strongest, as far as cyberwar is concerned. You know, a few smart mines and some small nation can do havoc.

Question:

Thank you very much for your very comprehensive presentation.

My question goes in this direction: we're living in a century where the power of nonstate actors is growing. We witnessed this for many decades. But on the other hand, they have little say in the international legal system. In this case, if you have power, and there is no legal way to exercise this, it's obvious that this is the shortcut toward illegal actions.

How can we incorporate nonstate actors in the international legal system so that we can favor, in a good way, their power and influence?

Response:

Nonstate actors are outside the system. It's a great challenge. Where nonstate actors are involved, there are nations that are trying to tackle this group, and I would say with a reasonable amount of success, in different parts of the world.

What should really be happening is that you cut off the pipeline, in terms of the human resource that goes into this. That, I think, is the essential requirement. Otherwise, you tackle a threat, and there are replacements that come in. So the channel for replacements is, in fact, a social issue. That is where much work will have to be done by the global community.

Question:

I commend you on your presentation.

The last question interested me in connecting it with your admonition of us as practitioners in the maritime domain, helping inform our policy makers as to the challenges that we face, and how they may be able to support that.

I spend a lot of my time "unpacking" freedom of navigation, because the sense is that the challenges we face—that you've outlined here so eloquently—really reside almost entirely at sea. Each one of them, as you've described, has a significant impact ashore, as well in all of our traditional shore-based institutions—economic, diplomatic. There are many of them.

Reflecting on your experience as a chief of navy, ambassador, and now scholar at the War College, how might we better inform the constituency that's ashore and that has equities at sea, but yet doesn't understand the significance of these challenges that you describe?

Response A:

We just have to put in much more effort to ensure that people ashore understand the maritime challenges that the maritime services face.

In the United Kingdom, for instance, the Navy League does a great job in educating the public. Of course, they have a maritime tradition. It's just a question of an outreach program to make it as effective as possible. I see it happening in the United States, also. I suppose the effort could be multiplied many ways. When I talk about such effort, it operates at different levels.

Firstly, we have to educate those involved in the decision-making process, and actually get them to buy into your way of thinking. Equally importantly is reaching out to the civilian populace, so they'll become supportive of the maritime services.

Response B:

It's a great question. It has relevance to what I would ask you to consider for your feedback and comments regarding the conduct of the International Seapower Symposium, and the role of the media and its interplay at the symposium.

We had a good discussion at lunch yesterday about what the media could contribute to the International Seapower Symposium. We have a fairly sparse media presence here. Most of our discussions are conducted without media present, but that's on purpose, so that we can have these discussions in private, per se.

But on the other hand, there's a role for external messaging. The media can help us address this exact point. A lot of naval and coast guard leaders met here. We discussed this thing, and this has implications for all of you, ashore, in your livelihoods.

If we want to move the needle, and correct what might be phrased as sea-blindness in our societies, there might be a role for the media at the International Seapower Symposium, and other fora like this in the future.

I'd ask you to think about that, as you fill out your critique forms and you shape the next manifestation of this symposium. Is there a greater role for the media in some of the venues, and to be present as we have some of these discussions? We have to do that consciously, but it can be used positively to help inform our people of the importance of the sea, as it affects life on land.

Question:

Thank you very much for your presentation.

I have a question which may [result in] another case study. In 2014, the neighboring nation of Ukraine, Russia, annexed the Crimea Peninsula. This fact is not recognized internationally. However, currently they claim twelve nautical miles of territorial sea and their portion of the exclusive economic zone. For this purpose, they used their military units, naval units, regular ships, and, of course, border guard ships.

What should be done in this case? What do you think, from your experience?

Response:

At the start of my talk, I said international law compliance is a problem. When I talked about major powers having a role in ensuring compliance through the UN Security Council, I emphasized that there's a great responsibility on the major powers for self-compliance with respect to the rule of the law.

This is the weakness in our world. Except for the international community coming together as one block, and perhaps ostracizing a country, which is not doing things as expected by the rule of law, I can't really think of anything else.

These are challenging situations for smaller countries. We just hope that major powers conduct themselves as expected by the global community.

Remarks

The Honorable Robert O. Work

Deputy Secretary of Defense

Admiral John M. Richardson, United States:

It's my pleasure to have the honor of introducing someone who really needs no introduction. Our next speaker is our Deputy Secretary of Defense. His presence here, again, gives an indication of the import of this group—the very highest levels of our Defense Department are here to talk to you.

Our current Deputy Secretary is no stranger at all. In fact, he's an expert in the maritime. He's currently serving as our Deputy Secretary of Defense, but he's also served as our Under Secretary of the Navy, and before that served for twenty-seven years as an officer in the United States Marine Corps. He knows our business. He is a strategic thinker. He's driving the direction, in a forceful way, for our department.

Join me in a warm welcome for our Deputy Secretary of Defense, the Honorable Robert Work.

Deputy Secretary of Defense Robert O. Work, United States:

It's really great to be here in Newport with all of you incredible men and women, who lead the world's navies and coast guards.



The Honorable Robert O. Work, Deputy Secretary of Defense, addresses ISS XXII participants.

The Chief of Naval Operations tells me that this meeting marks the largest gathering of naval leaders in the world, with representatives from about 108 countries and about 180 leaders. That is no small thing. It's indicative of our collective desire to discuss the benefits of, and the challenges to, international sea power.

I thank Chief of Naval Operations Richardson for inviting me to speak. This group's efforts to advance our shared interest in collective security are absolutely central if we are to address the most important challenges we face together, in this increasingly complex and ever-more connected world.

PRINCIPLED INTERNATIONAL ORDER

Coast guards and navies are key enablers of global security, global stability, and most importantly, global prosperity.

International maritime cooperation on issues—such as piracy, illicit trafficking, terrorism, national disasters, refugee problems, proliferation and smuggling of weapons of mass destruction, and a range of other potential threats—enhances security for all of our nations.

We've all come to realize that no nation, regardless of how large it is, has the resources or capacities to meet all of these challenges alone.

The need for cooperation, collaboration among states, among their navies, has never been more urgent. Success will require collective and maritime partnerships.

We've seen the achievements that can be realized through these partnerships. Two shining examples are the international counterpiracy efforts in the Strait of Malacca and the Gulf of Aden—[both] models we should aspire to in many different types of crises or problems.

We've seen collective responses for humanitarian assistance and disaster relief, be it in the response to Haiti's earthquake, or Japan's tsunami and earthquake, or the refugee crisis in the Mediterranean. All of these responses were much more effective when the navies and coast guards of the world operated together.

We can make them more so. One of the key themes of this symposium is maritime operations in accordance with the norms of international laws. Let me briefly address this subject, as it is of enormous importance to the United States and, I would imagine, to many of you as well.

The United States throughout its history has stood up for freedom of the seas around the world. It is, literally, why we first built our Navy. It's why our sailors and Marines have helped uphold free and open maritime access to the world's waterways since the birth of our Republic. It's one reason why we continue to fly, sail, and operate wherever international law allows, so that all other nations are able to do the same.

The United States Navy is a war-fighting instrument to be sure, without question. But it also exists to control the seas for the prosperity of our nation and all like-minded peaceful nations, and to deter those who would subvert the global commons, limit global prosperity, and challenge the peaceful use of the seas.

Since the end of World War II, the United States Navy, along with many of the navies here, has provided the ingredients for a principled, international order based on the rule of law, which is designed to allow every nation to rise and prosper together. Increasingly, however, we see that principled international order being

tested. This is an era of great change in that regard. Some states are trying to play by their own rules, undercutting the very principles that have benefited our country and the rest of our world, in our view.

None can overturn this international order completely, but some are intent on undermining its cohesion, questioning its effectiveness, and assailing its legitimacy.

UPHOLDING CORE PRINCIPLES

So we're pushing back. For example, to shore up this principled order in the Asia Pacific region, Secretary Carter has led an initiative to create and secure a network of what he called "a principled and inclusive security network." Principled and inclusive.¹

This approach is focused on building an advanced security architecture, a law around maritime security that reflects the geography as well as the unique political, economic, sociocultural, and historic dynamics of the region. It does so in ways that hopefully will ensure that every nation has the opportunity to rise and prosper, which I think is the goal of all nations.

This growing and inclusive Asia Pacific security network weaves everyone's relationships together—bilateral, trilateral, multilateral—to help all of us do more, over greater distances, with greater economy of effort. It enables us to take coordinated action to respond to contingencies like humanitarian crises and disasters or to meet many of the common threats I referred to earlier, such as terrorism. It is also designed to ensure the security of, and equal access to, the global and regional commons, including all vital waterways therein.

We believe strongly that the establishment of this principled, inclusive security network would be a very positive change for the entire region and all nations within it.

But we have some work to do, if we are to have any hope of really constructing it. Indeed, in the South China Sea and elsewhere, there's a growing risk to the region's prosperous future—even though it's a future that many in the region have chosen, and have told us that they want to pursue, and are working toward together.

As [President Obama said in the UN General Assembly](#), just this week, "In the South China Sea, a peaceful resolution of disputes offered by law will mean far greater stability than the militarization of a few rocks and reefs."

The United States is determined to stand with our partners in the region in upholding core principles like freedom of navigation and overflight, free flow of commerce, and the peaceful resolution of disputes— and most importantly, the peaceful resolution of disputes through legal means, in accordance with international law.

As Secretary Carter said, we're committed to ensuring these core principles apply equally in the South China Sea as they do everywhere else. Only by ensuring that everyone plays by the same rules can we avoid the mistakes of the past, where countries challenged one another in contests of strength and will, with disastrous consequences for those who lived in the region, as well as around the world. That is why the United States is never going to waiver in our determination to uphold these core principles.

That said, let me make something perfectly clear, and I hope it is already clear to all of you. Our freedom of navigation operations in the South China Sea, the East

1. The "principled and inclusive security network" was addressed by U.S. Secretary of Defense Ashton Carter at the [ASEAN Defense Informal](#), 30 September 2016.

China Sea—they're not statements about sovereignty or preferences over any country's claims. They are not new to the last year. They are not confined to the South China Sea.

We routinely conduct these operations the world over. Each is a principled act, in our view, meant to uphold the rights of all nations—the United States, China, and every other state—to freedom of the seas. That's what they're all about. We see these efforts as being for the benefit of all nations.

THE THIRD OFFSET STRATEGY

Unfortunately, however, if history is any guide, collaborative, cooperative efforts are never going to completely eliminate the possibility that some countries may try to exert control of their nearby seas.

More often than not, the means by which they will do so are advanced, antiship cruise missiles and increasingly, antiship ballistic missiles (ASBMs). As our naval strategist—or probably better said, tactician—Wayne P. Hughes says, “The world's navies are in a new age where antiship missiles are the most influential weapon shaping tactics.”

Today, we're seeing such nations as China, Iran, Russia, and even North Korea developing such weapons and exporting them globally. As a result, even nonstate actors have these weapons. The Hezbollah recently fired a C-802 missile against an Israeli corvette.

The net result is that every navy—regardless of how big or small—may be faced with the prospect of being attacked, suddenly, by these advanced weapons from the sea, land, or air.

Now, antiship cruise missiles and antiship ballistic missiles are not the only growing threats to all navies. Advanced mines are proliferated widely. Diesel-electric submarines are proliferating widely. North Korea's unprovoked sinking of South Korea's ship, *Cheonan*, in 2010 should give everyone in this room pause—an unprovoked, sudden attack.

Some naval analysts have posited that the proliferation of mines, diesel submarines, antiship cruise missiles, antiship ballistic missiles is going to create a no-man's land along the littorals and will extend the littorals far beyond the shores to the maximum range of these advanced missiles. This is a growing threat that impacts every navy, regardless of whether it's small or large.

We are taking deliberate steps to ensure our Navy can sail wherever it needs to go, fight if necessary, and prevail if attacked. One of these deliberate steps, you may have heard, is what we refer to as an Offset Strategy. I'd like to take a couple of seconds to tell you what I mean by this term.

During the Cold War, the United States pursued innovative technological, operational, and organizational constructs to offset the Soviet Union's numerical conventional advantage. We didn't want to try to match them tank-for-tank, or plane-for-plane, or ship-for-ship, or submarine-for-submarine.

Our First Offset Strategy asked how do we improve conventional deterrence. Ironically, the threat of tactical nuclear weapons to deter a Soviet attack on Western Europe was the first offset.

Then in the seventies and eighties, when that no longer became credible because the Soviet Union had achieved strategic nuclear parity, we again changed our game by pursuing precision-guided munitions and the battle networks that employed them. This is a very important theme I'll pick up on in just a few minutes. By so doing, we bolstered conventional deterrence and made it unlikely that a collision between these great powers—the Soviet Union and the United States—would ever occur.

The offsets were all about making sure war would never happen, and not necessarily about making sure that we would prevail if one did—although that certainly was an aim also. But because of this proliferation of advanced weapons like ASCMs (antiship cruise missiles), ASBMs, advanced mines, cruise missiles, and submarines we think it's time to pursue a [Third Offset Strategy](#).

It's based on the premise that artificial intelligence and autonomous systems are going to allow new types of joint and combined battle networks, or collaboration networks or constabulary networks, that will operate advanced, new machine collaboration of extremely great power. It's going to allow delegation of authority when we operate together and when we operate with ourselves. These battle networks are going to allow new means, by which manned and unmanned systems are going to become common.

That's one of the themes I really wanted to get across with you. Generally we now think in terms of sending patrol aircraft or frigates of patrol ships into a certain area. In the future, there will be more unmanned systems that operate with us and among us.

This past spring, I had the honor of speaking at the commissioning ceremony for the [Antisubmarine Warfare Continuous Trail Unmanned Vessel](#), ACTUV for short. It was developed by our Defense Advanced Research Project Agency, in partnership with the Office of Naval Research. This is a fully autonomous warship: twelve knots, 10,000 nautical mile range, able to follow all the COLREGS [[International Regulations for Preventing Collisions at Sea](#)]. You literally could push a button on the ship in Norfolk and it would wind up in Bahrain on its own accord, safely.

It brings a whole new thought about how navies might operate together. I can easily imagine a future U.S. Navy, in which a [littoral combat ship](#) is the leader for a flotilla of active ships, operating as either antisubmarine warfare (ASW) pickets, counterpiracy pickets, ASW wolf pack, a mine warfare flotilla, or a distributed sensors after a major earthquake devastates the area, and providing communications to the land.

U.S. NAVY'S DISTRIBUTED OPERATIONS AND ITS THREE PILLARS

But even machine combat teaming is just one of the characteristics of the advancements in naval warfare. I want to give a shout-out to Admiral Phil Davidson and the conceptual Third Offset thinking that they're doing, under the rubric of what the U.S. Navy calls Distributed Operations. Distributed Operations has three key pillars. Now, this may change over time as the Navy experiments, but for right now their conception is [as follows].

First Pillar. [The First Pillar] is what I would call—they may not call it exactly this—distributed multidomain and multifunctional networking. All of the problems, that we are going to face, are multidomain. Space may play a part, and so may

air, land, naval surface, undersea, and cyberspace. It will be multidomain everything. You see this happening every day.

And multifunctional—some things will be offensive in nature, some will be defensive, some will do effects to allow us to respond to a certain threat, like illicit trafficking and putting up a network to stop that.

It is this multidomain, multifunctional battle network that is so exciting. Just this month, the Navy took an [F-35 Joint Strike Fighter](#) and had it act as an elevated sensor. It utilized its state-of-the-art, distributed aperture system to detect a stealthy cruise missile target. It then passed that quality targeting data to an [Aegis Ashore](#) site, which then finished the engagement with an [SM-6 missile](#) at a range far beyond the range of today's SAMs [surface-to-air missiles].

This short vignette tells you the power of this multidomain, multifunctional battle networking. It also shows why the F-35 is a stupid designator for that platform. In my mind it should be called the BN-35, for Battle Network 35. It is an exquisite node that can plug into any battle network on land, over sea, and in the air.

As more countries start to operate this platform together and start to understand the power of the network that it brings, I am confident it's going to change the way we operate together in any number of activities.

Second Pillar. [The Second Pillar] is what the Navy calls Distributed Lethality. As the battle network starts to distribute itself over wide areas, with every single node in the network, you would like to achieve some type of effect, be it electronic warfare, delivering supplies, or firing a cruise missile. This represents the right way, in my view, to address future war-fighting challenges at sea. It is a fundamental concept of the Third Offset.

It also draws on the historical lessons of the value of war gaming, and things like these symposia, where we come together, talk through problems, establish a cycle of learning that feeds back into fleet exercises or to combined exercises. And we feed that back into further war games and refine it.

Vice Admiral Rowden, in partnership with the fleet, conducted dozens of war games that are leading to fleet experimentation that demonstrates that our fleet will be able to do not only distributed multidomain, multifunctional networking but also Distributed Lethality.

Third Pillar. [Our Third Pillar] is what I'll call multidomain maneuver. The Navy is saying you've got to be able to maneuver in the electromagnetic spectrum just as easily as you can maneuver on the sea and from the sea.

I picked these three concepts because I think they're extraordinarily innovative and very, very promising for the future that the U.S. Navy sees, operating with navies of all stripes.

The Third Offset is not just about technology. It's not even about the technologies themselves. It's about smart strategists and operators putting together operational and organizational constructs, enabled by these technologies, which allow them to do new things in different ways.

COLLABORATIVE INNOVATION WITH ALLIES AND PARTNERS

This leads me to my final point. The key thing we learned in the Second Offset was the importance of allied participation. Immediately after the United States adopted

an operational concept called AirLand Battle, we went to NATO and NATO adopted a very similar operational concept called Follow-on Forces Attack.

We're going to be discussing with all of you the Third Offset, which is applicable across the full range of military operations—how we're going to be pursuing collaborative innovation with allies and partners. The growing challenges to naval operations—whether they are constabulary, counterpiracy, counterproliferation, or high-end warfare—are ultimately going to affect every single navy on the planet.

That is why the Navy is way ahead of the game in having symposia like this, where we talk about ideas that affect all of us. We figure out how best to collaborate and how best to interoperate. We must coordinate and collaborate on all of these problems, avoid duplication of effort, hopefully look for navies with specific niche capabilities and not duplicate them, and push our establishments to innovate in technologies and concepts, and do experimentation and war gaming.

We see this type of thinking bearing fruit already. The United Kingdom recently announced that it is going to buy the P-8 network, which is another battle network. It's not the P-8; it's the Battle Network 8. It will allow any navy to plug into a battle network, just like the F-35 will allow any air force or navy to plug into the battle network.

Given increased Russian submarine activity, which is a concern to NATO, the United States, the United Kingdom, and Norway are once again collaborating extensively on theater antisubmarine warfare, stretching from the GIUK [[Greenland, Iceland, and United Kingdom](#)] Gap all the way to the [North Cape](#) [in Norway].

The same thing is happening in the Baltics, which is one of my top priorities. I've been there twice. I'm going there again, trying to work out rules of the road.

The United States Navy has a long history of adapting to changing threats, identifying new approaches, and pitting our enduring strengths against the weaknesses of our adversaries. But the key strength—and it is central to our national defense, national security, and national military strategy—is that we desire allies. We want to work collaboratively through allies. That is the true strength of naval operations. The greater the number of navies involved, the greater the overall output we see.

That's a legacy that I know Chief of Naval Operations Richardson, Admiral Davidson, and all of the leadership of the Navy are committed to, and the Department of Defense supports them all the way.

So, ladies and gentlemen, thank you for traveling here. It's an extraordinary statement of how important we, as navies and coast guards, see the problems facing us.

DISCUSSION

Question:

I gave special attention to your statement about remotely operated ships, your project that will have a ship operating far away from base, without any humans on board. Would you say that we lose the added value of a human eye from the total evaluation of operations, when we go to such projects?

Response:

That's a great question. If I had had more time, I would have made this point myself. I'm glad you asked the question.

The United States is not trying to create killer robots or independent robotic ships that go off on their own. Our concept for our battle network is that the human will always—always—be in the loop.

Now, there will be some times where you're going to have to push the button on a machine and trust it, like if you're under cyber attack. We believe that will happen. When you're being attacked at machine speeds, human speeds just simply aren't enough. So you will press the button and trust your cyber defenses to fight off cyber attacks in real time.

Same thing in electronic warfare: you're going to have to have machines. We call it cognitive electronic warfare, machines that can sense new and novel waveforms and will be able to reconfigure their attack in real time.

In missile defense, as early as the 1980s when the Soviet Union was targeting our carrier battle groups with missile raids of up to sixty vampires, there was no way that the humans inside the combat information system would be able to keep up. That is why the [Aegis Combat System](#) has an automatic mode, which once saturation point occurs, you press the button and trust the machine.

In all other cases, especially anything remotely offensive, there will be a human in the loop. What it can do is independently navigate safely under the COLREGS system at sea. Right now, we're trying to figure out if, when it's close to the shore, it is able to operate safely among sailboats and fishing boats.

But there are sensors on that ship. So remote humans will know exactly what that ship is seeing and doing. Regardless of the mission, [for example] establishing a cordon to keep pirates from coming into an area, it will be the human that decides what type of action to take.

These unmanned systems will allow even small navies to control areas much larger than they could ever conceive. They will allow the commanders of the navy to have better situational awareness and to figure out plans.

I am not worried at all about unmanned systems. I am worried about unmanned systems where countries might design and say, "Go automatic. Decide who you attack, when you attack, what you attack." We don't see that happening, though, and we certainly won't be going that way.

Question:

You mentioned that the Baltic was one of your top priorities. Would you please elaborate?

Response:

Right now, we believe that the Russians are operating unsafely and unprofessionally on the seas and in the air over the seas in the Baltic region. We believe that we have to address this problem. Actually, Russia and some of the Baltic nations have said, "Should we get together to talk about this?" I know that it's now a subject for NATO, as well.

The United States constantly seeks confidence-building measures in all seas that are close to a great power, or even a regional power, where their interests are very, very high. We want to have confidence-building measures, so that we can operate where international law allows everyone to operate, so it's very safe.

Russian aircraft are operating in airspace without their transponders on and have caused diversion of civilian airliners. It's extraordinarily dangerous. So one of the

things we have been working on with our Baltic partners is what are some of these rules of the road that we might be able to work out with Russia to make sure that it is safe for all nations to operate in the Baltics.

The second thing we've talked about is [whether] there are areas that we all agree are unprofessional behaviors. Right now, as professional navy officers, you know that if something happens, going up the political chain to get a political decision on how to respond and what to say sometimes takes longer than you might otherwise like.

So one of the things we hope to do is say, let's agree on a list of behaviors that, if they occur, we automatically condemn without having to go through a large number of steps. We believe that will help bring down tensions.

It really is trying to encourage the Baltic-Nordic countries to act together. Sweden is doing Northern Flag, which is bringing together all sorts of air components in that region, in a very, very innovative air exercise.

We're all working together. The most recent BALTOPS, I think was one of the big-gest ever, in the number of ships.

So operating together in that sea—operating so that we interoperate together, we understand what each one is doing—that's very, very important.

And we're doing the same thing in the Western Pacific with Australia, Japan, and the Republic of Korea. We are also trying to establish as many confidence-building measures as we possibly can with the People's Republic of China.

Again, from our perspective, whenever you heard us talking about Third Offset or these things, we strongly believe that military confrontation is the absolute last thing you want to do. So everything we try to do is to lower temperatures and make sure that an inadvertent accident, or something like that, does not spiral out of control.

That is why we emphasize over and over, whenever there's a dispute, let's handle it through international law. Let's do it peacefully. Let's do it through negotiations. Let's try to keep the temperatures from rising. In this way, we think that we can preserve the peace. In my view, that is really what navies around the world are about: preserving the peace, enforcing the peace, and if necessary, compelling the peace, if our political leaders tell us to do so.

Panel Discussion Two International Norms and Standards

Moderated by

Rear Admiral Lars Saunes, Norway

Panel Members

Captain Sten Sepper, Estonia

Rear Admiral Kofi Faidoo, Ghana

Rear Admiral John Martin, New Zealand

Rear Admiral Lai Chung Han, Singapore

Rear Admiral Lars Saunes, Norway

Dean Thomas Mangold:

On the heels of our great talk by Admiral Verma is this panel on international norms and standards. It is going to be led by Admiral Lars Saunes from the Royal Norwegian Navy. Many of you know him already. He has been in command of the Royal Norwegian Navy for about two years. He's held a number of senior staff positions in Norway as well as in NATO. I am proud to say he is a graduate of the U.S. Naval War College. We're honored to have him lead this panel.

Rear Admiral Lars Saunes, Norway:

Thank you very much.



Panel Two members (L–R): Captain Sten Sepper, Rear Admiral Peter Kofi Faidoo, Rear Admiral John Martin, Rear Admiral Lai Chung Han, and Rear Admiral Lars Saunes.

On behalf of this panel, I recognize all the admirals, generals, distinguished guests, ladies, and gentlemen. Thank you also to the Chief of Naval Operations, Admiral Richardson, for arranging this great event and putting this team on the agenda. I think it's a very important team. I also thank the President of the Naval War College, Admiral Harley. It's a special treat for us to come back to Newport. We love it. We'd like to be invited again.

A Small State's View: We Love Laws and Regulations. It's an honor to be the moderator of such a competent and distinguished panel on international norms and standards. Looking at my fellow panel members, we clearly represent the small navy and small state. That's a voice that needs to be heard. That will be my lead into the topic today.

I start with providing a little bit of background, just to enlighten [you] on the challenges seen from small states. In a way, it is sort of the secret of why Norway became such a prosperous nation.

Norway is sort of a strange country, consisting of five million people, approximately the same as Rhode Island. And we are the thirteenth biggest maritime nation in the world. We have a huge maritime area from the North Sea all the way to the Arctic. Most of our wealth comes from the maritime, 80 percent actually. And we are really spoiled. Someone actually called us the spoiled brats of Scandinavia.

The reason for this—and this is the secret—we love laws and regulations. We love norms and standards. It's to such a degree that when the European Union, which we are not part of, decides on a new regulation, Norway will be the first one to adapt it. We do that with the UN, the IMO, everyone. We love rules and regulations.

That is why we are so rich, actually. As a small state, you need to adapt to the world. You have to plug in, wherever you can, and you need the bigger nations to protect you.

So we have a modern navy and coast guard—combining both military and coast guard functions in one navy. In addition to the military role, the coast guard function is taken care of, managing our territorial waters and exclusive economic zones and executing national police authorities in all our waters, in accordance with national law.

Why do I tell you this? I think there is sort of a Norwegian model. We do this because we are a small country with huge responsibility as a coastal state.

We are also in NATO. The Norwegian Navy is the NATO Navy on the northern flank of NATO. We are situated on the northern fringes of the Eurasian continent, with a common border to the [Russian Northern Fleet's](#) major strategic military basing. And we are operating together—low tension, high tension. We use the [Incidents at Sea Agreement](#) to sort of moderate how we behave, like you have the Code for Unplanned Encounters at Sea in Asia.

As a navy from an Arctic nation with a huge maritime area of interest and responsibility, we work very closely with the IMO to regulate Arctic standards and norms. We practice them when we have a global shipping fleet all over the globe. Coastal states are responsible for managing resources and the global environment. Yesterday's discussion was about the fight against illegal, unregulated, unreported fishing. This is clearly an issue that has reduced the prosperity of coastal regions. The coordination of regional and national laws in Europe dealt with this issue efficiently and banned all these fishing boats from entering any port in Europe. It also banned them from being sold in Europe. What we did, to a certain degree, was export this

problem to other regions. However, I believe the regional approach is the only solution to take care of this crime.

The international legal framework and regional regulations, or norms, are guiding our operations day by day. They are recognized by our neighbors, providing stability and prosperity in our region.

Global Changes. We are now facing the century of the oceans. The strategic landscape is shifting and we are facing more uncertainties. Competition in the maritime domain puts more stress on international law and regulations, increasing the potential for conflict.

At this time in history, I underline the need for good order at sea, nations that believe in cooperation and commitments to maintain peace and stability, and nations that seek joint development with their neighbors as their primary strategy for prosperity.

This morning we had the pleasure of listening to the CNO's Distinguished International Fellow, Admiral Verma, who shared his thoughts about the successful application of international norms and standards that have enhanced maritime operations to avoid misinterpretation.

There are other global changes that we need to take care of in the future in the maritime domain. And cyber—the admiral was mentioning it earlier. Who is taking care of our cyberspace? We all have Internet. We all have mobile phones. We all listen to music; download movies; and go to operating theaters that are dependent on the global communication, Internet, and submarine cables. Cyber is a submarine cable. Who is responsible for protecting that and the global infrastructure? Those are issues that are not really taken care of by the United Nations Convention on the Law of the Sea today.

The Panel. For the panel today, we are delighted to welcome four chiefs of navies from different continents, different cultures, and different histories. All represent rather small nations, and this is probably not coincidence. Small nations are more dependent on international law, as we are equally dependent on bigger nations for protecting international law.

I will introduce my fellow panelists. I start with Chief of the Naval Staff Admiral Peter Kofi Faidoo from Ghana. Admiral Faidoo served as a commanding officer of several ships during his career. During command of GNS *Sebo* (P27), as part of the West African Defense Alliance Naval Task Force, his ship almost single-handedly foiled the rebel invasion of Freetown harbor in January 1989. He was awarded a medal for leadership in action and made an honorary citizen of Sierra Leone for his effort.

Admiral Faidoo was promoted to rear admiral in January 2016 and appointed Chief of Naval Staff. He will share his thoughts about standardizing international law.

We also have the Singaporean Navy Admiral Lai. He's a graduate from Cambridge, Harvard, and the U.S. Naval Staff College. He has a background in missile corvettes, [and experience] as a commanding officer. His ship, RSS *Valiant* (91) won the Fleet People's Excellence and Unit Excellence Award. In 2011, he was appointed Fleet Commander and after different positions, he was promoted to rear admiral in July 2014 and assumed the appointment as Chief of the Navy.

From New Zealand, we have Admiral John Martin, Chief of the Royal New Zealand Navy. He holds a master's degree in strategic studies and a postgraduate

diploma in business and administration. One of his career highlights was command of the HMNZS *Te Kaha* (F77), 2001 to 2003. He undertook a number of deployments, among others, the Gulf of Oman for maritime interception operations. He was appointed the Chief of the Royal New Zealand Navy in 2015.

And we have, from Estonia, Commander of the Estonian Navy, Captain Sten Sepper. Captain Sepper is a former commanding officer of minehunters and commander of the **Baltic Naval Squadron**, consisting of Estonian, Latvian, and Lithuanian vessels. He became the Commander of the Estonian Navy in July 2012. He will be first, giving a presentation of emerging historical threats.

EMERGING HISTORICAL THREATS

Captain Sten Sepper, Estonia:

Chief of Naval Operations Admiral Richardson, Rear Admiral Harley, heads of the navies, heads of coast guards, distinguished guests, ladies and gentlemen, and dear friends, it's a privilege to be here at that International Seapower Symposium and give you a perspective of the coastal navy from Estonia.

Admiral Nirmal Verma and Deputy Secretary of Defense gave very comprehensive overviews and set the scene for our panel. I will go forward in their keel water.

Old Habits Emerge Again. When looking at the threats, one always starts with the examination of the surrounding environments. There are still some factors, namely geography, that have not changed significantly. They could be considered one of the most prominent constants, that dictates the choices of all parties involved, and channels our actions.

However, based on the developments in the South China Sea, as an example, one could speculate that, perhaps, we have entered an era where even geography can be manipulated. Hence, we have lost all anchor points, making the environment—where we need to make choices—extremely volatile and dynamic, on a constant basis. This would have a significant impact on how we see our operating environment in the future.

Discussing the changes that have taken place in the geopolitical arena, we see that the boundaries, at least in Europe, have changed significantly. Some former alliances have faded into history. Others are doing well and expanding.

For a while during the last two decades, it seems that a fragile balance had been reached and the world was settling down. This, however, was an optimistic illusion.

The threat related to geopolitical aspirations of some states never faded completely. It was merely suppressed due to the unfavorable political and economic environment. Once the conditions improved, the old habits emerged again.

To an extent, it has been ironic. Today, those who need to deal with these so-called changes in the security environment and tackle the emerging historic threats have themselves, either knowingly or unknowingly, contributed to the enabling conditions for those threats.

With some liberty, one could say that we're all facing yet another self-inflicted problem, caused mostly by our unfiltered, naïve optimism and lack of sound military judgment based on learning from our own history.



Developments in the South China Sea

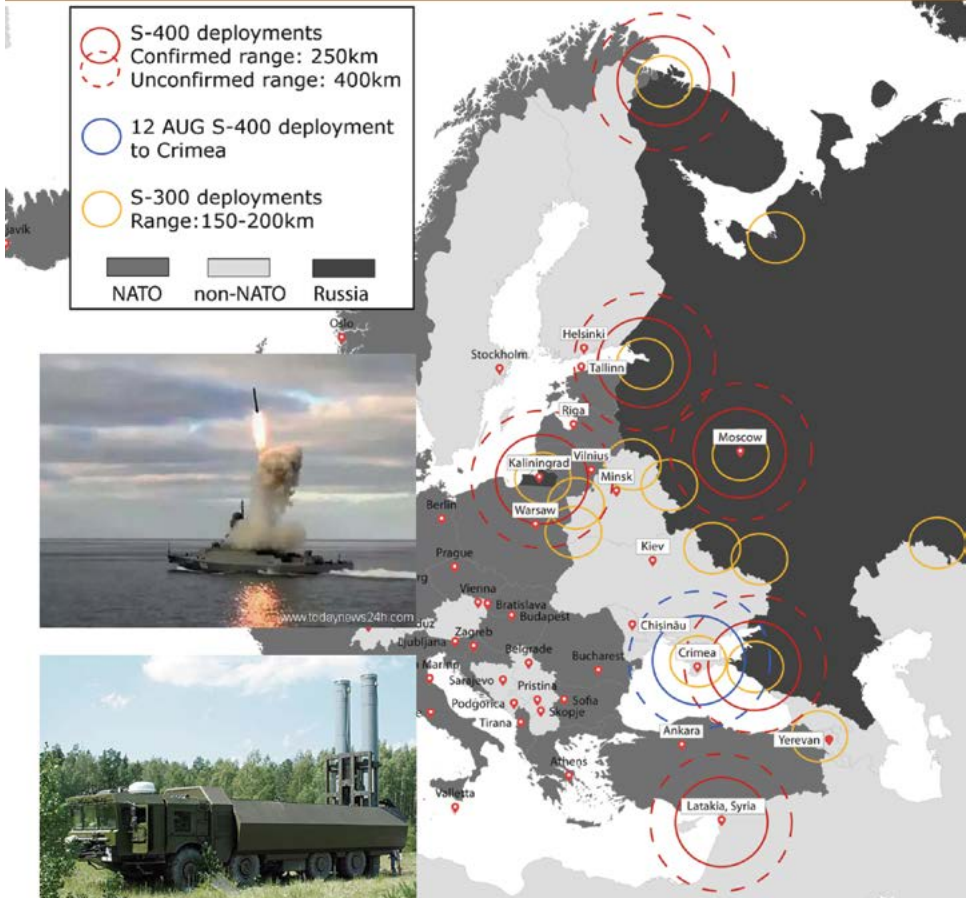
Technological Developments in Coastal Defense. When looking at the threat from the operational and tactical perspective, major change has occurred in the technological development of capabilities available. The operational concept and tactics have not changed significantly.

The proven concept of layered coastal defense in depth has constituted a significant military challenge in the domain where we most likely will be operating in the future—the littoral. Developments have occurred in anti-air capabilities and the range they provide. In parallel, the evolution of conventional submarines: small, fast, and agile surface combatants; and the missile payload that both subsurface and surface assets are capable of carrying multiply the conventional coastal defense bubble by tens, in the context of a modern anti-access / area denial (A2/AD) architecture.

Developments during the last two decades in many Western navies, due to various reasons, have shifted the focus toward out-of-area, expeditionary missions. Hence, we have lost a lot of know-how and expertise in how to fight the war at sea and in the confined and shallow littoral areas. Our assets are usually not suited for that type of tasks. Even if we would manage to shift the focus toward more balanced fleets, it would take decades to reach the actual results.

As a consequence, we have lost volume in assets. Our navies keep shrinking. We have lived it with the idea of uniting the air force based on the European example. Even the idea of the European defense forces, or similar, has been discussed, but we have not been extremely successful in this aspect.

Currently, we do not have a sound and solid solution for how to tackle the modern A2/AD threat in the confined and shallow littoral domain.



Developments in conventional coastal defense

Conclusion. Our societies do not believe in the possibility of an armed conflict, at least not in Continental Europe. We believe that peace is eternal and hence, we do not need to prepare ourselves and our societies.

There are a number of other, more acute problems to deal with, for example, the refugee crisis, the economic crisis, etc. We do not think what our course of action would be for the worst-case scenario.

The relative absence of threat, during the last decades, has been a well-cultivated illusion. The threat has always been present and lurking around. It was hiding in the shadows, due to the unsuitable environment for it to emerge. As the conditions improved, the threat surfaced again, this time being more evolved. It caught us by surprise. All our guards were down.

Our current arsenal has no real effective means to deal with the threat in the littorals. Even if we decide to take it seriously, it will take decades to achieve any actual results. In the meantime, the threat continues to evolve and will keep one step ahead.

Rear Admiral Lars Saunes, Norway:

Thank you, Captain Sepper, for sharing your insights with us.

And our next panel member is Rear Admiral Faidoo. Admiral, I'm sure your background from operating in the Gulf of Guinea will aid nations bordering the great maritime space.

STANDARDIZING INTERNATIONAL LAW FOR ENHANCED MARITIME SECURITY IN THE GULF OF GUINEA

Rear Admiral Kofi Faidoo, Ghana:

Chief of Naval Operations, Admiral Richardson, and our host, Rear Admiral Harley; distinguished admirals; heads of navies and coast guards; my fellow panelists; and ladies and gentlemen, let me express my appreciation to the government of the United States and the U.S. Navy for giving me the opportunity to stand before such an august audience and make a few points about issues of importance in the Gulf of Guinea.

The “Hows” for International Law. Per my invitation, I have been asked to talk on standardizing international law. Recognizing that I am not a lawyer but just an operational practitioner, I have taken the liberty of rephrasing and tweaking it a little bit. I have decided to call it “Standardizing International Law for Enhanced Maritime Security in the Gulf of Guinea.”

The reason is that our interests in international law as navies is in what I call the “hows.” They include [the following]:

- How can international law serve as an enabler to our operations?
- How may international law hinder or limit the operational space and spectrum of maritime enforcement?
- How can the challenges of international law be addressed?

Clarity for these questions may be attained when the discussion is conducted within a realistic context.

So my aim is to discuss the topic, standardizing international law for enhanced maritime safety and security, with a view to proffering a way forward, using the Gulf of Guinea as a case study. I intend to cover the following: provide an overview of the strategic environment of the Gulf of Guinea, discuss the maritime security situation with a focus on piracy, use two case studies to highlight the legal challenges to maritime security enforcement, and share my thoughts on the way forward.

Strategic Environment of the Gulf of Guinea. There are several definitions of the Gulf of Guinea. Geographically it is the Atlantic coast, stretching from Senegal to Angola. Institutionally, the [Gulf of Guinea Commission](#), created in 1999, includes eight members: Angola, Cameroon, Congo-Brazzaville, the Democratic Republic of Congo, Equatorial Guinea, Gabon, Nigeria, and São Tomé and Príncipe. The coastline is about 9,500 kilometers and a vast maritime space that projects into the Atlantic Ocean system.



While the Gulf of Guinea's maritime profile presents positive activity such as fishing and exportation, organized crime undermines the region's potential.

The maritime profile of the Gulf of Guinea presents enormous opportunities for delivering positive human development for the citizenry. As developing countries that depend primarily on the export of raw material for foreign exchange, the significance of keeping sea lines of communication safe cannot be overemphasized.

The fishing industry provides employment for coastal communities and income-earning opportunities, especially for women across the country, thereby positively impacting poverty alleviation. The sea route is the means through which critical imports for domestic and industrial consumption are brought into both the littoral and neighboring landlocked states. Offshore oil and gas resources have also contributed favorably to the economy of the region and increased capital inflows.

In the global context, the maritime space of the Gulf of Guinea connects maritime traffic of multiple continents.

Maritime Security Situation with a Focus on Piracy. While these positive elements underscore the value of the maritime domain, organized crime undermines the maritime potential of the region. Decades of illicit trafficking in narcotic drugs fuels crime and imperils governance institutions. Food security is being threatened by illegal fishing activities and unsustainable fishing practices. And enduring piracy in the region endangers the safety and security of global shipping.

I listened with great anxiety as Mr. Chris Trelawny gave a grim appraisal of the African situation. Earlier, Admiral Verma also gave a long list of challenges in the maritime domain, all of which apply to the Gulf of Guinea. He rightly placed piracy first. I will now highlight piracy as one of the major challenges facing the Gulf of Guinea.

Piracy in the Gulf of Guinea has posed a significant threat to international trade and commerce for over a decade. This is epitomized by the spread of incidents across the region. Since 2010, reports from both the IMO and the IMB repeatedly rated the Gulf of Guinea as the most dangerous marine space in the world. Indications in 2015 and 2016 suggest that the piracy threat is not in decline, as pirates continue to imperil the safety of ships and seafarers in the region.

An example is the hijacking of the fishing vessel *Lu Rong Yuang Yu 917* off the coast of Ghana in February 2015. The hijacking resulted in the death of a crew member and multiple injuries to others.

Global attention is focused on addressing the piracy situation in the Gulf of Guinea. This has led to the adoption of [Resolutions 2018](#) and [2039](#) in October 2011 and February 2012, respectively, by the United Nations Security Council.

In between these two resolutions, the UN Secretary General, in November 2011, dispatched a special mission to the Gulf of Guinea to assess the piracy situation. Broadly speaking, the resolutions can be summarized in four key points. Namely, they

- Highlighted the implications of piracy in the region for global shipping and the safety of seafarers,
- Highlighted the negative impact of piracy on the development of the Gulf of Guinea region,
- Called on Gulf of Guinea states to undertake effective measures to suppress the piracy situation, and
- Called on the global community to support counterpiracy measures in the Gulf of Guinea region, through bilateral and multilateral initiatives.

In response to these Resolutions, the heads of states and governments of the Gulf of Guinea adopted the [Code of Conduct Concerning the Repression of Piracy, Armed Robbery against Ships, and Illicit Activities in West and Central Africa](#), otherwise known as the Yaoundé Code of Conduct, in June 2013.

The reality, however, is that piracy in the Gulf of Guinea remains a threat to the safety and security of sea lines of communication, evidenced by the multiple incidents of hijackings in 2015 and 2016.

This prompted another debate in the Security Council in April 2016, resulting in an [official statement of the President of the Council](#) on 25 April this year. It said, “The Security Council reaffirms its primary responsibility for the maintenance of international peace and security, in accordance with the Charter of the United Nations, and recognizes the primary responsibility of States in the eradication of piracy and armed robbery at sea.”

The statement expressed deep concern regarding the implications of piracy for the stability and development of the Gulf of Guinea. It also underlined the importance of determining the existence of any possible or potential links between piracy and terrorist groups in West Africa and the Sahel region. Finally, it urged states in the region to counter the threat of piracy and address the underlying causes, in close cooperation with organizations in the region and their partners.

Two Case Studies Illustrating Inadequate Legal Framework. Having given an overview of the Gulf of Guinea maritime situation, I will now proceed with the thrust of the presentation on standardizing legal framework by examining case studies on the legal security gaps in the Gulf of Guinea.

One of the major challenges confronting counterpiracy efforts in the Gulf of Guinea is an inadequate legal framework, including lack of harmonization of domestic and international legal instruments. This point is better illustrated by two case studies.

First Case Study: The MT Mariam Incident. In January 2015, the Ghana Navy demonstrated operational readiness, capability, and boldness by successfully tracking, boarding, and [arresting pirates onboard the MT *Mariam*](#). It is one of the few examples, in the global context, where pirates have been arrested at sea.

The vessel was hijacked by pirates off the coast of Nigeria and sailed into deep sea, where its oil cargo was transferred. The vessel then remained under the control

of the pirates, who, as subsequent investigations revealed, intended to use it as a mother ship to conduct further piracy attacks.

Upon receiving information of the piracy incident, a Ghana Navy ship sailed in search of MT *Mariam*, which was located and boarded by the Ghana Navy in the exclusive economic zone of Ghana. Eight pirates, with weapons and other gadgets, were arrested.

Despite the success of the operation and the availability of evidence for prosecution, the pirates remained in detention for over a year in Ghana and were finally repatriated to Nigeria. This is because the Criminal Offences Act of Ghana does not provide for the offense of piracy under international law.

In other words, although international law, codified in the United Nations Convention on the Law of Sea, has expressly defined the crime of piracy, and also vests universal jurisdiction over the crime, this has not been incorporated into Ghanaian domestic law. Thus, there was no legislation under which the pirates could be prosecuted by Ghanaian authorities.

Second Case Study: The Hijacking of the MT Maximus. The MT *Maximus* and its crew of eighteen were hijacked on 11 February, this year, off the coast of [Abidjan](#). The vessel was renamed MT *Elvis V* at sea, and at some point sailed into Ghana's exclusive economic zone.

MT MARIAM INCIDENT – CASE I



MT *Mariam*



arrested pirates

MT MAXIMUS INCIDENT – CASE II



source: hellenicshippingnews.com

GENERAL AREA OF INCIDENT

The hijacking of MT Mariam and MT Maximus highlighted the current legal gaps in the Gulf of Guinea.

USNS *Spearhead* (T-EPF 1) was in the region and played a critical role in support of the collaborative efforts of Benin, la Côte d'Ivoire, Ghana, Nigeria, and Togo. That eventually led to the boarding and arrest of the pirates by the Nigerian Navy, after days of surveillance and pursuit.

From the operational point of view, as was the case of MT *Mariam*, there are a number of positive elements in the MT *Maximus* incident.

The operation showed the importance of intelligence sharing. The intelligence originated from the French and was shared with Gulf of Guinea states. The incident also saw a good level of collaboration between the regional navies, especially Benin, la Côte d'Ivoire, Ghana, Nigeria, and Togo, as well as collaboration with multilateral partners, in this case, the U.S. Navy and French authorities.

The Nigerian Navy, in particular, deserves commendation for successfully undertaking an opposed boarding. This is a capability that many navies in the world lack, including those in the Gulf of Guinea.

At the same time, there were a lot of challenges with the MT *Maximus* counterpiracy operation. I will highlight only those relating to the scope of this presentation.

First, there is no framework that allows the pursuit of criminals at sea, across territorial seas of neighboring states.

Second, member states in the region have no clear legal regime, regulating the transfer of arrested pirates from one state to the other.

Third, there is no legal framework that provides a legal basis for operations with multilateral partners. Thus, for instance, had the USNS *Spearhead* arrested the pirates, the captain would have been saddled with legal issues, with all the attendant complications.

The Way Forward. I have used the two case studies to highlight the legal gaps in the Gulf of Guinea that must be addressed. What should we do going forward? What are the responses and structures that should be put in place? I have identified four areas.

Piracy Legislation. International law grants universal jurisdiction over piracy. This is codified in Articles 100¹ to 105² of the United Nations Convention on the Law of Sea. The provisions require states to repress piracy at the national level and also cooperate with other states in the suppression of piracy at the regional and international levels.

To give practical effect to the first obligation, Gulf of Guinea states are required to enact and enforce laws, covering all aspects of the crime of piracy. Currently, however, most of the Gulf of Guinea states lack piracy legislation. Togo is probably the only state in that area with an effective legislation in the region. Piracy laws of Benin, Ghana, and a host of states are outdated or inconsistent with the international law framework.

1. Article 100 of UNCLOS states, "All States shall cooperate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State."

2. Article 105 of UNCLOS states: "On the high seas, or in any other place outside the jurisdiction of any State, every State may seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith."

I've indicated that Nigeria initiated a process for the enactment of a law to combat piracy and other maritime crimes, but this is still under consideration. Ghana and other Gulf of Guinea states must, therefore, enact appropriate legislation for piracy, supported by effective prosecution and judicial structures.

Ratifying and Incorporating Suppression of Unlawful Acts at Sea Framework. The nature of maritime crime in the Gulf of Guinea demands that member states have a framework beyond normal antipiracy legislation. Traditional incidents of piracy involve hijacking of vessels for economic reasons—the stealing of cargo, money, equipment, and demanding ransom.

What we see in the Gulf of Guinea, however, is a combination of traditional piracy and insurgent activities at sea. Insurgent-type attacks are motivated by reasons other than direct economic benefit.

The framework for countering this threat is in two international instruments adopted in 1988: the Convention on the Suppression of Unlawful Acts at Sea against the Safety of Maritime Navigation and the Protocol on the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf. This protocol provides the means for securing offshore platforms and, by implication, energy security in the Gulf of Guinea.

These two instruments have been further enhanced by two protocols in 2005, bringing the SUA at Sea framework to four reinforcing instruments.

Despite the relevance of the SUA framework, the ratification and implementation of these instruments by Gulf of Guinea states has been unsatisfactory. Only Côte d'Ivoire is a party to all the SUA instruments, but has not incorporated the provisions into domestic law. The rest of Gulf of Guinea states, including Ghana, have at best only ratified one or two of the instruments.

Hot Pursuit and Transfer Arrangements. Effective maritime security in the Gulf of Guinea requires that incidents be investigated and the perpetrators of crimes promptly prosecuted. As shown by both the MT *Mariam* and MT *Maximus* case studies, piracy incidents in the region often involve transnational networks.

This calls for regional and multilateral frameworks that will allow the pursuit of criminals across maritime jurisdictions and the sharing of information for effective prosecution. The framework should provide for the transfer of arrested criminals from one jurisdiction to the other.

Tracing Proceeds of Maritime Crime. [Tracing the proceeds of maritime crime] is another needed response. [Editor's note: Time constraints prevented Admiral Faidoo from further elaboration.]

Conclusion. I want to reiterate that the global piracy statistics, for the last couple of years, show that piracy in the Gulf of Guinea is a major threat. While Somali piracy is noted as the highest threat to maritime safety and security in this century, the maritime security situation in the Gulf of Guinea equally poses significant threats to regional states and the global community.

Robust mechanisms are required to enhance maritime security in the region. Some of the lessons that have been learned from counterpiracy efforts in Somalia may be equally applied in the Gulf of Guinea.

This presentation, however, has shown that the Gulf of Guinea presents a set of legal challenges that must be addressed. Incorporating the recommendations advanced may enhance the effectiveness of counterpiracy efforts in the region.

Rear Admiral Lars Saunes, Norway:

Thank you for an exciting presentation and providing insight into the challenges in the Gulf of Guinea. Your effort in enforcing maritime security is truly important for all maritime nations.

Next is Admiral Martin, representing a small nation. I also find it interesting that New Zealand faces the same challenges as we do on the opposite side of the world.

NORMS AND STANDARDS THROUGH THE LENS OF A COMPACT NAVY

Rear Admiral John Martin, New Zealand:

Admiral Richardson, chiefs, ladies and gentlemen, and colleagues: it's a privilege to be here and an honor to work with you in developing peace and security in the global maritime commons.

Admiral Laurie Carr was here in 1968. He expressed the opinion that coming to the International Seapower Symposium gave him an appreciation for dealing with maritime challenges, and that, while each country had a different perspective, all had the same sorts of problems and were trying to deal with it in similar ways.

What we've heard is a repetition of that. If there's one thing that U.S. leadership in this area gives us, it is the opportunity to get together, every couple of years, and discuss these issues and expose them for what they are, which is really common problems.

We have an opportunity to talk about a similar thing, which Admiral Verma laid out. I'm going to talk about the standards and norms in the context of international law, the criticality of international law for operational transparency, and all this through the lens of a compact navy.

A Postmodern Navy and State. The descriptor "compact navy" is an interesting one. It sort of sounds a little bit like a mobile home, in terms of navies. We are, indeed, the second-largest navy in our region. It's a reasonably large region with a diverse fleet mix, scope of responsibilities, and available resources.

It's a navy that [Geoffrey Till](#) would call a "postmodern navy," a navy with a focus on protecting, not just our own domestic interests, but the system as a whole. A postmodern navy has strategic reach and a range of capabilities that cover a spectrum of combat. We don't have all of those capabilities, but certainly, I think, we are a postmodern navy.

And New Zealand is a postmodern state—that is, one that is instinctively collaborative and aspires to a cooperative system of openness and mutual dependence. New Zealand, therefore, deploys, like all of our countries, its resources—diplomatic, trading, cultural, and military—to promote a system of openness and mutual dependence. This is reflected in our own mission statement, "Advancing New Zealand's interests from the sea."

Given the overarching principle that New Zealand supports a system of openness and interdependence, we are strong proponents of international law and accepted norms and behavior.

Our recent [defense white paper](#) identified as one of our overarching national security objectives the need to strengthen the international order to promote security. It further identified that our interests are supported by the international

rules-based order, which disciplines the exercise of national power through international law, custom, and convention. It affords the same rights to all countries, regardless of size.

Preserving International Law—Our Obligations. Enjoying the benefits of such a framework means that New Zealand, like other countries, is obliged to fulfill associated responsibilities—that is, preventing and supporting the resolution of conflict within and between states and abiding by those rules ourselves in order to preserve their integrity.

Preserving the international systems of rules and laws imposes obligations on us, and, specifically, our navies. If we weren't so tied to the global system, we'd be focused just on our own backyard, but that's not the case.

Norms and standards provide a common framework for understanding and for working together. They can provide a bridge between different world views but also, where disagreement exists, can provide a framework to resolve disagreement.

—Rear Admiral John Martin,
New Zealand

New Zealand is a trading nation. Our first-world lifestyle is supported by a disaggregated, global trading system, based on free and open trade routes. It's based on the transfer of information and the free flow of funds. We rely not just on the security of our own trade routes, but the security of everyone else's trade routes, because, in effect, their trade routes are ours.

None of this, as we've heard time and time again, happens by itself. It depends on international laws, agreements, norms, and standards. We have a vital interest in maintaining those links in our supply chain, even

if we don't have the luxury of size and wealth. Like other nations we depend on larger nations adhering to internationally accepted norms and standards of behavior.

Layered Defense. To put it into a strategic framework, we have a layered defense. The outer layer of that defense is the adherence of other countries to international norms. The next layer is the network of networks, the flow of information, the discussion informed by events like the International Seapower Symposium. The final layer is the collective security at sea, provided by the cooperative efforts of our neighbors and international partners.

It is critical to us that the outer layers of our defense remain intact, because we don't have the resilience, on our own, to cope with these challenges if they're breached.

Our use of international law, and the exercise of these layers to enhance security, can be best illustrated in a recent example, where multilateral solutions were achieved with a multilateral approach to a multilateral problem.

New Zealand, along with a number of other nations, strongly supports international agreements around conservation efforts in the Southern Ocean, specifically the [Convention on the Conservation of Antarctic Marine Living Resources](#).

In 2014, one of our ships conducted a fisheries patrol in the Southern Ocean in support of the convention. It shadowed a group of illegal fishing vessels, collecting evidence, but was unable to board. As a result of the evidence collected, the New Zealand government persuaded a number of regional coastal states, represented here, not to allow the vessels to offload their catch.

More importantly, based on the ship's evidence, the European law enforcement agencies prosecuted the operation's organizers and closed it down. Nine companies associated with Vidal Armadores' syndicate were fined a total of \$19 million, disqualified from fishing activities, and banned from receiving European Union subsidies. Vidal Armadores himself and members of his family are also facing criminal charges in Spain.

A symptom of what Admiral Verma and Admiral Scott were talking about was a significant, if ill-informed, discussion in New Zealand that we should have been more aggressive in our interaction, putting a shot across the bows or using other kinetic measures. Such actions would have been illegal.

Instead, operating within international laws and norms, we achieved our desired effect. We upheld international agreement on the Southern Ocean and eliminated a longstanding illegal fishing operation, all within the framework provided by international law.

International norms and standards will be interpreted differently by nations, depending on [each state's] history, culture, and other factors. However, the great thing about this is that norms and standards provide a common framework for understanding and for working together. They can provide a bridge between different worldviews but also, where disagreement exists, can provide a framework to resolve disagreement.

As Admiral Verma underlined, international law applies to everybody or it applies to nobody. Recent events have seen selective application of particular pieces of international law, depending on the country and argument needing support. This is not unusual, particularly where great powers are concerned.

Historically, the pattern for small countries is to use the umbrella of international law up to the point where it's no longer needed and can safely be ignored. It may suit some states to be selective in their observance of laws. Just as nations use the umbrella of international law to grow, they also need it as they inevitably decline. It is in their interests to protect the law.

The test of international law is not just how it supports the weak but how it also supports the strong.

Compact Navies Playing a Disproportionate Role. The ability of compact navies to play a role disproportionate to their size should not be underestimated. We can and do lead conversations and initiatives. New Zealand was an early proponent of CUES. New Zealand has also, along with Brunei, another compact navy, co-chaired the [ASEAN Defense Ministers' Meeting–Plus Experts Working Group](#) on Maritime Security for the last three years. In November, this will culminate in only the second field exercise, which will be held in New Zealand.

The challenge for us is to meet our obligations and interests in the international community with very limited resources. We have students, trainees, and exchange personnel in a number of countries, who acquire experience and learning that, quite frankly, they cannot get in New Zealand. They also build valuable contacts; give us a "sailor's eye" view of other cultures and their navies; and hopefully create, in return, a better understanding of New Zealand, as well as our norms and standards.

We contribute where we can, perhaps only in ones or twos, or maybe a frigate here or an aircraft there. We contribute by assisting in the manning of the [Information Fusion Center](#) in Singapore, or the [UK Maritime Trade Operations](#) in Dubai.

And, of course, the government has expectations of our deploying ships and aircraft on global maritime security operations.

We contribute to conferences and symposia, such as this International Seapower Symposium, to hear other voices and to maintain the situational awareness of the international environment and how it affects us.

Conclusion. New Zealand is a postmodern state, whose ongoing prosperity is based on the international rule of law and supported by the norms and standards that make them work.

New Zealand's navy is an instrument of national power that contributes to the international defense and the international structure, which keeps our world safe. We rely on our partners in that system to make their own contributions and to ensure that the norms and standards, which benefit everyone, are upheld, not only for ourselves today but also for those who follow in the future.

Rear Admiral Lars Saunes, Norway:

Thank you, John. We now look forward to Admiral Lai's presentation.

ENHANCED OPERATIONAL ARRANGEMENTS

Rear Admiral Chung Han Lai, Singapore:

Admiral Richardson, chiefs of navy and heads of coast guards, fellow panelists and moderator, Admiral Lars, and ladies and gentlemen, I thank Admiral Richardson, Rear Admiral Harley, and the U.S. Naval War College for hosting the Twenty-Second International Seapower Symposium, and for inviting me to speak.

The Trinity—Maritime Safety, Security, and Stability. Lars has highlighted that we are from small nations and small navies. Let me begin with the assertion that it is in the interests of both big and small states to uphold an international order, based on international law and norms.

This assertion is not an article of faith but a reflection of the growing interdependence

Our navies need to translate and apply these laws and norms to what are called "operational arrangements" that can guide and govern our actions on the ground. It is these operational arrangements that make us stronger maritime partners.

—Rear Admiral Chung Han Lai,
Singapore

between states, connected by global trade, open borders, and transnational security challenges. That interdependence was spoken about in the regional symposium reports, the keynote address, the first panel on cooperative strategies and interoperability, as well as in Secretary Mabus's comments about the sea that connects and unites us rather than divides us.

As a small maritime state, Singapore's view is that international law and norms help enhance not just maritime safety and security, but also the stability of the maritime

commons. COLREGS and SOLAS [International Convention for the Safety of Life at Sea] have made seafaring safer by setting common rules for navigation at sea, as well as minimum ship safety standards, while the SUA convention as well as the ISPS [International Ship and Port Facility Security] Code have strengthened maritime security.

Most importantly, UNCLOS has contributed to the stability of the maritime commons by clarifying the rights and responsibilities of coastal and user states and establishing mechanisms for dispute resolution.

I refer to Admiral Girardelli's presentation, where he outlined safety, security, and stability as three sides of a triangle. If you think about it, it really forms a trinity, each mutually reinforcing.

Indeed, under UNCLOS the International Tribunal for the Law of the Sea (ITLOS) has over the past two decades adjudicated twenty-five disputes related to the interpretation and application of this UN Convention. Notably, Admiral Verma covered the whole survey of case studies. Of note, in 2012, ITLOS adjudicated the maritime border dispute between Bangladesh and Myanmar, which helped to diffuse rising tensions in the Bay of Bengal.

Besides ITLOS, other international judicial bodies, such as the International Court of Justice, have also contributed to the stability of the maritime commons by arbitrating interstate disputes, in accordance with international law.

And Singapore and Malaysia—we've had a decades-long dispute. We decided to submit this case for arbitration by the International Court of Justice. We committed to abiding by its ruling. The ruling was issued in 2008. It resolved the dispute amicably with minimal escalation on the ground.

Translating Laws and Norms into Operational Arrangements. As maritime nations, our respect for and adherence to international law and norms enhances the safety, security, and stability of the maritime commons. As maritime forces, our navies need to translate and apply these laws and norms to what are called "operational arrangements" that can guide and govern our actions on the ground. It is these operational arrangements that make us stronger maritime partners.

One such operational arrangement is the [Malacca Straits Patrol](#). This arrangement involves the littoral states of Indonesia, Malaysia, Singapore, and Thailand.

The Malacca Strait Patrol was initiated in 2004 to deal with the escalating pirating situation in the Strait of Malacca, which had placed a vital waterway on Lloyd's war risk list. This Malacca Strait Patrol was established on three key principles:

- Primary responsibility for the security of the Strait lies with the littoral states.
- User states and international organizations, such as the IMO, have an important and useful role to play.
- And very importantly, any measures taken must be in accordance with international law and be respectful of the sovereignty of the littoral states.

At its inception in 2004, one potential sticking point was whether each nation's maritime patrol aircraft would be able to operate in each other's airspace. As you know, the narrow Malacca Strait covers the territorial waters of the littoral states.

Backed by strong political support, we developed a creative solution. Every maritime air patrol would embark on what we call a combined mission patrol team, composed of military personnel from all forces. This allows aircraft to fly and operate seamlessly over the Strait of Malacca and over the territorial waters, without impinging on the sovereignty concerns of the littoral states.

Earlier this year in Singapore, we celebrated Malacca Strait Patrol's tenth anniversary and agreed that this successful operational arrangement should be extended to dealing with the emerging threat of maritime terrorism.

Recently in the Sulu Sea, Indonesia, Malaysia, and the Philippines also agreed on a new trilateral framework to deal with organized crime and militant threats there.

Modeled after the Malacca Strait Patrol, the [Sulu Sea Patrol Initiative](#) will feature intelligence sharing as well as coordinated sea and air patrols.

Beyond maritime safety and security, operational arrangements are also critical to enhancing stability of the maritime commons in a manner consistent with international law.

This is particularly true of the South China Sea, given the maritime and territorial disputes there. While Singapore is not a claimant state and takes no side on the competing territorial claims, we support the peaceful resolution of dispute in accordance with international law.

In July of this year, the Permanent Court of Arbitration [ruled on the maritime entitlements](#) of the features in the South China Sea. It's very important to note that UNCLOS or the Permanent Court of Arbitration ruling does not address or resolve the longstanding disputes over territorial sovereignty. This must be done through our foreign affairs colleagues, working toward a diplomatic and political solution.

But the onus is on our navies to strengthen the operational arrangements on the ground, to promote mutual trust, and to prevent miscalculation.

One way this has been done is through the Code for Unplanned Encounters at Sea, which twenty-one navies endorsed and adopted at the 2014 Western Pacific Naval Symposium, hosted by the People's Liberation Army (PLA) Navy.

During the recently concluded East Asia Summit, ASEAN and China issued a [joint statement](#) committing to the application of CUES as well as the early conclusion of a code of conduct in the South China Sea. Earlier this year, the PLA Navy proposed a [joint exercise](#) with ASEAN navies on search and rescue, disaster relief, and application of CUES.

Singapore is the ASEAN-China dialogue relations coordinator. In that capacity, we are very supportive of this proposal from China. At China's request, the Singapore Navy is facilitating discussions between the Chinese and ASEAN navies to plan and conduct this [ASEAN-China Maritime Exercise](#) sometime next year.

To quickly recap, as a small nation, as a small navy, our assertion is that international law, a rules-based maritime order, benefits both large and small states. By adhering to international law and norms, and then translating them to operational arrangements, this has strengthened maritime safety, maritime security, and maritime stability—the trinity that I spoke about earlier.

Safety and Stability Undersea. Thus far, our discussions have focused on the maritime commons, on and above the sea. My view is that a neglected domain, especially with the proliferation of submarines operating in the Asia Pacific, is maritime safety, maritime stability under the sea.

Given the shallow waters of the South China Sea, submarines there have, essentially, only a two-dimensional space to operate in. Without the necessary operational arrangements in place, a collision involving one or more submarines, in my mind, is an accident waiting to happen.

The consequences are not just catastrophic in terms of life and property losses, but they are also geopolitical, given the nature of submarine operations and the risk of misunderstanding, mistrust, and miscalculation.

Two years ago, at the International Seapower Symposium in 2014, Admiral Wu, Commander of the PLA Navy, spoke on this point. He reflected that when it comes to submarine rescue, what we need is not just an investment of resources and cooperation between navies. What we need is to build trust. I think he was right.

Since that time, we've been in discussion on how we can bring improvement to this domain. Over the last number of years, we have seen regional navies enter into submarine rescue arrangements. Our view is that these reactive measures are insufficient. Submarine rescue arrangements are reactive because they apply when an incident has already happened, with attendant risk.

Our proposal is to put forth a more comprehensive regional framework for submarine operational safety, comprising both reactive and preventive measures.

To allay your concerns, we are not proposing a water space management system for our region, like that we see in NATO. That would be a bridge too far for the Asia Pacific, given the sensitivity of submarine operations.

However, in our view, underwater safety can be significantly improved by sharing nonsensitive information, such as locations of fishing concentrations, mobile oil rigs, and very large crew carriers when they're doing towing operations, and so on.

In May this year, during the [Second Submarine Operational Safety Conference](#) held in South Korea, co-chaired by Singapore and South Korea, we introduced a Submarine Safety Information Portal, to strengthen underwater awareness and to reduce the risk of accidents. This portal is hosted on Singapore's Information Fusion Center website. I want to thank navies who have contributed liaison officers to staff the Information Fusion Center.

We proposed this portal. We also propose the establishment of an underwater Code for Unplanned Encounters at Sea. Today, the code applies largely to the surface. We need a chapter to deal with underwater safety.

This underwater Code for Unplanned Encounters at Sea will articulate a set of guidelines that both submarines and ships can take independently to prevent underwater accidents. This begins with very innocuous features—features and procedures that we're familiar with as practitioners, like the UNCLOS procedures. These very innocuous procedures, in our minds, can contribute to underwater safety, contribute to the prevention of underwater accidents, and help to mitigate risks.

Next May, the Singapore Navy will organize and host a submarine safety workshop, in conjunction with [International Maritime Defense Exhibition Asia 2017](#), to move this proposal forward.

Conclusion. International law and norms can enhance safety, security, and stability of the maritime commons. As heads of our respective navies and coast guards, we have an opportunity at the International Seapower Symposium and the obligation to translate and apply international law and norms to operational arrangements to guide and govern the actions of our maritime forces.

These operational arrangements will make us stronger maritime partners. Safer, more secure, and more stable seas will strengthen the strategic trust among our nations and our navies and form the bedrock for a more prosperous, interdependent, and peaceful, rules-based maritime order. This is in our collective and our national interests.

Rear Admiral Lars Saunes, Norway:

Thank you, Admiral Lai, for those suggestions for developing the Code for Unplanned Encounters at Sea and your insights.

DISCUSSION

Comment:

I'd like to relate [this discussion] to what Secretary of Defense Robert Work talked about. It is a very interesting approach to future warfare, the new Offset Strategy. But he talked about something that most of us, as small nations, can't afford.

I think we, the smaller nations, have got to hedge more on defense diplomacy and think about a similar approach to an offset, which addresses the "humanware" perspective, rather than just the hardware and software. We look at how to affect or influence the minds of the politicians or the minds of lawyers, for example.

Response A:

Thank you; that's a very good point.

I agree. Small, compact navies are challenged when it comes to resources. That's the reason why you find, in New Zealand in particular, a coordinated approach to maritime security, which is not just about ships and airplanes. It's also about diplomatic relationships, and it plays out in our need to reinforce international frameworks, and so on.

So, it's not just about this hardware and software. It's about relationships. It's about reinforcing frameworks.

The idea that we need to keep up with larger navies is a challenge in terms of the next generation of thinking that we heard. That's going to be a significant challenge. One of the ways we can do that, to at least have a chance, is through the development of good relationships to make sure that we have the right foundations to move forward together.

Response B:

Thank you very much for the comment. I think you are exactly right.

You talk about defense diplomacy, you talk about humanware. It's really about soft power. I suppose the Offset Strategy that Secretary Work outlined was about hard power.

Navies, as small as we are, need a combination of both hard and soft power. That gives us the construct of smart power. I would like to think that as we advocate for various operational arrangements—where there is CUES and so on—there's an exercise of smart power, bringing people together to agree to certain norms that are in our collective interests. Hopefully we can get the better outcome for our region.

Question:

The theme of the symposium is "Stronger Maritime Partners." Strength is not only in equipment and software, but also in relationships. Strength is in building trust among nations. You might have all the equipment you need, but if there's not trust between nations, you've got a problem.

You know the situation in the Gulf of Guinea. It is not a lack of knowing what we want to do. We know what we want to do, but there is lack of trust among the countries in that region. You have the Anglophone, the Francophone, and other challenges. How can we build trust so that we can work better in the Gulf of Guinea?

Response A:

We've been asked to be very free with our remarks, so I'm going to be very free with my remarks.

I entirely agree with you. We have had challenges in the area of trust. But I think to the credit of the U.S. government, and the U.S. Navy in particular, that over the last six, seven years with the prodding and prompting of U.S. Africa Command, we've managed to work together in this last few years, with both Anglophone and Francophone.

It was the case with Ghana, for instance, which is surrounded by Francophone countries and the sea, that we don't do a lot of French speaking. So we did not tend to interact and operate a lot with our neighbors, basically because of the language problems.

I'm not too sure about the trust as operators. We are all friends. As mariners, we all do our work at sea.

Of course, we have to depend on the good sense and the diplomacy of our elected officials to ensure that their policies will make us live in peace and harmony.

I would say that, perhaps, putting it as lack of trust is a little bit on the harsh side. It's just that we didn't have the opportunity, basically because of language issues.

I think you will agree that over the last few years, we've done a lot in that direction, especially with assistance of U.S. Africa Command. You talk of [OBANGAME/SAHARAN EXPRESS](#), and all those sorts of exercises. I think it's getting better.

Response B:

I would just underline that. You see the presentations about different regions finding different instruments to cooperate. It takes a long time to do that. It's often initiatives among countries that actually build trust to do things better, because they see the national interests of doing it.

Comment from the Floor:

Africa has some issues. To deal with these threats, we have to cooperate, share information, and harmonize legislation. That's very important for Africa, to tighten the law against piracy and other trafficking, and set up a subregional, continental strategy.

The international partnership has to be stronger for good maritime governance on the sea and the ocean below. The Twenty-Second International Seapower Symposium is one of the best strategic and global approaches to improving safety and security.

In this regard, the Republic of Togo will host the first [African Head of State Summit on Safety, Security, and Development](#) on 15 October 2016 to set up an African maritime initiative to deal with maritime threats, in order to boost the blue economy.

Let's go together. Your contributions are welcome for the success of this summit.

Question:

There was a question put to me that I answered to the best of my ability. I would like to pose the same question back to the panel, including the moderator: What options are available when a major power fails to abide by international norms and standards?

Response A:

There are different options. In our region, the main thing is good relations. There are also different forms of cooperation—a lot of exercising together, sharing common values, sharing maritime situational awareness at sea, and of course, trying to convince the bad boys that we are right and doing right things.

Response B:

When I heard this question, I cringed in my seat. As a small-nation navy, that is the reason why we participate: in the event that you get into trouble with a large-nation navy, someone else will come and give you a hand.

That's what I always thought the United Nations was about—collective security and ensuring the sovereignty of small countries or, in fact, every country. Regardless of size, each country is important. We felt that that was so important, as an international community, that we were going to uphold that.

I look with concern at countries that appear to be operating outside those frameworks and outside those norms. The international community seems to be unable to address it.

That's the reason why I think collective security and, in particular, the idea of collective thought. Exercising but also understanding values and ideals, is important. This is what this conference sets out to establish, as well.

Admiral Verma, just as you sidestepped the answer last time, I think the panel should do the same thing to you.

Response C:

What options do we have when major states or large states don't follow international law? That reminds me of the Melian dialogue, where the strong do what they will and the weak or small suffer what they must.

Thankfully, we are no longer in Ancient Greece, so that helps. In our generation, in this century, and the future that we see on the horizon, even big states are not too big to benefit from a rules-based international order. Where there's cyber warfare, physical space and physical size may not matter as much.

That's a point of asymmetry—cyberspace, space, and the whole host of transnational security challenges. For small states, it is really to make a persuasive case that this is a convergence of interests for big states to cooperate, for big states to contribute, for big states to be constructive. I think that's the only option we have. I hope that enlightened leadership will see that that is, indeed, the case, and indeed beneficial for the region and for the global order.

Of course, we try to apply smart power along the way when we can.

Response D:

This is the complicated thing. Actually bigger nations can learn from smaller nations. We are sort of forced to—when our sovereign rights or sovereignty are challenged—to follow the legal as long as possible, to avoid a military conflict, and to document what the different parties are doing and follow it up with diplomatic and international bodies. Our primary strategy is to avoid a military conflict.

Again, most nations are, in the end, entitled to defend themselves, either as a nation or in an alliance. This is sort of the two swords tactic. Even bigger nations will have a problem with that.

Presentation of the Hattendorf Prize for Distinguished Original Research in Maritime History

Awarded to
Captain Werner Rahn (Ret.)

German Navy

Rear Admiral Jeffrey A. Harley, United States:

We'd like to make two special presentations. I'd like to invite the U.S. Chief of Naval Operations, Admiral John Richardson, and Professor John Hattendorf to join me center stage.

**PRESENTATION OF THE NAVY DISTINGUISHED CIVILIAN
SERVICE AWARD TO JOHN B. HATTENDORF**

We'd like to recognize the man for whom the Hattendorf Prize is named, on the occasion of his impending retirement. We are blessed to have Professor Hattendorf's beautiful wife, Berit, here with us today as well.



Retired German Navy Captain Werner Rahn (left-center) is presented the Hattendorf Prize for Distinguished Original Research in Maritime History by Admiral John M. Richardson, Chief of Naval Operations. Also present are Vice Admiral Andreas Krause, Chief of the German Navy (right), and Professor John Hattendorf (left), for whom the prize is named.

Professor John Hattendorf is a legend here at the Naval War College and within the international circle of naval historians. The professional journal U.S. Naval Institute *Proceedings* has described him as one of the most widely known and respected naval historians in the world.

The foundation of his knowledge of naval affairs comes from his wartime service as a naval officer during the Vietnam era. He's also the author, co-author, editor, or co-editor of more than forty books on British and American maritime history and naval warfare.

He's won numerous awards for his contributions to the field of maritime history, including the Navy League of the United States' [Alfred Thayer Mahan Award for Literary Achievement](#) and the [Admiral of the Navy George Dewey Award](#) from the Naval Order of the United States. In March of this year, the University of Oxford awarded him its [Doctor of Letters degree](#), a rare earned degree above that of a PhD, recognizing his achievement as an authority on naval history.

He will retire from government service at the end of this month, fifty-two years after coming to Newport for his Officer Candidate School training in September 1964. We are blessed, indeed, to have him at the War College all of these years and to have him with us here today.

The award reads as follows:

The Secretary of the Navy takes pleasure in presenting the Department of the Navy Distinguished Civilian Service Award to John B. Hattendorf for distinguished service as the Ernest J. King Professor of Maritime History and Chairman of the Maritime History Department, U.S. Naval War College, from July 1977 to September 2016.

Professor Hattendorf set the international academic standard, demonstrating unrivaled dedication as a naval professional in both peace and war. Through his history of war expertise, he influenced strategic thinking in combined and joint operations, as an advisor, mentor, and teacher to chiefs of naval operations, operational commanders, and seagoing professionals.

Professor Hattendorf published sixty-five books and monographs, and produced 334 edited volumes, book reviews, and scholarly notes.

A historian who clearly stood out, he emphasized the humanistic approach in examining the phenomenon of war and the influence of history upon American concepts of sea power.

Professor Hattendorf's exceptional record of leadership and thirty-nine years of superior performance were major contributors to the remarkable success, enjoyed by the U.S. Naval War College, reflected great credit upon him and were in keeping with the highest traditions of the Department of the Navy.

Signed: Ray Mabus, Secretary of the Navy

PRESENTATION OF HATTENDORF PRIZE TO CAPTAIN RAHN

Rear Admiral Jeffrey A. Harley, United States:

We turn now to the recognition of this year's Hattendorf Prize winner. I'd like to invite Vice Admiral Krause, Chief of the German Navy, and Captain Werner Rahn to join Admiral Richardson and Professor Hattendorf on the stage. We are also blessed to have Captain Rahn's wife, Hiemke, and daughter, Claudia, with us today.

The purpose of the Hattendorf Prize is to recognize and honor distinguished academic research and writing in the field of maritime history. Today, the U.S. Naval War College is honored to present the third award of the [Hattendorf Prize for Distinguished Original Research in Maritime History](#). I believe it is particularly appropriate for us to make this announcement before the distinguished company of maritime leaders, who are participating in this International Seapower Symposium.

This prize is presented to recognize world-class achievement in original research that contributes to a deeper understanding of the broad context of interrelationships involved in the roles, contributions, limitations, and uses of the sea services throughout history. It is widely viewed as the most prestigious award that any scholar can receive in this field. We hope that it will serve as a permanent beacon to encourage and promote new scholarship in this very important field of study.

I'd like to thank, on behalf of the U.S. Naval War College, the Naval War College Foundation for permanently endowing the Hattendorf Prize, enabling us to present a \$10,000 cash prize. Ambassador Judy McLennan is here with us representing the Naval War College Foundation. Thank you, Ambassador. This endowment also allows us to present a bronze medal designed by Professor Hattendorf's youngest daughter, Anna Hattendorf.

Captain Werner Rahn, the Naval War College is pleased to recognize your achievements by naming you as the Hattendorf Prize laureate for your distinguished original research in maritime history. The award reads as follows:

This award is fully merited by your distinguished scholarly contributions to maritime history. You have shaped the world's understanding of German navies and traced their influence upon professional military education, among the rules of navies and sea power. Your definitive historical studies reveal the social dynamics of naval cultures in the broadest sense.

In particular, we honor you for your work as senior editor, with Dr. Gerhard Schreiber, of the annotated edition of the *War Diary of the German Naval Staff, 1939–1945*, that appeared over nine years between 1988 and 1997 in sixty-eight bound volumes.¹ Your impeccable scholarship on this huge documentary source has made your edition the single-most important authoritative source for the strategic and operational decisions of the German Navy during the Second World War.

Your operational histories and strategic studies of the German Navy, in particular, have informed contemporary practitioners to understand the

1. This effort was addressed by Professor John Hattendorf in "Review Essay: The War Diary of the German Naval Staff, 1939–1945," *Documentary Editing*, September 1996.

underlying politics of organizational group dynamics upon naval affairs, in both peace and war, over the entire scope of the German naval history, from 1848 to the present.

Your long and impressive naval service, combined with your continuing body of scholarship, represents a singular contribution to the future of the field of study in history.

This award honors you and your incomparable work as a naval professional and as a scholarly historian, expressing appreciation for your distinguished contributions in framing our collective understanding of the influence of sea power upon international history.

Presented this twenty-first day of September 2016 at the U.S. Naval War College, Newport, Rhode Island.

Captain Werner Rahn (Ret.), Germany:

Admiral Richardson, Admiral Harley, admirals, delegates, and ladies and gentlemen, let me at first express my deep gratitude that an independent panel of Naval War College faculty members has selected me as the Hattendorf Prize laureate for 2016. This news was a great surprise. It is also a great honor for me and, of course, for the German Navy.

I express my special thanks to you, Admiral Richardson, who approved that the award should take place during this important meeting of world naval leaders. Many thanks. In my life as a naval historian I wrote, among other topics, some papers about the U.S. Navy in World War II. Today, it's an honor for me to meet a Chief of Naval Operations.

During more than twenty years, I benefited greatly from the stimulating intellectual environment at the Naval War College, especially during my stay in Newport for six months in 1991–1992.

Last but not least, I pass my deepest gratitude to my friend, John Hattendorf, who was and is my best teacher and pilot for understanding the U.S. Navy and its approach to history.

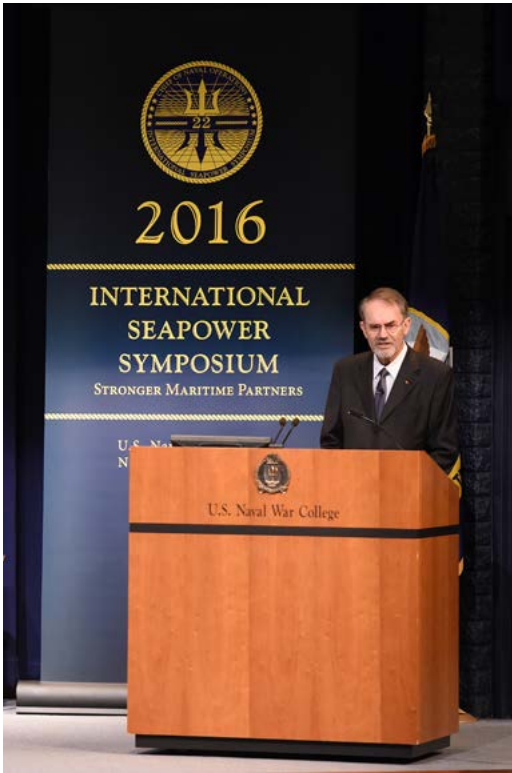
GERMAN NAVIES FROM 1848 TO 2016: THEIR DEVELOPMENT AND COURSES FROM CONFRONTATION TO COOPERATION²

Approaching Naval History. Military history deals with the evolution and structure of armed forces and their position in state and society. In this sense, naval history is taken to mean that part of military history that concentrates its studies on the navy.

However, when dealing with the fields of research, there is one sphere that is the greatest challenge for military and naval historians—I am referring to warfare in the widest sense.

In his book *The Face of Battle*, the British historian [John Keegan](#) pointed out that many historians are shy of exploring the profundities and realities of war.

2. The expanded, article-length version of these remarks appear in the *Naval War College Review* 70, no. 3 (Summer 2017).



Captain Werner Rahn provides remarks after receiving the Hattendorf Prize.

Generally speaking, it can be expected of military or naval historians that they have a certain affinity with the subject of their research. They should have a basic knowledge about the military in the same way that we expect an economic historian to have a sound basic knowledge of economic theory. Keegan is thus justified in demanding that the military historian should spend as much time as possible among military personnel, “because the quite chance observation of trivial incidents may illuminate his . . . understanding of all sorts of problems from the past which will otherwise almost certainly remain obscured.”

Like any historian, the naval historian bears a great responsibility in striving after historical truth, if he wants to be taken seriously. The uncritical patriotic history that used to glorify naval actions should be a thing of the past, nowadays.

Today, some historians tend to judge personalities, events, and structures according to today’s moral categories.

They end up, and I quote Professor Thomas Nipperdey, “putting the past on trial, and since the critical historian, armed with his generation’s self-confidence or with the progressive concept of the future, knows everything better, in this trial he will be prosecutor, judge and legislator all in one.”

In 1957, the German Navy began to develop a new approach in studying its own history. That year, the first Commander-in-Chief Fleet, Rear Admiral Rolf Johannesson, organized the Historical-Tactical Conference. Since then, it has been held every year. It is now a standard element of the naval officer’s historical education.

Admiral Johannesson’s aim was to distance himself from the subjective naval history about World War I. He hoped that a critical discussion of the past would teach the officers truth, loyalty, and moral courage, and that they would determine their own position more solidly by recourse to history and the federal constitution.

Up to 2016, fifty-six conventions have been held, covering a wide variety of subjects. Papers are usually presented by junior officers from the fleet, who are assisted by naval historians. The presentation of the papers and the candid discussion of subjects relevant to the business of the day usually give testimony to the intellectual talents among the Navy’s officer corps. Many an admiral-to-be made a mark when he, as a lieutenant, presented some critical theory, provoking the older generation’s opposition.

Today, the German Navy has both a lively interest in its history and also a special relationship with it. A clear link can be seen between the historical self-perception of its officers and the history of their service. In the past, this link often served only to secure the Navy's own position in its fight for recognition and even for its existence.

It is a perennial challenge to historians to try and come close to historical truth. The commercial success of popular publications as well as the number of visitors attracted to the museums indicate how many people have some historical interest.

This continuing interest is a stimulating challenge for professional historians. We should continue to try and present our findings about past backgrounds and structures in such a way that the message gets across. That is, that historical knowledge and sensitivity become stabilizing factors for a liberal society.

The Humorous Touch. If this calling sounds ponderous enough, we should not forget the humorous touch—it always was and will be a refreshing element of human life. I'll present a short example.

In 1943, the following story received clearance for publication in Germany, printed with 20,000 copies! I emphasize it is at the climax of the Second World War.

During an air raid on Berlin, a circus had been hit. Two lions escaped and were on the loose in Berlin. Nobody had an idea where they might be.

After a fortnight, one lion returned ruefully in his cage. He looked worn out and thin, and swore to his fellows, "Never again! I should rather put up with bad horse meat than have to find my own food in Berlin!"

The next day, the other lion came back, proud as anything, and fatter than he had ever been.

"Hello, where have you been?" the others called to him. "What have you been up to?"

"Who me? I was in the Naval Command Headquarters, and every day I had an admiral for supper. But be careful not to tell anyone. No one's noticed yet." And back he ran to the Naval High Command.

Let me add that in December 1943, the German Navy had, indeed, some 130 admirals. Of course, not all of them were in the Naval High Command.

However, according to this story, you may say that during two world wars, German admirals were eaten by a lion, called British naval power, and by an eagle, called U.S. naval and air power.

To draw another analogy from this story, you could say that after World War II, German military and naval archives were, indeed, eaten by British and American historians, while German naval historians, without any access to the documents, looked worn out and thin for nearly ten years.

Early Naval Cooperation. Let me present a short example of naval cooperation a long time ago. The first German Navy was established in 1848, when the conflict over the Duchy of Schleswig resulted in a war with Denmark.

For the buildup of naval forces, it soon became clear that almost all requirements for personnel, materiel, and organization could not be met. In October 1848, the first German Secretary of the Navy forwarded an official request to the U.S. government to assist the buildup of a fleet. In the United States, the German liberal revolution had been observed with interest and an open mind.

First contacts were established by the frigate USS *St. Lawrence*, which was visiting Bremerhaven in 1848. The ship and crew were enthusiastically received as envoys

of a hoped-for ally. The U.S. Navy began its support activities by rendering training assistance. The materiel support concentrated on providing the frigate, which transferred to Europe in summer of 1849.

Even though the duration and scope of this first American aid to Germany were limited, it was early evidence of American policy being ready and capable to support, across the Atlantic, the principles of democracy and liberalism.

Confrontations. First examples of confrontation were German naval activities to the United States, during World War I.

On 7 May 1915, the submarine *U-20* sank, without warning, the British passenger liner RMS *Lusitania*. This attack claimed the lives of 1,200 civilians, among them 126 Americans. That incident resulted in a severe diplomatic rift with the United States.

On 7 October 1916—nearly 100 years ago—the thirty-one-year-old Lieutenant Hans Rose, with powers equivalent to those of an ancient Roman proconsul (Rose's words!), headed his submarine, *U-53*, for Newport naval harbor in order to demonstrate the efficiency of German submarines—so to speak, a warning to the U.S. Navy. After three hours, Rose left Newport and sank five ships off the American coast, under prize rules. This action was observed at short distance by sixteen U.S. destroyers.

In the course of the twentieth century, Germany has twice tried to force a strategic decision in direct confrontation with the Anglo-Saxon naval powers by cutting the Atlantic shipping routes. Both attempts ended in failure.

The second defeat brought with it the end of the German Reich and the dissolution of all German armed forces.

The Western orientation of the Federal Republic of Germany led to the close binding of the new German armed forces into the Atlantic Alliance.

Long-term Cooperation. Let me finish with an example of long-term cooperation. Ten years after the surrender in May 1945 came the difficult new start for German forces. The Allied Forces supported the buildup, especially the U.S. Navy, with its then-CNO, Admiral Arleigh Burke.

During the first years of the buildup, a close cooperation and friendship developed between Arleigh Burke and Vice Admiral Fred Ruge, the first German CNO. Burke created a basis of confidence. He was firmly convinced that allied forces can only fulfill their common tasks if their cooperation is based on openness and mutual trust.

Vice Admiral Ruge succeeded in establishing this basis of confidence, which today has become a matter of course. This meant, for the Navy, the smallest of the armed services within the Federal Armed Forces, that for the first time in its history it was obliged merely to perform that function “which a German Navy can actually perform”³ in close cooperation with the great maritime powers.

Rear Admiral Jeffrey A. Harley, United States:

I think you'll all agree that we made a fantastic selection for the third award of the Hattendorf Prize. Captain Rahn, congratulations on your many accomplishments.

Admiral Richardson, Admiral Krause, Professor Hattendorf, thank you for helping to honor this great scholar.

3. For this quote, Captain Werner Rahn cites Dieter Hartwig in *Die deutsche Flotte im Spannungsfeld der Politik 1848–1985*, ed. W. Rahn and G. Fromm (Herford: Mittler, 1985), p. 197.

Cybersecurity's Role in Maritime Operations

Dr. James Lewis

*Senior Vice President and Program Director
Center for Strategic and International Studies*

Dean Thomas Mangold:

Our final keynote address is from Dr. James Lewis. He is from the [Center for Strategic and International Studies](#) in Washington, D.C. He's worked with the Department of Commerce; the Department of State, and the Department of Defense (DoD), most notably in OPERATION JUST CAUSE with U.S. Special Operations Command and OPERATION DESERT SHIELD with U.S. Central Command. He really understands our business.

Most importantly, at our last International Seapower Symposium one of the feedback items was that people wanted to hear about cybersecurity. It was clearly an interest item. It is a bigger interest item now. We brought in who we think is the best person to talk about cybersecurity.

Dr. James Lewis:

Thanks very much. I'm going to talk for about thirty minutes on cybersecurity. Then we can open up for questions.



Dr. James Lewis addresses the audience at ISS XXII.

One of the things that I hope comes across in this discussion is that we're now in a different era for international security. There was a period of about twenty-five years, after the end of the Cold War, where you had stable, great-power relations.

That period is over. There are new challenges, new kinds of disputes. The world is going to be different than it's been since 1990.

NO NETWORK IS SECURE

When we talk about cybersecurity, it's good to clear up a couple of things up front. No network is secure. Sometimes people will say, "Well, my network isn't connected to the Internet." It probably is and you just don't know it. Or they'll say, "I have an air gap." That's a great idea, an air-gapped network. I learned how to defeat that about fifteen years ago.

When you use network devices, computing devices, chips, industrial control systems, you're making a tradeoff. You're getting benefit, but you're also getting risk. At the same time, you're also getting opportunity. Your potential opponents face the same set of risks that you do. It's like any other weapon system. There's a tradeoff between the benefits and the risks.

Nonstate actors do not have the capabilities to do the most damaging cyber attacks. You'll hear this a lot of times—"Don't we have to worry about nonstate actors?" The answer is, in most things, and particularly in your line of business, no. That may change. We've been expecting it to change now for about a decade and it hasn't.

Right now it's state actors. There are multiple states pursuing offensive cyber capabilities—multiple being in the mid-twenties, maybe thirties. Many more are developing defensive capabilities.

CYBER IN FUTURE WARFARE

This is what warfare will look like in the future. An immediate reaction will be "Well, I don't have any of these capabilities. I don't know what they are." You probably do and you don't realize it. You use computers. You are familiar with electronic warfare. You've probably thought about how to modernize your intelligence, surveillance, and reconnaissance (ISR). Those are many of the components—but not all—of cyber warfare. So each navy has an incipient cyber capability.

One thing to bear in mind: you probably wouldn't go into a conflict without an electronic warfare capability. We're now at that point where that's true for cyber. You don't want to go into a conflict without some kind of cyber capability. If you go in without electronic warfare, it changes you from a vessel to a target. The same will be true for cyber.

The other thing that we know, based on about twenty years of experience, is that countries use cyber techniques consistent with their larger strategies and doctrine. If you think about what a country's goals are, what its strategies are, this is a new tool for national power. [States] use it as a new tool for national power.

The first cyber attacks occurred in the second half of the nineties. The first cases of cyber espionage occurred in the early 1980s. There's a great book—it's still in print, which tells you something—called *The Cuckoo's Egg*,¹ if you want to read it.

1. Clifford Stoll, *The Cuckoo's Egg: Tracking a Spy through the Maze of Computer Espionage* (New York: Doubleday, 1989).

We have two decades of experience with attacks and almost four decades of experience with espionage. So there's a lot of experience. I'm trying to base some of my remarks on this.

Cyber capabilities create a new operational space for force and for coercive action. This is an important distinction. You can destroy things with cyber attack. We've seen that in Ukraine. We've seen that in Iran. There's a [test video](#) on the Internet where you can see the United States blow up a generator at Idaho National Labs. You can destroy things. It's hard. Only a few countries have this capability, but it's possible.

More important is that we'll be manipulating—manipulating your understandings, your control systems, and creating an extended effect of the fog of war, which you know from Clausewitz. What is the strategic effect of this? To diminish an opponent's will and capacity to resist. In that sense, it is like any other kind of weapon.

Having said that, though, that strategic-level attack is unlikely. Sometimes people talk about cyber 9/11s or cyber Manhattan Projects. It's probably not going to be used that way. You could think of scenarios where I turn off the financial system, electrical grid, or the transportation system in an entire country. But what would I get from that? A lot of annoyed opponents.

So people probably aren't going to use this like it is a nuclear weapon. *The Economist* had a cover that had a picture that showed, like, a mushroom cloud. It's not a nuclear weapon. Hard to get that effect, and probably a waste of time.

[Cyber] is more like a precision-guided munition. The code that has to be used for cyber effect, very often, is tailored to a particular system. *Stuxnet* is an example. *Stuxnet* had a delivery vehicle, that's what escaped out. It was on thousands of systems around the world. It also had a payload, and it was designed for one specific target. That was the only target that was hit and the only target that was damaged.

PRECISION EFFECTS

Think of [cyber] as a precision-guided munition. Think of this as a new way to strike, precisely, against certain kinds of targets. The operational effect is really to degrade the performance of commanders, troops, and weapons. Let me do that in reverse order.

Most of your weapons run on software of some kind. They have chips of some kind. All those are good targets. You might think, "My weapon isn't connected to the Internet," but you might connect it to the Internet, at some point. In any case, I can use radio frequency to deliver to a weapon system.

One of the hidden battles of the last decade has been different countries trying to penetrate their opponent's weapon system to see what its capabilities are, learn if there's anything useful they can borrow to build their own weapons, and disrupt the weapon performance in combat.

This is just an expected part of conflict now. It's something that people should think about.

You may try a weapon and it may not work. Some open examples—they're a bit dated, but I'll use U.S. examples. At one point the Navy was computerizing a ship and they ran it on Windows. You all know Windows. If you say the word "Windows," that's immediately followed by "the blue screen of death." The operating system

crashed. The ship was unable to maneuver or sail and had to be towed back to port. You could probably do that with a cyber attack.

There was a more recent example, where a flight of **F-22s** was going from Hawaii to Japan. The F-22s crossed the international date line. Because of a software glitch, all their computer systems on the aircraft crashed. Software is really complex, every software has some error, and every error is exploitable. Fortunately, their engines continued to operate. Also, they were being refueled at that moment, so they turned around and followed the tanker back to Hawaii, because they no longer had navigation or instrumentation. You could expect that kind of effect, as well.

It may not be every weapon that's affected, but if you have ten, maybe eight of them won't work. Maybe two of them won't work. Maybe they'll go off course.

My favorite, of course, is **Blue Force Tracker**. Suppose I can scramble the red dots and the blue dots on your Blue Force Tracker, so you end up shooting at your own people. This is not a hypothetical example. It is a reasonable goal for this kind of cyber attack.

Disrupting logistic schedules—if you are traveling on the airlines, going to San Jose, California, your luggage will go to San Jose, Costa Rica. You can do that kind of thing, as well. U.S. Transportation Command here in the United States, for example, has been a target, multiple times, for penetration, exploitation, and possible disruption.

A good way to think about this is that you are operating with equipment that gives you tremendous advantage, but it also creates new vulnerabilities that people are trying to exploit.

A more interesting thing is, what does this say about use? I told you the payload was specifically designed for a certain system. Sometimes it only works once. This is sort of a debate topic: are these single-use weapons? You get attacked, you figure out what the problem is, you fix it, and the weapon doesn't work anymore in the future.

What does it say for use? It tells me, I should use it right up front and early. So in one sense, if you're seeing cyber activity against you, it is an indicator. It's a warning of something else coming down the pike.

Think about the **2007 Estonia incident**. Estonia suffered a series of fairly basic, primitive attacks against government networks and a few financial networks. I got to talk to the Estonia Minister of Defense. You read in the paper that Estonia was brought to its knees by this attack. They weren't brought to their knees. What they were afraid of, though, is that the attacks were a precursor to some sort of kinetic action, some sort of invasion.

Think of cyber as something that people will use early. It may be the first indicator that you're in some kind of shooting match. And if you have [cyber capability], you may have to ask, "Do I wait and lose the opportunity, or do I use it right away?"

CYBER, INTELLIGENCE, AND ELECTRONIC WARFARE

You know the intelligence aspects of this. It's been a goldmine for intelligence, not just for the the United States but for many other countries, as well.

The kind of operational security or communication security that you observe—it's hard for people to think about that, sometimes, in an Internet context. My favorite [example] is one country has been e-mailing beautiful maidens' pictures to your sailors, saying, "I want to be a friend." You know somebody's going to fall for that. The ability to

get into your network, get information, and use that information to improve their own planning and thinking about how to disrupt operations is a crucial part of this.

One of the things we're seeing is that cyber warfare is blending with electronic warfare, ISR, and intelligence assets. In the future, I think you'll see more of a combination between the people who do cyber, electronic warfare, and intelligence. Same sort of systems, same kind of thinking, same kind of intangible benefits.

The good news is, that means you probably already have some capabilities that you can recombine and get more punch on the cyber side. It's something to look forward to.

One of the things we ought to think about, too, is that it's likely that in a conflict people may not necessarily play in our lanes. You think about how you're going to use this stuff. The other folks may think about how to use it differently. So cyber conflict is not really a good way to describe it, because it will probably include attacks on space assets, weapons systems, and communications.

The goal is not so much to create physical disruption—a possibility—but to disrupt performance and, more importantly, to take the informational advantage away and give it to the other side. The other side will be able to make decisions quicker, more accurately than you. They will be inside your decision cycle. That's the real goal of cyber war, in some ways. I'm going to disrupt the information you depend on, whether it's for targeting, troop position, or whatever. I'm going to disrupt that and use it for my own advantage.

This is very much about [the question] how do I expand the fog of war.

One thing we talk about, sometimes, is hybrid warfare. I go back and forth on whether or not I like this term. Hybrid warfare, in some ways, doesn't capture the full part of this, but what it does point to is how war might be different in the future.

What you've got is a situation where we've had great power stability for twenty-five years. A couple of incidents shaped people's thinking about what that meant.

The first was the Gulf War where you saw a new way of fighting warfare that combined precision-guided munitions, space assets, and some of the informational advantages we're talking about to give the coalition side in warfare a tremendous advantage.

I was the fourteenth person to get to Riyadh, when the war [OPERATION DESERT SHIELD/STORM] started. We were talking to the guy I worked for. General [Charles A.] Horner [U.S. Air Force] asked me which prison camp I wanted to go to, the civilian or military. We expected tens of thousands of casualties.

That was not what happened in the war, and that was a shock for many countries. They realized that the militaries that they assembled were no longer effective and they needed to rethink how they fought it. That was shock number one.

Shock number two was the conflict in Serbia. You saw, again, the use of stealth, precision-guided munitions, informational advantage, and air assets. You had potential opponents begin to ask, "How do I get around these American advantages? How do I get around this Western way of fighting? What are things I can do that will allow me to operate without triggering this overwhelming conventional advantage, that will let me avoid deterrence in some ways? How can I circumvent deterrence?"

Our opponents, at least, have been thinking about this for probably close to twenty years now. They've made some real progress with some weapon systems. You know about GPS jamming, attacking space assets, or cyber warfare.

GRAY AREA CONFLICT

A more important part is exploiting ambiguities in international law and in strategies. What we've seen is conflicts where it doesn't quite rise to the level of force. It doesn't justify your right to self-defense under the UN Charter and international law. It doesn't qualify as an armed attack.

There's a gray area. What we've seen against the United States in the last couple of years is a whole set of attacks that fall into this gray area. If you think about Sony, nobody died. There wasn't any physical damage; it was clearly a coercive act. If you think about Iran and some of its attacks on our banks, clearly coercive acts.

There are other things you can point to. Currently I'm told someone's poking around in our electoral system. I think that's a coercive act, but it's not an act of war. Act of war isn't really a legal term. It's a way to coerce your opponent without triggering something that would let them use their military capabilities. We need to rethink how we respond to these kinds of incidents. We should expect that warfare will be different in the future. It will not be World War III. It will not be, necessarily, massed conventional forces engaged in conflict for years. It will be this kind of gray area conflict that's very difficult to deal with and requires some rethinking.

What we're seeing is a mixture of unconventional strategies. People are experimenting with [questions like] how do I get this advantage? How do I get a coercive effect without triggering deterrence, without triggering the use of force in response?

This is where cyber can be very useful, because it's borderline. A classic example would be [Saudi Aramco](#). Saudi Aramco was attacked and thirty thousand computers had their data destroyed. Was that physical destruction? No. Is it armed attack? Probably not. But it had a real effect. It had a coercive effect. That might be what I'd want to do to you. I'd want to go onto your systems, erase your data, change things around, and you'd have to make a decision. You'd probably have to talk to your lawyers, which is always painful.

What sort of response does this justify? The United States, in particular, is wrestling with the idea of proportional response. If you follow the Law of Armed Conflict, you want to be proportional in your response. What's proportional to wiping out the data on thirty thousand computers, or leaking the e-mails of Sony executives? Hard to figure out.

It's a gray area, and because the risks of open conventional conflict are so high more people try to exploit this gray area.

Exploiting ambiguity in international law will be emphasized here. In some ways, you don't want to think about cyber attack in kinetic terms. Yes, you can have kinetic effects, but it will be in this kind of gray area that we'll see most of the action.

INTERNATIONAL AGREEMENT AND DISAGREEMENT

Where are we on international negotiations? I was the UN rapporteur for three successful negotiations. Another negotiation has just started, but I was excused from duty.

There is international agreement, to some extent, on how to treat cyber warfare. That includes the Law of Armed Conflict. There is agreement that the UN Charter

applies and that includes both the ability of states renouncing the use of force and the ability of states to exercise their legitimate right of self-defense if attacked.

So that's good news. We have agreement on those two things. We have agreement that sovereignty applies to cyberspace. We've embedded it in the framework of international law. That was 2013.

In the 2015 negotiations, what we thought was, "This won't be so hard. We've agreed on the big principles. We'll go into the details now."

There is no agreement on the details. People don't agree on how the Law of Armed Conflict applies, what a proportionate response would be, where it's appropriate to use cyber weapons, if you have to think about mass effect. There's no agreement on limiting [cyber weapons'] use in conflict, other than this general agreement that you should try and use them in a way that's consistent with the international humanitarian law.

We found that some countries argue that the precedent here is like outer space. We have the [Outer Space Treaty](#) from the 1960s that bans weapons of mass destruction being placed in space. Some people say we should ban attacks in cyberspace. Unfortunately, the two countries that are most active in advocating in that position also happen to be two with the most powerful cyber-attack capabilities in the world. But this is the UN. Your behavior doesn't have to be consistent with what you say.

Other people say, "No, we're all doing this. Just recognize it. It's going to be part of warfare in the future. Let's just say that you use it the way you would any other weapon. You think about the collateral damage. You think about the effect. You try and restrict it to legitimate military purposes."

There is a dispute here. How this dispute will turn out, I don't know. But it means that in the near term, we're unlikely to see any sort of agreement constraining the use of cyber attack in conflict or, frankly, in peacetime. This will be part of how people move ahead.

CYBER: 100 PERCENT LIKELY IN THE OPERATIONAL ENVIRONMENT

The use of cyber means in conflict—and conflict is more than armed conflict, it's this broader notion of hybrid warfare or other activities—the use of cyber techniques in conflict is 100 percent likely. And the more advanced the opponent the more likely you are to see them attempt to use cyber effects.

It will be part of your operational environment.

Sometimes people call it a new domain. One of the benefits of calling it a new domain is that it makes it easier to think about. You could think about how you'd train, equip, operate in a new domain.

But it turns out to be relatively difficult to work through the organizational and doctrinal aspects of cyber warfare. It's just different enough that you have to think about it. The United States and others have been experimenting with different organizational models, different ways to structure. One of the debates [asks] is it like U.S. Strategic Command, where you have a global mission, or is it like a supporting command, where you assign people to one of the regional commanders to support their operations. It looks like the answer is both for now. There is a global mission. There is also an ability to send people to support regional commanders.

This is a period of experimentation, while people develop the weapon, while they think about how they'll use it, and how they think they'll get advantage from it.

This is just part of how warfare will change. This is not a surprise. Since the start of the Industrial Revolution, new technologies have come along and people have figured out how to use them to get military advantage. That's what we're doing now with this.

In some ways, you've been through this. Navies have certainly been through this before. Think about moving from sail to steam, moving from surface to air, then from surface to subsurface. Think about the introduction of precision-guided munitions and electronic warfare. [Cyber] is a continuation of that path—of a new technology giving you a new way to exert force against your opponents and giving nations a new way to coerce or force other countries.

I focused a little bit on warfare. I want to clarify one thing: if you decided that one advantage is exploiting the blurring of the line between peace and war and you want to expand that gray area, making it difficult for your opponent to react—you can see lots of examples of that in recent years.

How do I get into this gray area? Cyber is a great way to do it. It may not be conflict. People are testing different attack capabilities.

You may have seen an incident involving a [German blast furnace](#) in the last year, where German operators lost control of the blast furnace. That was a test by another country of a cyber attack. It was an attack on an industrial control system, the kind of devices that run your ships. I can get inside them. I can monkey with them.

Don't think of war and peace anymore. Think about larger periods of conflict, where cyber is a great tool.

—Dr. James Lewis

As we move to merchant ships that have smaller crews, that are more automated, that are really run from their home port—that's a huge opportunity. They're going to communicate by radio. There's a very good chance that their radio signals wouldn't be sufficiently secure to prevent someone from getting in.

What if you take control of a merchant ship and make it sail around in circles? What if you did that? Is that an act of war? Not really. Is it a violation of your national sovereignty? Probably. How do you respond to it? You need to work that out in advance. Don't wait for the start of conflict.

WE'RE ALREADY IN A CONFLICT

In some ways, we're already in a conflict in many areas of the world. In other ways, people who will use [cyber], will use it in peacetime. Don't think of war and peace anymore. Think about larger periods of conflict, where cyber is a great tool.

Think, too, about how you blend it. The most advantage will come from a blend of cyber techniques, electronic warfare, information and intelligence assets, and space assets. If you can blend [cyber] in a target set, blend [cyber] in some more effective way, you will gain advantage.

This is a continuation of a trend that started a couple of centuries ago. It's an acceleration of the trends and technology changing how we fight. It's also part of a change that nations are less likely to do. They'll try to avoid direct conflict. They'll try to avoid major clashes. It may not always work.

The risk of miscalculation is really high because it is a new way to attack people. You don't know what the lines are. There is no international agreement on what the lines are. You may very well do something that you think is provocative and interesting and your opponent may well decide that it justifies some sort of forceful response.

It's a period of uncertainty and experimentation. That means you need to be experimenting. You need to think about how you will incorporate this capability.

DISCUSSION

Question:

I have two questions.

One is the challenge of designing attribution. The other is embedded malware that we may not have any cognizance of. You talk about indications and warnings, but perhaps there is embedded malware and systems that may be carrying viruses that we're not aware of until a critical moment.

Response:

Those are both great questions. Thank you for asking them.

An embedded malware issue is often called supply-chain risk. A while ago, I used to make fun of it saying, why would I bother? It's so easy to break into your network. Why would I get into a chip, change the code in it, and then hope the chip ends up in a weapons system that I can then exploit?

Any network can be broken into, but the cost of breaking in is great and has increased for some things. That means that a strategy that infects your supply chain with embedded malware is attractive. There's a lot of fun ways to do that. One project we did a long time ago with DoD was to ask suppliers where they got their software. You have the primes and they got [the software] from a contractor, and the contractor got it from a sub, and the sub got it from some guy he hired in another country that we didn't know about. They mixed open-source software—freely available software.

There are lots of points in that chain where I could inject something that would give me an advantage. The tools we have for screening software will not yet detect these vulnerabilities. They will detect maybe 80 percent of them, but it's a chance to get in. In the last few years, we've seen people begin to manipulate the supply chain and, in particular, it's semiconductors.

You need to just accept that you will be operating in a degraded environment, and that you will have systems that will not perform at 100 percent, or maybe not even at 25 percent. Your challenge is [to answer the question] how do I continue to operate effectively in this degraded informational environment.

The supply chain risk, the embedded malware risk, is no longer a hypothetical risk. So that's number one.

Attribution is a fun one. It comes up a lot. It's actually a problem in some ways. We will talk about how the United States does attribution and then talk about other countries.

In 2006 to 2007, roughly, DoD began to put a huge effort into improving attribution capabilities. The motive for that was if you can attribute an attack, you're more

likely to be able to deter it. The idea was that we'll reinforce deterrence by developing strong attribution capabilities.

This is something the United States has been working on for about a decade. It has had some effect. There's one line in the 2015 State of the Union address where the president refers to our improved attribution capabilities.

How do we do it? One of the issues that people have is that the private sector uses forensic techniques. Your computer gets hacked, there may be something left behind. You look at that and try to figure out from that who it was. And that's okay. That works maybe 25, 30 percent of the time.

Now, I'm going to reinforce it. The first way I'm going to reinforce it is I'm going to use my own intelligence capabilities. I'm going to sit on your network and see what you're doing. People can turn on the camera and microphone on your mobile device remotely, even if the device isn't on. So that's a golden opportunity. It seems cheesy, but a lot of us put tape over the camera if it's built in because it can be turned on. That's been true for more than a decade.

I have the ability now to see what you're doing. I can think about your doctrine, your plans, your operations, your units. Using that, I can reinforce the forensic activity.

It's the ability to blend the information an attacker might leave behind with all the intelligence sources you have—traditional signals intelligence, spatial intelligence, communications intelligence—with cyber espionage that probably has improved U.S. capabilities.

A former [National Security Agency](#) director told me that he could attribute accurately nine out of ten cases. It was funny watching the staff behind him, because all their faces looked really shocked. I think it's probably true. We can probably do three out of four. But it's by combining all these techniques.

What do you do if you're a country that doesn't have these techniques? The answer is you don't do attribution as well. This is a problem in negotiation. When we announce that we know it's North Korea, or whoever, people always say, "Show me." Well, sometimes we can't show you, because it [reveals] sources and methods.

The ability to attribute has improved. One of the things that is changing the environment is that you now can hire commercial actors who are not as good as the government but pretty good at attribution. There are three or four companies in the United States that probably get it right more often than not. That ability to hire a commercial service may give a country the ability to compensate for having less robust intelligence support.

The final note on this: I don't know how it will change warfare. The original thought was that if we could do better at attribution it would reduce the chances of attack. That's probably true, but it doesn't reduce the chances of people planning to attack you using cyber techniques, or planning to embed malware. I think we will see some change in the environment as a result of better attribution but not enough.

Question:

Can you comment about perspectives on ethics? Do people care about ethics in this kind of activity, especially when we talk about nonstate actors? Also, you know, young, smart people are not difficult to get. They're not expensive. How can this be controlled?

Response:

Another good question: what about hackers and nonstate actors?

One of the problems in assessing these people is that they tend to brag a lot. I was at a meeting once where someone from Google told me that Google has the same capabilities as the National Security Agency. I said, “That’s amazing. I had no idea that you guys had satellites and nuclear submarines.” Well, they don’t.

The community of people that do hacking, they’re doing it for prestige. They’re doing it for brownie points, in some ways. So let’s sort of break them apart.

There are perhaps twenty or thirty hacker groups in the world that are better than most states. They are at a level where, if you were ranking them as a country, they would be in the top ten.

Most of those hacker groups live in what we politely call Russian-speaking areas, and they can be proxies for the state. The most effective hackers, the ones who are the most skillful, live in a sanctuary where they are protected. They will not be arrested.

The only time we arrest these people is when they’re dumb enough to take a vacation in Thailand, or Turkey, or someplace like that. It is kind of Darwinian. The best hackers, the smartest ones, don’t take vacations abroad and we’ll never get them.

Why would they stop? Some of them have skills that are as good or better than most nation states, twenty or thirty groups. They can be used as proxies. There are a few states that depend on the hacker community and use it. Think of [these hackers] as a militia or irregulars. We know they take directions from state intelligence services. We know they cooperate and act in ways that are coordinated with military activities. They’re nonstate actors, but they are nonstate actors like a militia, or irregular forces, or guerrillas.

Those people are the best in the world. Their day job, however, is to steal money. They are in it for the money. Most of the big bank breaches you see come from these groups. They’re not sitting around. It’s not like the movies, where evil geniuses think about how they’re going to disrupt the electrical grid. There are evil geniuses, but they are thinking about how they’re going to get into J.P. Morgan and extract tens of millions of dollars. That’s their day job.

Next layer down is a broad class of people who are anti-establishment, anti-state, willing to take political action. Fortunately, so far, they do not have the capability to cause a lot of damage. They can cause embarrassment. They can probably break in and get our e-mails.

One thing I always tell the people who work for me is don’t write in an e-mail anything you wouldn’t want to see published on the front page of the *New York Times*. That actually happened to me in 1998. It was very embarrassing.

They can get your e-mail. They can, maybe, disrupt your data, but they can’t cause kinetic effects. In some cases, in particular the case of WikiLeaks—the entity that has released a lot of the material on the Democratic National Committee—WikiLeaks appears, and this is speculation, to be operating in concert with a foreign power.

You have this linkage between powers who want to avoid direct conflict, want to disrupt the United States and other Western countries. We’re not the only ones who suffer from this. If you want to call it hybrid warfare, call it hybrid warfare. One of the tools [these powers] use is proxies who can extract information. It then goes

mysteriously to outlets like WikiLeaks. It appears and causes a political effect. I think that's something to think about.

The ability to get that kind of information is relatively easy, because most networks are so poorly defended. One thing to think about: if you defend your work network really well, congratulations. They're going to go after your home network. If you think about defending your home network and your work network, that's great too.

They're going to go after your contractors. You have persistent opponents who are skilled and will look for that opportunity. You might never have thought about that. They may be breaking in, scraping your Facebook page. If you put things up on Facebook, they're going to look for that. There's a good chance that will tell them what your password is. You do have hackers who are relatively skillful.

The main difference, though, is the ones who live in countries that enforce the law tend to go to jail, within two to three years. The ones who live in countries that don't enforce the law are invulnerable. There is political intent here.

The ability to improve attribution and forensics means that more of these people get caught, if you find someone to enforce the law.

The final one to talk about might be groups like Daesh, or ISIS, or ISIL. They have done a tremendous job of using the Internet for recruitment, training, command and control, fundraising, and propaganda. They are, again, exploiting the existing structure of international law. You're committed to free speech. What do you do? It's very hard to draw the line here.

What we've seen, certainly in the last decade and maybe in the last twenty years, is opponents thinking carefully about where the gaps are in international law that they can take advantage of to achieve coercive or political effects.

Daesh, or ISIS, and al-Qa'eda do not have the ability to carry out the most sophisticated cyber attacks.

This is something I track very closely, in part because for the last fifteen years analysts have been saying Daesh and al-Qa'eda will get the cyber-attack capabilities they need to cause true disruption within the next two to three years. I used to believe that. The first time I heard it, maybe in 2006 or 2007, I believed it. I just heard it last week from a senior American official and he said two to three years, again. As long as it's two to three years out, I don't really care.

Eventually they will acquire [these skills], in part because there's a huge criminal black market. Going back to the hacker question—the number of exploits against commercial systems is in the millions. You can go into a black market and buy the tools you need to break into a network, to disrupt data, to exfiltrate data. You cannot yet buy the tools you need to cause physical disruption.

Even with that, Daesh, al-Qa'eda, all these groups have not bought the tools they would need for even information extraction. Their capabilities remain really primitive. It's something to track.

I look at Hezbollah as the most likely, because Hezbollah has a connection to Iran. Iran has a connection to Russia. Russia is probably the best in the world, with the United States, at hacking skills. Iran has improved radically in the last five years, going from basically zero to ninety. They now have the ability to infiltrate networks and possibly cause physical disruption.

In the Aramco attacks, they had the ability to manipulate industrial control systems. We don't know if they just didn't realize they had that or they chose not to do

it. But then if you think of the links between Iran and Hezbollah, it's like why not? You give them missiles, for crying out loud. Why don't you give them cyber attack? So far, it hasn't happened, but it's something to track.

So nonstate actors—think more of political effects but track their ability to cause disruptive or damaging effects.

Question:

Thank you very much for the presentation.

According to the latest military document of Russia, the Russians don't make any differences between the cyber, strategic communication, media effect, information gathering, and information sharing. They just use the term "information space," which means that everything is well coordinated.

What do we need to do to achieve a synergy across all these areas, using our capabilities?

Response:

That's a crucial point. I really thank you for your question.

One of the things that makes this difficult is that national doctrines, particularly among the leading cyber powers, are very different. We show up equipped to play one kind of game. They show up to play another kind of game.

For the Russians, the focus is very much on information, on opinion-shaping. They talk about preconflict opinion-shaping. How effective it is, is a matter of dispute. It was initially very effective in Ukraine. The effect has gone down as the information operations have become less connected to reality.

On the other hand, these information operations are part of a larger campaign to disrupt the transatlantic alliance. This is what is going on. I apologize if this offends anyone. But the goal is to disrupt the transatlantic alliance, to degrade the United States, and to attack the idea of democracy.

It's not just the United States that is suffering from intrusions into its Congress and its political parties. We've seen similar activities in the Scandinavian countries, Germany, and France. Their focus is less on kinetic effect.

We tend to think about [cyber] as a weapon. I can use this to make your ship stop working, to make your missile go off course or not work when you press the button. The Russians think about it differently. They ask, "How do I gain information on damage?" It's difficult to respond to. This is, of course, consistent with Soviet practice, going back to the czars.

If you think about disinformation campaigns, the use of information, there are two things that you can do about it. The first is that you have to have the basics of network security, because it's the ability to extract information and use it in politically damaging ways that has given these opponents tremendous effect.

Getting back to the attribution point—the first time we saw this kind of opinion manipulation was probably in 2008. You might remember that there was something called [Climategate](#), where the networks of a group of leading climate scientists were broken into. Embarrassing e-mails were extracted and then leaked to the public, disrupting the conference.

That's a tremendous coup, if you can derail a big, global conference.

It's likely we know who the attacker was, but we don't know it with the certainty that we know, for example, the Democratic Party, or the Bundestag, or any of the other recent activities.

The first thing you have to ask yourself is, are my networks meeting at least some basic level of activity? The answer is probably no, unless you thought about it. Most attackers get in, dwell for months. They don't have a lot of trouble. It's only the most basic techniques that are required.

You can change that and reduce the effectiveness of these operations.

The second thing, and it's a little harder, is you need to think about what's in your communications. This gets back to the e-mail point. It's unfortunate, because we've grown to depend on these networks, but you can't trust them.

So what is it you're writing? Is it encrypted? How well is it encrypted? Who controls it? You're getting back into a more traditional space for communications. It's very difficult for people to think, "I'm writing an e-mail. It's like a letter. It's private." It's not. Even at the most basic levels of security it's probably penetrable.

So I think the Russians have developed new tactics, new techniques that exploit the openness of democratic societies, that exploit the porousness, the vulnerability of existing networks. They figured out a way to use it for political effect and we have not developed good countermeasures. That's something, hopefully, we'll work on.

So what do you do? You leak the Democratic National Committee's e-mails? We had one senior officer once say, if you hack my companies, maybe I shoot a cruise missile at your space-launch facilities. The answer is no, you don't do that. That's disproportional. It doesn't make any sense. It's not a credible threat. It's not a credible threat to say you do this informational activity where no one dies and there's no physical damage, and I respond with a kinetic.

That's where we are. Our opponents have figured out strategies that evade the responses we have in place. Now we have to rethink them.

That's not a very satisfying answer. I wish I would tell you something else.

I was just talking about this yesterday with people from the U.S. Cyber Command and we're trying to figure out what do. It's a very difficult problem.

Question:

Could it be that the theft of identity within one country could be part of a plan for disrupting internal defense?

Response:

I think that's one of the fundamental questions for this discussion. I've picked on a few countries. There are many countries that engage in these activities. The extent to which they engage in them is shaped by their national interests.

All countries have some ability to carry out domestic surveillance of their internal communications. That usually means—I used to do this for a living—negotiating with people over what we call lawful access to communications. I never found a country that did not surveil its own citizens. I admit that I did not talk to the Vatican. So there might be one.

If you have the ability to surveil domestic communications, you can—it's a global network with global connectivity. Right now, Beijing is about ten milliseconds away from this auditorium. Moscow is about ten milliseconds away. It's a two-way thing. You can connect globally.

Some of it is resource driven. You need resources to have the most advanced capabilities to get into a network. But if you can do domestic surveillance, if you can do electronic warfare, you can think about how you could get into someone's network. What we've seen is that countries use these capabilities consistent with their larger national strategies.

I just gave a talk at the Organization of American States on confidence-building measures. Some of the ambassadors there said to me, "This is Latin America. We don't need confidence-building measures, because we're never going to go to war with each other."

They do need confidence-building measures, just to build confidence, to create transparency.

Countries have this capability, at least incipient. Militaries have this capability, if they have electronic warfare and ISR. It's incipient. The question is, how do they use it? The way they use it will be consistent with their larger national strategies.

You might want to [ask], who is it that would be interested in my information? It could be cyber criminals who are looking to gain financial advantage. It could be opposing intelligence forces who want to better understand your capabilities, plans, and intentions. It could be militaries who are prepositioning code for use in a conflict. Or it could be political activists who are looking for things they can do to shape your politics to embarrass you.

It's not a very nice environment, but that's what you're looking at—those people who are interested in hacking you.

Did I misunderstand the question?

Reformulated Question:

The stealing of identities within a country, could that be part of plans by these hacker groups to create disturbances within a specific country?

Response:

You have a device. It's running some kind of software or code. I want to inject additional code that will cause the device to either give me information or malfunction. We can call that malicious software, or malware. What are the ways I get in to do that? Some of it is through radio frequency.

I'm getting to the identity point.

A radar receives signals. Radios receive signals. I can use that as an entry point into your network, to inject malicious code. I can infect the supply chain. I can, when you're connected to the Internet, find out where you're connected, find some way to use that Internet connection to inject this malicious code.

I can think about poisoning websites. When you go to a website, or your crews go to a website, if they click on the website, they automatically download this malicious code.

A few years ago, some criminals decided it would be good to do this on the Super Bowl website in the United States, right before the Super Bowl was played. Fabulous success.

The most common technique for gaining access to someone's networks is to impersonate their identity. I think that's your question. The most common technique is called phishing. Hackers spell things funny. You get an e-mail that appears to be from a legitimate person? They've stolen your identity. Usually, they steal your

e-mail address. It's that appearance of being a legitimate e-mail that gives you access to the network.

A great one for business is an e-mail that comes with the subject line that says "Next year's bonuses." There's a file in the e-mail. It appears to be from your chief financial officer. They have his e-mail identity—you click on it and they're in. That one works really well.

Another one—a popular one now—is someone a couple of layers down in an accounting office will get an e-mail over the weekend from the chief executive officer saying, "I couldn't reach the chief financial officer. I need you to transfer \$10 million immediately to this client. Here's their new banking information."

When you put it that way, it sounds silly. Why would anyone be silly enough to fall for that? It works like a charm. It's happened multiple times.

The problem we have with identities in cyberspace is that it's easy to steal. It's easy to fraudulently purport to be someone. It's one of the weaknesses.

There are ways around that. The technical term would be "authentication."

Most people just don't steal identities for fun. They steal identities for some purpose, either for espionage or crime. It's easy to do. It's one of the things you need to think about.

Question:

Yesterday, in the context of the maritime domain, we talked about codes of conduct and the Code for Unplanned Encounters at Sea. We talked about the United Nations Convention on the Law of the Sea, largely to communicate, to limit miscalculation, and in some ways, to protect national domains.

There are a lot of parallels you can draw between the maritime domain and the cyber, if you want to call it a domain. Do you see in the future that we'll be adopting codes to limit miscalculations, to communicate intent, to protect national domains in a similar fashion that we have in the maritime domain, and what are the challenges to that?

Response:

That's a good question.

The short answer would be no, the way current trajectories are progressing. This began largely as an intelligence activity, so it has a high degree of covertness. Most countries still treat this as relatively covert.

If you've read the open-source material on U.S. doctrine and cyber capabilities, which is pretty limited, that's the most that almost any country has put out. Countries don't want to talk about this. They don't want to reveal their capabilities.

With a physical domain, you have a rough idea of what the capabilities are. We have a long history of arms-control negotiation. I can tell you range, payload effect. That's not true in cyber. In some ways, there's a powerful incentive not to tell people when you have a capability.

There are confidence-building measures that have been agreed to in the [Organization for Security Cooperation in Europe](#), the OSCE. Those include transparency in national doctrine, but not in capabilities in doctrine. They include creating mechanisms for regular exchanges on cyber capabilities to reduce the chances of miscommunication.

There are actually hotlines where you can call up to avoid miscommunication. The United States has this with Russia. I think we're developing it with China.

But the hotline idea doesn't make a lot of sense because if this was a covert attack, you call the other guy and say, "Hey, was that you?" If it wasn't him, he says, "No, it wasn't me." And if it was him, he says, "No, it wasn't me."

It makes people feel better to have hotlines, but I'm not sure they are yet robust enough. We need a deeper understanding of how this will actually work. We need more willingness of countries to admit they have the capabilities before we can reach that point.

Miscommunication is one of the great risks here, because you may be engaged in an intelligence operation and it could look like an attack. You may do something provocative, like turn off a power plant or a steel mill, and it could be misinterpreted as an attack.

So the risk of miscommunication, miscalculation is very high, because we don't have rules and because it's so covert.

Having sat through the negotiations on this for five years, I'm not confident that we'll progress any time soon.

Regional Breakout Group Reports

Moderated by Professor Thomas Mangold

Dean of International Programs, U.S. Naval War College

Dean Thomas Mangold:

We'll be doing regional breakout groups. I will act as moderator. We'll go to the first speaker, Vice Admiral Wijegunaratne from Sri Lanka.

INDIAN OCEAN–GULF OF ADEN–ARABIAN SEA–RED SEA REGION

Vice Admiral Ravi Wijegunaratne, Sri Lanka:

U.S. Navy Chief of Naval Operations, Admiral Richardson; President of the U.S. Naval War College; the chiefs of navies and coast guards; distinguished delegates; ladies and gentlemen.

The heads of the navies and coast guards from the Indian Ocean region had an excellent conversation about the ongoing challenges in our region. [We also discussed] the lessons learned and the way forward to deepen and strengthen our cooperative efforts.



You see the participating nations in the following graphic. You can see it's a formidable group: we are two nuclear powers, India and Pakistan; one continent, Australia; some of the world's largest oil suppliers; and some of the best tourist destinations in the world.

The Indian Ocean is talked about now. There's a lot of writing, [such as the books] *Monsoon*¹ and *Asia Looks Seaward*.² All of these books are saying that the center of gravity—of power—is shifting to the Indo–Asia Pacific region.

1. Robert D. Kaplan, *Monsoon: The Indian Ocean and the Future of American Power* (New York: Random House, 2010).
2. Toshi Yoshihara and James R. Holmes, eds., *Asia Looks Seaward: Power and Maritime Strategy* (Westport, Conn.: Praeger Security International, 2008).



Participating Nations

- Australia
- Comoros
- Djibouti
- India
- Iraq
- Jordan
- Kenya
- Kuwait
- Madagascar
- Mauritius
- Mozambique
- Myanmar
- Oman
- Pakistan
- Qatar
- Saudi Arabia
- Seychelles
- Sri Lanka
- Thailand
- UAE
- US

List of nations that participated in the Indian Ocean–Gulf of Aden–Arabian Sea–Red Sea region outbreak group

Persistent Challenges. When we go through the challenges, we have persistent [ones], even with the improved cooperation among the nations of the region and being well-supported by the extraregional powers. The security challenges in the Indian Ocean region remain unchanged.

Illicit Trafficking. First among the range of challenges is the trafficking of humans, narcotics, weapons, and other illegal goods.

Piracy. Piracy is the second ongoing challenge that we identified. As noted earlier in our meetings, instances of piracy in the Indian Ocean region have decreased due to our cooperative efforts. However, pirates remain—including their kingpins. Piracy could increase in the region if the underlying conditions change or cooperative efforts decrease.

Illegal, Unreported, and Unregulated Fishing. IUU fishing is an ongoing challenge across the region.

Terrorism. Terrorism remains both a regional and global challenge.

Pollution. Pollution is an ongoing issue in the region.

New Challenges. Some of the challenges are relatively new, or they are manifesting themselves in different areas.

Illicit Trafficking in New Areas. Trafficking of humans, arms, and narcotics have changed locations over time, and they appear as new forms. Cooperation on these challenges has to be achieved.

More Outside Actors. States and multinational actors from outside the Indian Ocean region are now more active in the region. The changes introduce new cooperation, and new patterns are emerging. This creates both opportunities for further

cooperation as well as potential challenges in understanding the intent of the new participants.

Changing Shipping Patterns. New and growing transit hubs in the Indian Ocean are appearing, such as Colombo Harbor, where a large number of containers are being transhipped. Because of that, it is important to reinforce efforts in combating trafficking and smuggling activities.

Social Media. Members of our group also pointed out the growth of social media as a challenge. It is widely and effectively used by criminals, terrorists, and nonstate actors for recruiting and inspiring the younger generation, and for sharing information.

Lessons Learned. The group discussed the increased operations that have occurred over the past years in the region, highlighting some of the key lessons learned.

- **Improved cooperation.** States in the region, with regional powers supporting, have increased information sharing, which has improved cooperative efforts. However, all the delegates agree that much more needs to be done in the area of information sharing.
- **Effective Antipiracy.** The delegates also noted, with gratitude, the effectiveness of the coalition in the antipiracy campaign.
- **Regional Centers Supporting Maritime Security.** It was noted that the European Union's support of the Regional Maritime Information Fusion Center and the Maritime Coordinating Center have been very successful in supporting comprehensive maritime security efforts.
- **Controlling IUU.** Several delegates pointed out that increased compliance with the European Union's regulations by states in the region has had a very positive impact on the control of some of the IUU fishing in the Indian Ocean region.

Building capacity successes. Finally, some delegates noted specific successes in bilateral cooperation to build the capabilities and capacities of smaller states.

Actionable Items. To build on these successes, delegates mentioned a number of areas where actions would be taken to deepen and expand cooperation.

More Information Sharing. As noted before, this needs to take place to support cooperative efforts.

Increase and Persist in Building Capacities. Larger states' assistance to the region's smaller states in building the latter's capabilities and capacities must increase and be persistent. The concept is to provide smaller countries with lasting capabilities to address the range of maritime security issues in their exclusive economic zones. All delegates recognized that such efforts are expensive, but will produce high returns.

Increase Antipiracy on Land. Despite the successes of maritime efforts in reducing the instances of piracy, delegates said efforts should be increased on the land to assist states in dealing with pirates, to produce more lasting results.

Increase Legal Assistance. Delegates indicated that increased assistance with legal frameworks and procedures for prosecuting maritime criminal activities would produce much better dividends. Similarly, a large number of delegates pointed out that there needs to be increased assistance with the disposition of seized narcotics, weapons, and criminals, such as pirates.

Broaden Efforts to Stop Pollution. Delegates pointed out that there are subregional efforts in cooperating on pollution. However, within the south region there

should be a broader regional effort to increase cooperation . . . to stop pollution or environmental disasters, which are likely to happen, and which are beyond the capabilities of any single state or subregion to contain or to mitigate.

Finally, let me thank and compliment Admiral Richardson and his able staff for a well-conducted Twenty-Second International Seapower Symposium. Sir, it has been a great experience.

Dean Thomas Mangold:

That was a great presentation. Thank you very much. The next report is by Admiral Luís Frago from Portugal.

ATLANTIC OCEAN

Admiral Luís Frago, Portugal:

Let me start by thanking and congratulating Admiral Richardson for the outstanding organization of this Twenty-Second International Seapower Symposium.

Also, I'm honored to represent the Atlantic Region Breakout Group. I would like to say thank you for the contributions from all the delegates of the group, composed of Argentina, Brazil, Canada, Cape Verde, Ireland, Portugal, United Kingdom, United States, and Uruguay, and for the support of Professors Vogel and Dombrowski and their staff.

Two years ago, this group decided to divide the Atlantic Ocean into four geographical areas in order to better identify specific impacts of enduring trends in maritime security. We admit that we found some different issues, and we confirm many of those in this following graphic. However, we realized that there are many common aspects—freedom of the seas and security of sea lines of communication

being the most evident.

This year we have identified the emergent concerns, opportunities for collaboration, and challenges that affect the Atlantic region.

Increasing Terrorism and Cyber Threats to Maritime Domain. As we heard from Dr. James Lewis, we can consider these taking remote control of merchant ships, or even weapon systems in warfare, like warships.

Return of Former Actors. They remember navies. There is a need to be prepared for the whole spectrum of action at sea.

Impacts of an Enlarged Panama Canal. Namely, these are the impacts on maritime traffic patterns, the design of ports and inland communication networks, and of course, sea lines of communication.





Future Enduring Trends in Maritime Security

- Northwest
 - Environment
 - North to Arctic
 - Traditional Partnerships
 - Emerging partnerships from south
 - Shared awareness
 - Cooperation on ongoing missions
 - HA / counter-trafficking / info sharing
 - SAR
- Northeast
 - Resource exploitation
 - Illegal fishing
 - Protecting citizens interests
 - Working w/ partner nations
 - Illegal immigration
 - SAR
- Southwest
 - Protect natural resources
 - Transnational crimes
 - Antarctica
 - Illegal fishing
 - Continental shelf expansion claims
 - Environment
 - Hazardous Cargo
 - SAR
- Southeast
 - Natural resources
 - Drug trafficking
 - Illegal migration
 - Illegal fishing
 - Toxic waste dumping
 - Information sharing
 - Coastal erosion
 - SAR

Enduring maritime security trends identified by the four Atlantic region subdivisions

Opportunities for Collaboration. We identified exchange of communication in the maritime domain awareness, namely, among maritime operation centers, to counter drug operations. There is also the opportunity for further development of regional organizations, such as CAMAS, or the South Atlantic Maritime Area Coordinator; Comunidade dos Países de Língua Oficial Portuguesa (CPLP), a Portuguese-speaking countries community; and Venice Regional Seapower Symposium. Additionally, there is an opportunity in continuing programs that assist in building up the maritime capability where needed.

Challenges. We started with unmanned vehicles—namely, the policy and regulation for their use. There are also the impacts they may have on the balance of forces, on manpower and affordability.

We identified the difficulty of obtaining a United Nations mandate and legal framework that would enable maritime partners' prosecution of illegal actors. One of the biggest challenges will be cooperation in the cyber domain, namely, information-sharing agreements among [those involved in] the Atlantic region.

Finally, we considered the role of navies in maritime security operations versus constabulary in the traditional defense roles, stressing the need to keep navies' capability to address the full spectrum of activities, from the low end to the high end.

This concludes my presentation. Thank you for your attention.

Dean Thomas Mangold:

Thank you, Admiral.

Our next presentation will be on the Mediterranean Sea–Black Sea–Caspian Sea region. It's to be given by Admiral Petev from Bulgaria.

MEDITERRANEAN SEA–BLACK SEA–CASPIAN SEA REGION



Rear Admiral Mitko Petev, Bulgaria:

Admiral Richardson, Rear Admiral Harley, distinguished colleagues, chiefs of navies, chiefs of coast guards, distinguished participants, delegates to the International Seapower Symposium, it has been a privilege to moderate the regional breakout group on the Mediterranean Sea, Black Sea, and Caspian Sea. It is an honor to back brief.

My job was very easy, because the contributions were outstanding. The representing people are not only good insiders but also practitioners who really shape the region. We have representatives from nineteen countries, which are shown in the following graphic.

I underline that there is no prioritization in the following list of challenges, because perceptions about maritime security challenges differ according to nations.

Nature of the Problem Drives the Scope of Response. This is a starting point, from where we can go deeper. The nature of the problem drives the scope of the response. If we need a cooperative response, that's supposed to build a mechanism incrementally: national coordination versus within the responding nation, then we go to regional cooperation. Global application is the final stage.

We cannot move to the next stage without having a good foundation for the previous one.

Cooperative Deterrence. One very important way to respond to maritime challenges [involves] the concept of cooperative response and cooperative deterrence. When we respond collaboratively and cooperatively to one problem, to one challenge, we demonstrate resolve. This is a very good conflict-prevention message. So cooperative deterrence will definitely be in place.

The Concept of the Wider Mediterranean. This was well understood by all participants. It should not be seen as a purely geographical sum of three water bodies: the Mediterranean, Black Sea, and Caspian Sea. It's a concept of nations brought together because of the interdependency of their social, economic, and political processes in the region. For example, a landlocked nation like Armenia is part of



Participating Nations

- Albania
- Algeria
- Bulgaria
- Croatia
- Cyprus
- France
- Georgia
- Greece
- Israel
- Italy
- Lebanon
- Malta
- Romania
- Slovenia
- Spain
- Tunisia
- Turkey
- Ukraine
- United States

2

List of nations that participated in the Mediterranean Sea–Black Sea–Caspian Sea regional breakout group

the wider Mediterranean because everything that happens in the Mediterranean affects its security, and vice versa.

A Graduated Response. Once again, it depends on what kind of maritime security challenge we discuss. Also, the scope is different. For example, we can add the western approaches of the Gibraltar Straits and the Red Sea when we're talking about freedom of navigation and other issues about maritime trade. Usually the most workable solution, for most cases in maritime security, is the so-called graduated response, where different agencies, nations, international organizations can be gradually involved.

Illicit Trafficking. Most important is the interconnectivity of maritime threats and maritime security in the region. That's why illicit trafficking is important and has global impact.

Mass Migration Crisis. This is among the top challenges in the Mediterranean. Everybody hears about recent developments in the area. We have to pay attention from the maritime security perspective. This migration brings other problems. It is a national security and a collective security problem. The maritime security problem in this mass migration is the preservation of lives at sea. Many incidents of sea-worthless vessels have caused massive loss of life. This is where our navies and coast guards are supposed to act. We definitely need a maritime response—an interagency one—that would be among other international organizations, with good coordination and cooperation.

Maritime security problems are generated ashore. Maritime security problems can be mitigated. Keep in mind that a solution is unsure, because the problem has been created ashore. We definitely have to act. We should not wait for somebody

else to do our job. This threat prioritization is very much [held] among participants. This perception definitely will bond resolve to act ashore.

Inadequate Information Sharing. It is interesting that our region has a very rich capability of gathering information. Still we have a problem with information sharing and processing of this information. So different organizations, different nations, different communities have abundant information, but still the level of sharing is not as we wish.

Accessibility of choke points is crucial. One important feature of the region is that it's surrounded by choke points, and accessibility of these choke points is crucial. If we look at the Mediterranean at large, we can even say that the Mediterranean itself is a choke point, because it's only 1 percent of a global ocean. At the same time, we have about 20 percent of global trade crossing the Mediterranean. So freedom of navigation is not just a regional, but also a global problem. We need to defend this very vigorously.

On the other hand, all the choke points for the Mediterranean and inside the Mediterranean region are surrounded by multiple nations. Accessibility relies not only on the nations that control these choke points, but also the neighboring ones.

Building on Existing Initiatives. It is very important that, in order to have deeper and wider cooperation, we use tools already in place. There are a lot of subregional cooperative initiatives that are workable, and they have success stories. To deepen and widen our cooperation in the maritime domain, we have to use these, instead of inventing the wheel again.

Strategy-Driven Actions, Not Event-Driven Reactions. [This concept is] very important; the dynamics are very high. We shall take care to act strategically driven. So far we just react, event-driven.

Setting Russia Apart. There is an interesting point about Russia. Because of the importance of this question and variety of opinions, we sat apart and we saw the key points expressed.

Russia Is a Security Concern. This is definitely [true] because of the access and area denial capability exercised in the Black Sea. There is also good evidence that such a capability is in place and building up in the Middle East around the naval base of *Tartus*. So what is the point? The point is that definitely we have to respond, but not overreact. Our response should be credible but not provocative.

In short, definitely, we have a temptation to see what's going on with Russia, as a return back to the Cold War. But we shall not seek old answers to new questions. For this reason, this is the norm we have to follow. Of course, it has been an expressed opinion that Russia is entitled to enjoy the application of international law, to use the freedom of navigation. But there is one very important part of this. You can enjoy the right, but only if you respect it. So the obligation to observe international law is a must.

Russia, of course, is no longer a Cold War maritime super power. Still the resurgent Russian Navy in the eastern Mediterranean and Black Sea is something we have to pay attention to. Clearly, we have to say that annexation of Crimea is a violation of international law at the very high end.

Most Applicable and Proposed Action. This is to deter credibly, defend vigorously, and seek a dialogue, in order to find a solution to this situation.

I will express our group's gratitude to Admiral Richardson for the wonderful forum. Thank you very much for keeping the bar so high, so that we can enjoy this forum. Our thanks go to Rear Admiral Harley as well. It gives us emotional comfort being back. The

best years of our career were here in the Naval War College. Additionally, it gives sound proof that academics and naval science can contribute very much to maritime security.

Dean Thomas Mangold:

Thank you, Admiral.

Our next report will be on the Norwegian, North, and Baltic seas, by Rear Admiral Mordel from Poland.

NORWEGIAN SEA–NORTH SEA–BAL TIC SEA REGION

Rear Admiral Miroslaw Mordel, Poland:

Admiral Richardson, admirals, ladies and gentlemen, I have the pleasure to report the results of discussion in the breakout group for the Norwegian, North, and Baltic seas. We are talking about northern and eastern Europe, the small and shallow waters of the Baltic Sea, the more open but very busy North Sea, and the Norwegian Sea as a window to the Arctic and Atlantic.

As shown in the following graphic, taking part in the discussion were twelve countries' navies, six of them with access only to the Baltic Sea.

Threats and General Concerns. Compared to many other areas, we don't face any problems with piracy. We don't face any problems with human trafficking. So from this point of view, it would be a peaceful area.

Growing Russian Capabilities. However, we all agree that the growing Russian capabilities and activities have become a key challenge, especially with the potential





Participating Nations

- Belgium
- Denmark
- Estonia
- Finland
- Germany
- Iceland
- Latvia
- Lithuania
- Netherlands
- Norway
- Poland
- Sweden

List of nations participating in the Norwegian Sea–North Sea–Baltic Sea regional breakout group

for tactical miscalculations. There has been an increase in the number of Russian ships' naval activity and exercises, including snap exercises in the Baltic Sea.

When compared to the era of the Cold War, pre-1990, Russian actions are not overly aggressive. Only when compared to the past decade are we seeing a more aggressive posture. However, combined with modern media, there exists the threat of tactical miscalculations. The margin of error has dropped significantly. A small error in the cockpit or bridge could have a strong reaction from a government.

Public Perceptions of Militaries, Especially Navies. There is little public perception of navies, especially compared to armies and air forces, which operate in a more visible manner. Additionally, Russian actions in Crimea and Ukraine are land- and army-focused operations.

Internal European Divisions. For the last forty years, Europe has come together. However, there has been evidence of more European division recently. Brexit [British exit from the European Union] and immigration are examples.

The Problem of Funding Modern Navies. Some navies have recently seen an increase in funding. Most of the navies struggle with small budgets, especially compared to their respective armies and air forces. Poland and the Polish Navy are, unfortunately, good examples of such situations. Both politicians and the public need to be convinced to invest in building and sustaining modern naval forces.

Lessons Learned. [The following points highlight some of the key lessons learned.]

- Shaping perceptions of maritime security. We see a need to engage media, to shape public perceptions regarding the importance of maintaining maritime security. The public does not perceive the importance of maritime power. Navies and coast guards need to engage the people and the media to raise public awareness. Information sharing enables collaboration and cooperation.
- Exercises as a deterrent. Sustaining the growing regional military presence, [conducting] exercises, and demonstrating force work as deterrents. In the last three years, there has been an increase in NATO and U.S. presence in the region. BALTOPS is an example. For many years, this was a small state exercise. Now, the exercise has expanded, in both forces and complexity. This is viewed as a positive, especially in light of growing Russian activity.

- Shift in geopolitical identities. This requires new ways of thinking. Old rules and assumptions are no longer valid, as the boundaries have shifted east since the Cold War.

Actionable Items. [Actionable items include the following.]

NATO/Partnership for Peace Sets the Standard of Cooperation. We have over sixty years of experience cooperating with our NATO allies and regional partners. Poland was happy to join this cooperation in 1999. This provides an important base for future cooperation, and the level of cooperation within this region is pretty high. Of course, there is always space or place for improvement. That's why the [Baltic Commanders Conference](#)³ has been established, with many subgroups and working groups we've tasked to seek other areas of potential cooperation.

Interoperability Remains Challenge. The need for security often conflicts with efficient action among NATO and partner countries. Policy must change to better integrate all regional partners.

Science and Technology. There's a need to foster the development of science and technology with NATO and allied partners. This would include scientific exchanges and scientists working in multinational [efforts].

Thank you very much.

DISCUSSION

Question:

You expressed concern about the resurgence of the Russian Navy, and the possibility of mishaps due to errors on the bridge. Are there any steps being taken to obviate such a situation? Is there some sort of confidence building or dialogue with the Russians? If not, should something be initiated?

Response:

I know many countries have taken steps toward talking to the Russians, and have defined how to solve or avoid such problems. In the case of Poland, no, we haven't yet made any steps in this direction. However, we are currently considering talking to the Russians about it.

Dean Thomas Mangold:

Thank you, Admiral.

Our fifth presentation will be by Commander Gorman from Jamaica. She will brief the Caribbean Sea group.

CARIBBEAN SEA REGION

Commander Antonette Gorman, Jamaica:

Admiral Richardson, Rear Admiral Harley, distinguished delegates of International Seapower Symposium 2016, ladies and gentlemen, on behalf of the delegates from

3. For more on the Baltic Commanders Conference, see "Starkes Signal der Ostseepartner;" ("Strong signal from Baltic partners") Baltic Commanders Conference, 9 March 2016.



the Caribbean Sea, let me say thank you to the Chief of Naval Operations and the U.S. Navy for the kind invitation and the warm welcome to Newport.

The past few days have been professionally enlightening and personally fulfilling, as a returning resident of Newport. It has been a wonderful opportunity to refresh acquaintances from near and far, make new friends, and continue my quest to forge stronger and perhaps even smarter partnerships.

I have the privilege of reporting on the discussions of the heads of navies and coast guards from the Caribbean Sea. The participants are shown on the following graphic. You will notice that we have English-speaking, French-speaking, and Spanish-speaking members in this group.

Common Threats. As we discussed [common threats], we did not arrive at anything vastly different from what the wider group has been talking about this past week, or what we may have spoken about at [International Seapower Symposium 2014](#). The difference, in some instances, may be in the scale or frequency of one or other threats, but we all face similar threats. Most of the points addressed were also highlighted before. I will speak about some that may not have been mentioned by presenters in previous regions.

Piracy. In the Caribbean, we are seeing an increase in piracy, [though] not to the extent in other regions. More specifically, it is really at a small scale, almost like pilferage from yachts and so on in the tourism industry, but not specifically against large merchant ships.

More Shipping Traffic. In tourism, there is a large amount of shipping in our area. That we see as an area of concern, should it be targeted by one threat or another in our maritime space. There's also the widening of the Panama Canal that would see increased shipping passing through the Caribbean Sea. Plans in Nicaragua for

a canal will give us more shipping in the area. Participants of my region saw that as a concern.

Defense versus Resources. We speak about defense in depth in a vast maritime space, versus our resources. For the most part, the delegates from the Caribbean are mostly heads of coast guards. I believe Honduras has a navy and so does the Dominican Republic. But for the most part, the other delegates are from very small constructs. For example, my unit has just over 300 persons. We have a small amount of resources. Our maritime space is twenty-five times the size of our land space, to put it in perspective.

When we talk about defense in depth, in the Caribbean we have a lot of internal security issues in the islands. As the heads of coast guards and navies, we discussed our concern with that. Our political leadership does not see the importance or the connection of what is happening in the maritime space with what is happening in the islands of our respective countries.

Illicit Trafficking. I'm talking about the trafficking of all things illicit—humans, weapons (in particular, to support transnational criminal operations operating in and around our islands), and criminal gangs.

Weak Institutions and Corrupt Officials. Oftentimes, when we do law enforcement or our interdiction at sea, it is countered ashore by corrupt public officials or a poor, slow, or inefficient legislative process. So that also hampers the bad guys. They know this and they know the loopholes. Those errors are often exploited.

Natural Disasters. In the Caribbean, we're slap-bang in the middle of a hurricane area. That is always an ever-present threat for us.

Cyber Security. We are also vulnerable [in cybersecurity].

Barriers to Interoperability. I mentioned the list of participants in the region with different languages. That was highlighted as one of the barriers to interoperability and information sharing. At International Seapower Symposium 2014, we did highlight this issue. I can say, certainly, in my job, I've seen improvement in this area. More of our military constructs have set up information sharing—information



Participating Nations

- Antigua and Barbuda
- Bahamas
- Barbados
- Belize
- Colombia
- Dominican Republic
- Guyana
- Haiti
- Honduras
- Jamaica
- Nicaragua
- St. Vincent and the Grenadines
- United States

operation centers. We are working closely, in some cases among ourselves, to share information. There has been some improvement in that, but there is still room for improvement there.

Radicalization. We have radicalization in some locals in the Caribbean. As one speaker said, sailors look at the horizon while soldiers look down at a map. We looked at our horizon. We did see this as an issue that would come up in the Caribbean. It is now just off our port bow. In some islands in the Caribbean, we've seen some evidence of locals becoming more radicalized and even traveling to other regions to support terrorist organizations. That is a significant issue now. We had been looking at it, but it is more imminent. We are looking at how we will deal with that—the obvious gaps in our domain awareness and capabilities in our maritime space, and how they can exploit that.

Grave Instability in Neighboring Countries. I will speak particularly of Venezuela. Two years ago, the situation in Venezuela was slightly different. Today, we see the potential for mass migration. We see, as a result of the instability in Venezuela, increased piracy in the southern part of the Caribbean. That was also highlighted as a concern.

Actionable Items. How can we address some of these concerns?

Common Legal Frameworks and Agreements. We have these. They're actually things that have some construct in place, in some cases, but need to be deepened, expanded, worked on. In some cases, there are none. Those are things that we can do in the Caribbean region to improve or to mitigate some of the threats we've highlighted.

Strategic Communications. There was discussion about strategic communication to political leaders. That is definitely an avenue that, as maritime leaders in the Caribbean, we need to look at. How do we communicate with our political leaders, as they directly influence our modus operandi, capabilities, resources, and how we work with each other.

Leverage Information-Sharing Mechanisms. Although the Caribbean is a very small place, it is populated with many different islands. Everyone is closely guarding their sovereignty. That presents a lot of barriers to sharing and working together at the strategic level. We need to learn how to communicate to our leaders the importance and benefits of cooperation.

Trust and Cooperation. We see that we are doing that. In a lot of instances, training, cooperation, and exchanges are facilitated by external partners, primarily because of their good interests and good partnership with us, but also because as a region we don't have the resources to pull off large exercises among the different islands.

Bilateral Exercises and Agreements. For example, there is a plan for Colombia and Jamaica to do an exercise in the San Andreas area, as soon as we are able to do that. There are also things like [EXERCISE TRADEWINDS](#) and participation in UNITAS and Panama. These are things that we should continue to leverage to expand our ability to operate together and cooperate.

Institutionalized Regional Engagement. At the operatives level, we do speak to each other. We try to do things together. But in most cases, this is not institutionalized. We think that if we do that, it would make us better able to address our threats.

Finally, I would like to thank you again and wish all of you fair winds and following seas back to your respective countries.

Dean Thomas Mangold:

Thank you, ma'am.

Our next speaker will talk on the Gulf of Guinea. That's Rear Admiral Konaté from Côte d'Ivoire. The admiral is going to speak in French.

GULF OF GUINEA

Rear Admiral Djakaridja Konaté, Côte d'Ivoire:

I am not good with English, but I want to say something in English before I express myself in French. I am honored to represent my distinguished colleagues from the Gulf of Guinea region. On behalf of my colleagues of the Gulf of Guinea, I thank the U.S. Navy, particularly the Chief of Naval Operations, Admiral Richardson, for giving us this opportunity to attend this symposium. With your permission, I will deliver the results of our discussion in French.

It is a great honor to represent my distinguished colleagues from the Gulf of Guinea, as well as other colleagues. We had very interesting and productive discussions. I thank my colleagues for their candid and relevant remarks. I will do my best to summarize a few of the salient themes we discussed.

The participants were from the countries shown in the following graphic. Some of those countries do not abut the Gulf of Guinea, but they support us because the problems of the region affect them as well.

Vast Challenges. First and foremost, we all agreed that the Gulf of Guinea faces a number of challenges—very specific and complex challenges.

As mentioned in previous presentations, the Gulf of Guinea is considered one of the most dangerous maritime domains. There is maritime piracy, illicit trafficking, and IUU fishing—a number of big problems.

No Single Solution. Secondly, we came to the conclusion that no single solution can address all of these challenges. Indeed, maritime capabilities in the region are





Participating Nations

- Benin
- Cameroon
- Côte d'Ivoire
- Gabon
- Ghana
- Liberia
- Mauritania
- Namibia
- Nigeria
- Republic of Congo
- São Tomé and Príncipe
- Senegal
- Sierra Leone
- Togo
- United States

List of nations that participated in the Gulf of Guinea breakout group

quite uneven from one country to the next in the region overall. What is common, however, is that a number of efforts have been led. We need to continue to exert pressure on our politicians to act in order to strengthen security and enhance maritime security. It is incumbent upon each country to identify its own specific requirements.

Incremental Improvements and Opportunities. Thirdly, in spite of the numerous challenges facing the region, we have seen some interesting, incremental improvements, and they are crucial. From an operational standpoint, the experience of the MT *Maximus* made it possible for us to emphasize regional and extraregional cooperation. From a strategic standpoint, a number of conferences, exercises, and seminars continue to leverage a number of opportunities—opportunities that allow us to improve our regional integration little by little.

Heads of state and government of the Greater Gulf of Guinea have adopted a number of strategic documents, to wit, the African Integrated Maritime Strategy, or AIMS and the Yaoundé Code of Conduct, as well as other regional strategy documents in East and West Africa.

Operationalizing Strategy. Yet the main problem is in implementation of these strategies. We need to transform these strategies into operational concepts—indeed, operationalize these strategic frameworks. To do so will require creative and innovative solutions such as the pooling of resources. It is essential that we forge partnerships at all levels. The Gulf of Guinea's countries need to look for opportunities that will make it possible to leverage public–private partnerships.

Inclusive and Comprehensive. Lastly, the solutions that are adopted will need to be inclusive and comprehensive. We need to pursue mechanisms that are fully inclusive as well as integrated across all political boundaries. Once developed and set up, it will behoove us to monitor the implementation of those decisions and evaluate progress made.

This summarizes our discussions yesterday in the Gulf of Guinea session. Thank you.

Dean Thomas Mangold:

Thank you so much, Admiral.

Our final presentation is by Admiral Kamarulzaman from Malaysia. I'd add that the admiral is our fourth Naval War College graduate speaking this morning.

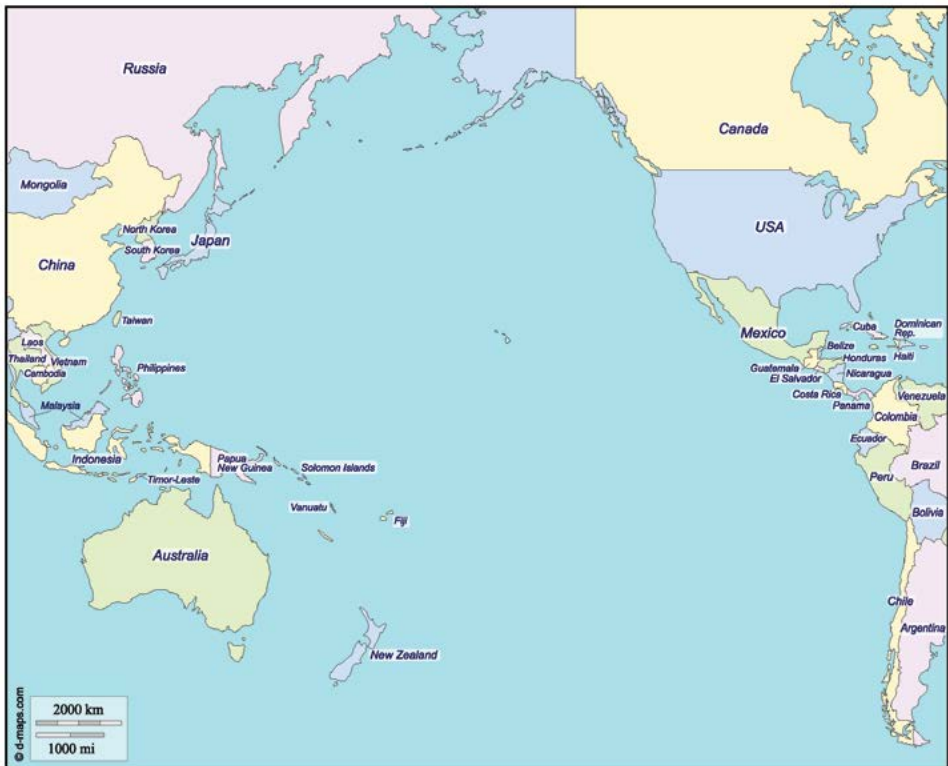
PACIFIC OCEAN

Admiral Ahmad Kamarulzaman, Malaysia:

Thank you very much. Firstly, I would like to take this opportunity to thank Admiral Richardson, Admiral Harley, and all the team for having us here at this fine institution. I've been very humbled and very honored to be back in the same hall. Twenty years ago, I was here as a Naval War College graduate in 1996. It's just fantastic to be back again.

I'm representing the Pacific group. I'd like to list the nations—the partners—in this Pacific group. The list represents countries [ranging] from an island state to one of the biggest nations in the world, a very small population to one of the most populous in the world, small nations that do not have any power to super powers.

Look at the list of twenty-two nations represented—there are at least thirteen different languages. You can imagine some of the cultural issues, the challenges that we're going to face whenever we look at things.



Lessons Learned. [Representatives of] all twenty-two nations all relate to the level and number of issues. All are worried about the survival of their nations, based on the increased sea level. That's all they worry about. They're not worried about nuclear war. They're not worried about competing claims. They just worry about their survival. Another partner worries about how much fishermen bring into harbor, and when fishermen start to complain to them.

Wide Range of Issues. This the point I would like to relate. Obviously, these relate to threats and also instabilities. I'm not going to go through all the issues because they've all been mentioned. What is important is that the level of concern is different; the level of interest is different. How much political will a nation state has on issues is different. You're looking at about half of the world. Malaysia is just across the world—thirty hours of flight time before I am back to Kuala Lumpur.

Legitimacy of the Government. The core issue is related to the legitimacy of the government. We talk about how much political will each government has when we talk about issues.

Trust Is the Foundation of International Cooperation. We've all been mentioning trust the last two and a half days. We talk about trust. We talk about interpersonal trust that relates to interpersonal relationships. Building this trust is very, very important. As you increase the level of trust, you increase the level of confidence in working together. As easy as it is to say "trust," it's very, very difficult to build trust. We have to understand that. And it's very easy to lose trust. That makes it more difficult.

Personal relationships can overcome bureaucratic obstacles. It is very key that we understand that. There are sometimes simple issues that we, among navies, understand. As long as we talk among ourselves in the front line, we get issues over with, just like that. But if we bring it to the next level of foreign affairs, or the foreign ministry, it gets into a different ball game altogether. This is why it is very important that [we understand that] personal relationships can overcome bureaucratic obstacles.

One of the key lessons I will be highlighting later on is, as maritime leaders, how courageous are we going back home and trying to influence the internal stakeholders in our countries? We can influence maybe other nations. We can change them. You can influence. But what we can do is influence people back home in our own organizations, in our own countries. Trust will build over time. That's very important. It needs to be sustained. More importantly, it needs to have momentum.

Again, this is fantastic, having all of us here to understand. It is a building relationship. It's very important. And developing trust involves accepting risks in making the first move. But why not? Someone will have to do it. We need to be courageous in actually making that first move. This way, you bring this trust.

Also, managing perception is key. It is very important. We must never assume what other people [think]. Even though you're perceived [one] way, you have to manage and mitigate that.

Similar Problems, Different Perspectives. There can be similar problems when you talk about issues—wide-ranging issues. What is different is the perspective of looking at these problems. I'm in a command that uses this tool, PESTELS (political, economical, social, technological, environmental, legal, security). We, especially naval commanders, sometimes tend only to look at the security perspective of things. Understanding other perspectives will help us to make better decisions. I think that's very important. This is where it is a very good, useful tool whenever we look at maritime security issues. When we look at this [PESTELS], they're all



- Cambodia
- Chile
- China
- Columbia
- El Salvador
- Fiji
- Guatemala
- Indonesia
- Japan
- Kiribati
- Malaysia
- Mexico
- New Zealand
- Peru
- Philippines
- Republic of Korea
- Singapore
- Timor-Leste
- Tonga
- United States of America
- Vanuatu
- Vietnam

List of nations that participated in the Pacific Ocean breakout group

actually interlinked. And very interestingly, a lot of it actually is going to be focused toward politics. This is the key issue that I'd like to stress.

Regional Agreements and Associations. There are a host of [regional associations] that are very, very good. We're talking about symposia like this, numerous conferences around the world. But how many is too many? For a small nation like Malaysia and also the colleagues in my group, we can't afford to have too many people in some of these conferences. We need to prioritize. Again, that relates to resource constraints. Also, what are we going to do in terms of actually getting involved? We must prioritize, because resources are very limited.

Navies, a Driving Force for Peace. [That navies can be a driving force for peace] is what we have captured during the discussion here. It is very important. The navy, instead of looking from the hard power [perspective], actually can use that soft-power approach to be a driving force for peace. We need to also balance sea safety and national policies.

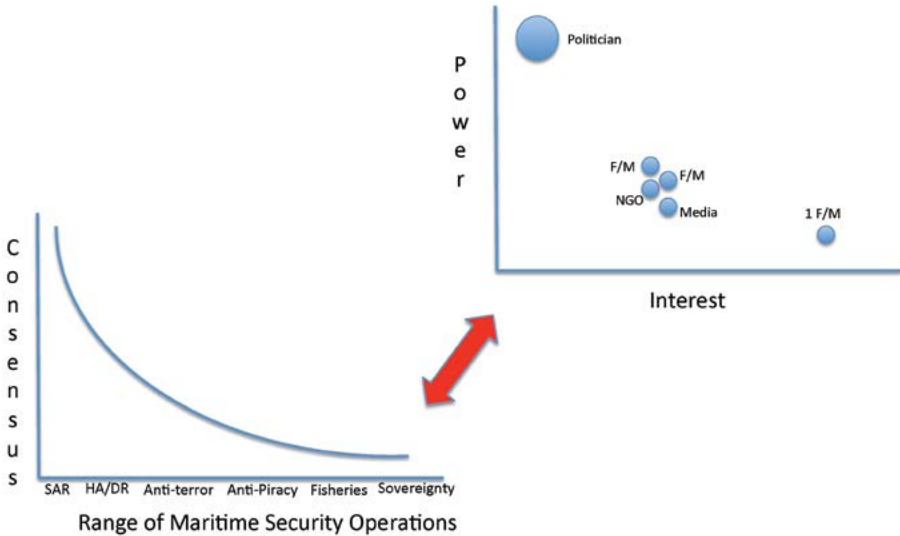
Multiple Stakeholders. This is the other huge challenge that we discussed. It makes it more challenging, more complex, and more sophisticated.

Stakeholder Analysis. When we talk about stakeholders, what I would like to offer you is this tool, shown in the following graphic. If you're able to actually map out all the stakeholders into a power and interest grid, you start to understand them.

For example, over here, this one fisherman (noted as "F/M" in upper right of the following graphic) is very interested in how much fish he gets every day. But, as one fisherman, he does not have any power. But if all these fishermen group together and become an association, and all the associations group together and use media, maybe the politician comes in and they put forward their case. Then that issue will be obviously taken in a different light. This is a very simple example.



Stakeholder Analysis



Stakeholders mapped into a “power and interest” grid

You can build this grid for a more complex situation. This case is just based on internal stakeholders. If you go to international relations, you can build it up for internal as well as external stakeholders. You can put nations here. Using this tool in analyzing stakeholders, you can double up. There’s actually a range of maritime security operations [that can be considered] in this manner.

Those that are easy can be put on the left side, where they can achieve a high consensus. The most difficult ones should be on the right-hand side. You can work this using the stakeholder analysis as you develop across time. You can develop a trend.

Trust Matrix. Having put this tool across, there’s another tool. The reason why we use this is, if something is tangible—something that you can feel, something that you can see, something that you can measure—it is much easier for us to actually decide on things. Therefore, we would like to offer this trust matrix [below]. This is very interesting to see.

[The colors are] supposed to [represent] traffic lights, but rather than using circles for traffic lights, we just used boxes of colors. You can put a host of issues down here [to discuss]. I put CUES there, because that was discussed earlier. What it means is just a color code: [Red] is basically a no go. Everybody does not agree or a country does not agree with it. [Yellow] means they are looking at it. [Green] means they’re happy with it.

The idea is to work hard, let it turn to gray and hopefully turn into checkered. If you look at that as a snapshot, a blip over time, you will probably see the number of reds will reduce and number of yellows reduce, and hopefully green will [increase] like that.



“Trust Matrix”

ISSUES	Country A	Country B	Country C	Country D	Country E
CUES	Red	Yellow	Yellow	Red	Green
DOC	Red	Red	Red	Red	Red
Piracy	Red	Green	Yellow	Yellow	Red
Trafficking	Yellow	Yellow	Red	Green	Red
Fisheries	Red	Green	Yellow	Yellow	Yellow
Climate change	Red	Red	Yellow	Yellow	Red

An example of the “trust matrix” championed by Admiral Kamaruzaman, who represented the Pacific Ocean breakout group.

So it gives confidence. It gives individual nations or stakeholders their own metrics that they can keep them for themselves. Then when they do a bilateral [proposal], they will compare their own two metrics with the bilateral. You [could] do a trilateral, maybe you could compare three. By having this, you are able to build more trust and confidence into any discussions.

Takeaways and Actionable Items to Deepen and Expand Cooperation.

Design Events to Build Personal and Professional Trust. We need to design more engagement activities, events, to build personal trust and professional trust. That is very important. It has to be considered across the chain of command. It is not just at higher levels. It goes down to the cadets, for example. Work on this, because I met some of you down here. We need to create these small wins for the trust metrics. Actually, you create the small wins and often small wins will create more big wins. This is a momentum that we need to achieve greater success.

- Consider the Stakeholders. You may need to include the stakeholders in and across agencies, or across nation states.
- What Gets Measured Gets Done: Adopt Tools Such as the Trust Matrix. Once gap measures get done—by having something that we all can look at and compare, even though there’s a color code—it is measurable. It will help [us] move on and achieve better levels of success.
- Manage Perception. This is key. It is a very important point. Again and again, when we look at issues, we have to actually look at perception and listen accurately to understand the real issues. In this regard, effective messaging is very important. It is how you use media, what you want to put across as a message in managing this perception.
- Develop International Norms and Standards. It is very important to actually manage the system through configuration control. We’re able to ensure that procedures are being updated, protocols are being updated, toward being more binding. We talked about starting with the soft law. Remember when we

did the trust matrix? Whenever it's green, you create basically soft law. Then as you move on, you can look into having that as an agreement.

- Address Problems through a Holistic Approach. PESTELS—political, looking at it from an economy point of view, social, technological, environmental, legal, and security.

Again, I would like to thank Admiral Richardson and everybody else for a fantastic time in Newport, Rhode Island. I'm sure all of you will have fond memories. I'm looking forward to the next International Seapower Symposium. Thank you all, and fair winds and following seas.

Dean Thomas Mangold:

Thank you, Admiral. That was a great presentation.

Closing Remarks

Admiral John M. Richardson, U.S. Navy

Chief of Naval Operations

Admiral John M. Richardson:

Ladies and gentlemen, fellow chiefs of navy, and fellow chiefs of coast guard, thank you again for making the time to join us in Newport for this very important week. You've all been very generous with your time and with your thanks for the support provided to you.

Thanks to the team. Because we've all run events of this type, you know that this only happens by virtue of the terrific contributions of a very capable team. I wanted to take a moment to allow you the opportunity to join me in thanking the team. Please bear with me for just a moment.

First and foremost, I think we've all realized that we've got a special place here at the War College, run by a very special staff and faculty. I'd ask you to join me in thanking Admiral Jeff Harley and his team, and certainly our able master of ceremonies, Dean Tom Mangold. Tom, thank you so much for leading us here.

Also, the person from my staff who has been the man with the radio, moving to and from events, keeping things on track, is Commander Chris Fallon. Chris has been the person coordinating the efforts of over 120 naval reserve personnel,



Admiral John M. Richardson, Chief of Naval Operations, delivers closing remarks.

thirty-six Naval War College faculty, thirty-five War College security personnel, over one hundred U.S. Coast Guard security personnel maintaining waterborne security, and then thirty-five men and women from my team that came up from Washington.

Thanks to all of you for what you've done to provide the venue, provide the support, the information technology support—everything needed to allow all of us to have the comprehensive conversations, conferences, and presentations that we had.

I'd also like to provide a quick thanks to a team that rarely gets thanks: it's to all of our translators in the back. They've been working very hard to keep us all connected. Have the translators step out here. It's a great looking group. They never get to show their faces. Team, thank you all very much.

Part of what defines this blue century is an increasingly blue economy.

—Admiral John M. Richardson,
U.S. Chief of Naval Operations

Before I go on, I just want to say that everybody who was in the room during Admiral Kamarulzaman's lecture gets three credits for their next War College course. That last lecture was worth academic credit. Thank you for that great lecture.

Certainly, I think we can all agree that being a chief of navy and a chief of coast guard is a unique position. Again, just as this symposium was supported by a terrific team, all of us individuals are supported by a terrific team. All of the staff, the executive assistants, aides-de-camp—it's been rewarding to see you supporting your principal. So, one last thanks to all the supporting staff who traveled with us. Those supporting staffs are so critical because the scope of our responsibilities is so vast. No one person could ever do it alone.

Rapid Change and Common Interests. One only has to consider how quickly things are changing in our world. The pace of change is more rapid than ever before. One only has to consider the situations of Admiral Srur from Argentina and Admiral Tin Augn San from Myanmar to see how quickly things can change, literally, in the course of a single-day election. You have a completely different trajectory on which your navy is proceeding. It's been wonderful to talk with each of those folks, and see the great opportunity on the horizon.

I think we all appreciate—and the regional symposia outbrief made it very clear—that our maritime environment is changing as rapidly as ever, is busier than ever, and is becoming more important than ever. That environment also unites us.

We have much more in common. We operate in that maritime environment. We're each responsible to our respective nations for keeping the seas and rivers safe, for keeping sea lines and lines of communication open for trade. We have common interests. We need to continue to use venues like this and other regional venues to strive to cooperate and find areas of commonality and ways that we can achieve our common mission.

Also, while we found tremendous areas of commonality—areas where we agree, have common interests—we also touched on those areas where there are differences of opinion and different viewpoints. It's just as important that we come together and speak very frankly about those areas, where we have those differences, and work toward a peaceful resolution of those differences.

Common Themes. Admiral Verma's discussion about the role that international law has played to resolve some longstanding issues, contentious issues, and to do so

in a peaceful manner was very compelling. As we resolve those, we can continue to work face-to-face to mitigate risk—the risk of miscalculation, the risk of some type of a mistake. We can, as I said, continue to work toward a peaceful resolution.

In all of those regards, this week has been completely gratifying for me as we've worked through the regional symposia, the keynote speeches, the leadership updates and the panel discussions. I take away a renewed appreciation of the work that we can do together to reinforce our areas of mutual understanding and to continue to work through our areas of differences.

Admiral Lanba of India introduced to us [the concept] that this is the “century of the seas.” I want to take a bit of a turn on that phrase and say that it's a blue century that faces us. That should get all of our attention.

Admiral Ferreira of Brazil also mentioned that part of what defines this blue century is an increasingly blue economy. Many of our nations already have our economies so closely tied to the sea, but that's going to be more so in the future.

The universal challenge we all share is keeping the maritime secure—it demands solutions. One common solution—and you saw it in all the regional outbriefs—was the idea of information sharing, the power of information sharing and its ability to level the playing field. How do we do this? Most of the time, when we talk about information sharing, we talk about it at a tactical level, sharing track information, contact information, a maritime domain picture, a maritime domain awareness. One thing that became clear to me is that there is also a need to share and reinforce information at the strategic level. After all, it's a blue century, not a blue year or a blue decade.

We need to think with the long game in mind. How do we build confidence among ourselves, at the strategic level, and transmit our support and advocacy for the importance of international laws and international rules?

I believe we can all leave this symposium reinvigorated and reinforced, and be more intentional about transmitting that message. After all, in the long run, in a blue century, the roles of international law at sea and international rules and norms of behavior will serve all of us, as each of our nations continues to grow and rides through the turbulence that we all face in this century.

I'm a submariner by trade. We operate independently and have this phrase, “no news is good news.” If you hear no news, things must be going well. You're executing your mission just fine. In this area of international rules and norms and the messaging of their importance, I would say that no news is not good news. We need to be active in filling this space. We need to be vocal about it. It's something that I think we can all share. It will be to the strategic benefit of not only all of our navies, all of our coast guards, but all of our nations.

One of the common themes of the regional outbriefs was that in many of those regions and in many of those theaters there is an increasing radicalization of many of our youth. That radicalization becomes much easier if we don't provide a counterexample, a countermesssage of the values that we embrace—the positive values that are so well-represented by the rules, norms, and behavior at sea, and the principles that underpin those rules.

I would encourage us all to use the media, and every opportunity that we have, to come together and transmit and be vocal about the importance of those norms and behavior.

We spoke a lot about the regional challenges, but also about methods for solutions. Admiral Ibas of Nigeria gave a terrific outline of the measures that have worked to solve the very tangled and complex challenges in the Gulf of Guinea. I think we all leave here with a renewed appreciation for the challenges that region still faces, but also appreciating the value of persistence in continuing to press for an approach.

Many of these challenges are complex. It's just going to take patience and persistence, working toward sharing information, sharing resources when that makes sense, and working through regional disputes, borderline disputes, disputes over exclusive economic zones, and so forth.

Admiral Barrett pointed out the importance of a persistent approach to continue to beat back problems and make progress. Consistency and stability will lead to better results.

After listening to Dr. Lewis's discussion on cyber, there was a lot of discussion in the hallway about how interesting that talk was—interesting and also a bit scary, a bit terrifying. He gave us a terrific look into this emerging area of cyber security, cyber operations . . . cyberwarfare.

About what Admiral Martin from New Zealand called a postmodern navy—we think about each of our navies and coast guards operating in domains that range from space to all the way to the seafloor and everything in between. It includes information on cyber domain. It ranges from deep water all the way to the littorals and into rivers. You can start to see what this postmodern navy might embrace.

The Next International Seapower Symposium. One thing that I think is a topic for our next get-together at International Seapower Symposium round twenty-three will be what do we want to say, as a group, about the maritime environments and the need to be sustainable—the need to be respectful to the environment?

Pollution and environmental concerns were mentioned in many of the regional outbriefs. That is something that we're going to look to put on the agenda next time. As we build capability, can we think about building warships from a sustainable perspective? Again, thinking in terms of a blue century, as we bring each of those systems to the end of its life, from cradle to grave, can we be thinking more sustainably?

I've hinted that I'm already starting to look forward to International Seapower Symposium XXIII. I've got a couple of ideas that I'd like to pitch, and we'll be in touch with you before you know it to start putting together the agenda.

The capabilities of our navies rely on the strength and initiative of our enlisted cadre. I might want to offer up a venue to bring in our senior enlisted advisers for the navy next time. We can ask them to put together an agenda. I'll bring my Master Chief Petty Officer of the Navy. We will invite all of your equivalent enlisted advisers. They can put together an agenda. We can have a session or two where we overlap and discuss the importance of that teamwork.

I think at International Seapower Symposium XXIII we're also going to have more opportunity for each of us to interact with the media. On the agenda we'll have more media—on terms that are comfortable to you (and you'll be able to define them), you'll be able to interact with the world media and media in your countries. This can live stream, easily, back to all the audiences that we have concluded

we need to be more influential with, to highlight the importance of what the blue century and this blue economy mean.

We've been saying throughout [this symposium] that we're looking forward to International Seapower Symposium XXIII. We truly do read the feedback. I'd encourage you to give us your straightforward, frank ideas. Many of you commented that the International Seapower Symposium seems to improve; each one gets better than the one before. That's directly related to the feedback that we get from you. I'd ask you to be very honest with us in that regard.

To Stronger Maritime Partners, Fair Winds and Following Seas. Finally, I want to thank each one of you for helping to shape the agenda. My overall goal was that we could come together to address the issues that were important to us. You identified them before we got here. Our agenda was built around your input, your priorities.

We came together to address those priorities, each of us. No matter what country we came from, no matter what the size of our maritime force, we each came here with an identity, with a sense of the responsibility that we carry for our nations. My great hope is that that identity was completely respected and highlighted during these last few days in Newport.

I want to thank you once again for your contributions—each speaker, each panel member, each person who got up to speak in any way, all the one-on-one, bilateral conversations that happened, and all of the discussions around coffee. Thank you all.

I'd like to close by saying to my partners, I daresay my smarter and therefore stronger maritime partners, I wish you all safe travels, fair winds and following seas. I look forward to seeing you at the next International Seapower Symposium.

Thank you very much.

APPENDIX A

Stronger Maritime Families

Moderated by Ms. Wendy Boler, United States
Remarks: Admiral John M. Richardson, United States
Chief of Naval Operations

Panel Members

Mrs. Dana Richardson, United States
Mrs. Mercedes Welch, United States
Ms. Sabrina dela Dingco, United States
Mrs. Kathryn Dennis, United States

Ms. Wendy Boler, United States:

I'd like to introduce Mrs. Richardson.

Mrs. Dana Richardson, United States:

I'm so happy that you stayed and that you're here for this part of the program. This is really the "meat and potatoes" of our program. I'd like to introduce my husband, the thirty-first U.S. Chief of Naval Operations. He's been my husband for thirty-four years, my boyfriend for forty, and he is the father of my five children. Here's my husband.



Spouses of delegates attending the Twenty-Second International Seapower Symposium gather for a photo on Colbert Plaza at the Naval War College in Newport, Rhode Island.

Admiral John M. Richardson, United States:

Thank you all. I hope that you're having a meaningful and fun agenda.

On our side, all of your spouses are involved in great conversations. After we had our first morning, things loosened up. Now we're really into the sporty part of the conference where we're exchanging views very frankly. We find that we have so much in common across the world because at the end of the day we're sailors. We find that the mere act of going to sea in ships brings us together and unites us in ways that can cut across cultures, across geography. So it's with great gratitude that I welcome all of you to the conference as well.

Dana and I were talking about your agenda. She put a lot of thought into this agenda for you. We hope that you enjoy the program this afternoon. It might be useful to give you a sense of how we in the U.S. Navy feel about the contributions and the family role. As Dana highlighted, we have a big family. We have five children. We've been together ever since we entered the Navy together. We've moved the family twenty-one times, all around the world. Getting up and moving all five kids—that's a great sacrifice.

As in many of your navies, our officers and sailors will get on their ships and deploy for months at a time—six months, seven months, up to ten months lately, with the wars in the Middle East. We know that while we get on board ships, fly aircraft, drive submarines for seven months at a time that there is a family back home that is also working through great challenges. By virtue of that separation, our spouses stand shoulder-to-shoulder in terms of the contribution that we all make to the prosperity and the security of our nation.

In our Navy, we invest heavily in making sure that we respect that sacrifice, that contribution, and do everything that we can to support our families who are part of our Navy team.

The agenda this afternoon is designed to bring some people in who offer these different support programs, to give you a sense of how this is executed. Much of it is done through tremendous volunteerism, which is something that we are so lucky to have. People are willing to volunteer their time and their resources and come together as a community and help each other—to help our families—as they work through these sacrifices of many moves, and lots of separation, as we all go to sea and do our business.

It's the same in the Coast Guard, in all our maritime services—the Marine Corps—very much the same in terms of how we do this. The thought—and this is all Dana's thinking, I can't take any credit for it—is that we provide just some opportunities for you to consider. There are many different cultures, many different places that take different views on this. We wanted to give you our view. If you see anything that you might want to take home and try out in your own navy, then it's a menu. It's a menu for you to appreciate, and maybe take an item or two from, and take back home.

That's really my message to you. I wanted to come before you, not only as Dana's husband, but also as Chief of Naval Operations, to tell you that we think of the sailors and the families as two parts of one team, all of which need a tremendous amount of support. We support our people in uniform, men and women, and we support our families that stay behind, and we support the execution of the mission.

I'd be happy to take any questions you have; otherwise, I'll get out of the way and let you get back to your program. Thank you very much for your time. I hope you enjoy your afternoon.

Ms. Wendy Boler, United States:

Our first briefer is Mrs. Mercedes Welch. She is the lead spouse instructor at the Naval Leadership and Ethics Center. She is a 1987 graduate of the United States Naval Academy and a twenty-five-year Navy spouse. She is married to Captain David Welch. They have a daughter and three sons. She has enjoyed the privilege of three command spouse experiences. Her passion is sharing life with other navy spouses—educating them, encouraging them to thrive in the place the navy places them.

COMMAND SPOUSE LEADERSHIP COURSE BRIEF

Mrs. Mercedes Welch, United States:

Thank you, Wendy. In 1995, a group of forward-thinking flag spouses were together at a conference. They got into a conversation about how ill-prepared they felt the first time their spouses took command of a naval unit. They looked around and realized that the United States Army had a class for command spouses, as did the United States Air Force and the United States Marine Corps—but not the Navy.

So they thought [they] should start something that could help educate spouses so they could feel confident going into this season of life. Two years later the course was fully funded and under way. I dare you to find a program sponsored by someone on active duty that's gone from inception to complete and total activity in two years. You can't do it. In America, these were visionaries. They had a vision for what a team could do for a command. In the end, it is all about battle efficiency and combat effectiveness, but it doesn't look like that from the family side of the team.

Command Support Team. This conference emphasizes teamwork and team building. We have come up with the term "command support team." That is used in the Navy to describe the union of the commanding officer's spouse, the executive officer's spouse, and the lead enlisted spouse. They work together in our Navy. They're seen as a value-added [component] within the command.

Let's talk a little bit of culture. In America, we deploy and go far away. We have people stationed in Japan, Germany, Spain, South America—everywhere. We are not home. The Navy frequently moves us long distances away from family. Navy spouses are amazingly resilient, and they come together to form a larger family in those seasons of life, and that's where this command support team comes in. [The spouses] bond together.

I have this fantastic book. This is the 1955 copy of *The Navy Wife*, originally printed in 1942. This is a fantastic example of the culture of America regarding Navy spouses and family. Here's a quote from it:

The navy's wife's problems are different from those of army and civilian wives, because her household follows the ship, if and when it is possible. Often she will find herself living alone and not liking it. The way the young navy wife meets these separations, the philosophy she brings to the situation, and her knowledge of the customs and traditions of the service, will go far in assuring her husband's success.

Obviously, this was written a long time ago, but it has fully impacted our families and our Navy today.

Spouse Leadership Courses. The mission of our [Command Spouse Leadership Course](#) is to promote a team-building approach to command by recognizing, inspiring, and educating commanding officers' spouses so they realize the positive impact they can have on the morale and success of the command.

Ten years after that first course was started, a second course was begun for the lead enlisted spouses of every command: The [Command Master Chief and the Chief of the Boat Spouse Leadership Course](#).

As I speak, the course is in session. We have thirty-two spouses in our classroom this afternoon. The mission of the second course is to help prepare prospective command master chiefs and chief of the boat spouses to be their best—to lead, inspire, and motivate others as an integral member of the command support team.

The Navy recognizes and funds spouse leadership because it acknowledges that in American culture the job of the commanding officer has unique stressors, unique life experiences. The spouse of a commanding officer is often seen as an extension of that command, and is often looked to in times of crisis for resources, leadership—to be a stable rock for support. That's an unspoken expectation. It's not a legal expectation. We are not required to be that, or to do that, but let me tell you how I realized this was a big deal.

My husband took command of the USS *Chung-Hoon* (DDG 93). The ship went to sea, as ships are wont to do. The spouses and I went out to dinner one night to get together—to get to know each other and have fun with each other. We were in Honolulu, Hawaii, and none of us were from Honolulu. So we were getting together to build that bigger family. And as we're sitting at the table, the waiter comes over and says, "Hello ladies. Are we having wine with dinner tonight?" At that point, six sets of eyes looked at me. "I don't know, Mom. Are we having wine with dinner tonight?"

I had no clue that what I thought or how I acted would be looked at so closely, would influence so many others and the way they lived their lives. That impacted me. The spouse's participation within the command is not required. But as we tell our spouses in the classroom, if not you, then who?

Find someone who's going to take that lead role and be there in times of crisis. We find that times of crisis [are] handled in a more skilled and less traumatic way when you have a lead spouse. It is a value-added [part] to the command.

Our course inspires spouses to be themselves. I end every class session with "You do you." No two of us are alike. Everyone has their own personality that they bring to the table. We inspire them to provide opportunity for personal vision development. We have them think about "Why am I doing that?" and "What does it matter?" That inspires them to move forward in whatever activity they choose to participate.

We work on what we call a command tour charter. This is a list of things for the couple to talk about together. We know unspoken expectations destroy relationships. We want these expectations to be in the open, so they can be spoken about. We want our spouses happily married at the end of the tour to the same person that they are [married to] at the beginning of the tour.

We're not marriage counselors, but we do like to make sure that the relationship is strong throughout the tour. It is a unique experience for them: mutual understanding; responsibilities; activities with the children, with the command, with life, with other families. They make that experience a more joyful one, and avoid one that's filled with disagreements.

The Courses' Contents and Conduct. I'm the lead spouse instructor. I'm a full-time government employee, by virtue of my husband's command experience and my willingness to be in front of a classroom. I have three part-time instructors who are all post-command or post-command master chief's spouses. They have experienced that and are willing to come in the classroom and share. For each class we bring in three mentors—one command master chief spouse and two post-command spouses—to share what's happening right now in the fleet and what's going on.

We also have a steering committee for each course that looks at what we're teaching and says that's still relevant for what's going on in the fleet. The course educates spouses on topics. It is not an etiquette and protocol course. In fact, we have no modules on etiquette or protocol—none. We educate the spouses on topics ranging from personality styles to crisis management. As I speak, the chaplain and one instructor, Mel, are doing a crisis-management brief. They're talking about casualty assistance, Red Cross, public affairs officers, where you go when things go horribly wrong, and how can you be a conduit for resources.

We don't want them to solve everyone's problems. That is not the point. We want them to be able to empower other families to solve their own problems. We also tell them about resources available to every Navy family, and let them realize that their own family is also [eligible] for that. The course is built on four levels of relationship and communication. We talk about self: why you do what you do. We talk about you and your spouse and what we are going to do together. We talk about you in the Navy, the resources available to you, what an ombudsman does, and that conduit between the commands and the families. We talk about a family readiness group and how you can get information to all the families—particularly in times of crisis, or when the ship, aircraft squadron, or submarine is deployed.

We talk about the Navy chaplains and the resources available to them—and that last level of communication and relationship is new—and the Navy as a whole. We bring in every warfare specialty, all of our reservists, and all the shore and staff communities together. They take the classes sitting next to each other, to break down those tribal lines: "Well, I fly planes," "Well, I drive ships," "Well, I ride a submarine." We break those down, so that they see everyone has the same issues in life, and we all have many resources available.

Other topics we talk about are social media, values, and ethics. We do a great group dynamics module, Navy organization from the big-picture view, [to show you] this is what your spouse is dealing with. So, when your spouse comes home from work and talks about the "wamodine" and "framowitz"—those are made up words—and what's going on in his or her unit, then you can say, "Oh, I've heard of that." You're actually a better support to your spouse, because you have some idea of what's going on with that.

We talk about Navy heritage, customs, navigating personal and operational stress, conflict resolution.

Other Organizations and Resources. It is a fantastic legacy to be a part of, and I'm very proud to be a part of this course. This legacy has continued. It didn't just stop there with that course. There are so many organizations out there that have come and grown, and done all kinds of things for our families—both married families and our single sailors, who are part of the navy family as a whole.

We have [Dogs on Deployment](#), which was started by a military spouse. It takes the pets of single sailors as they deploy and makes sure they are cared for during the deployment. When the sailors come home, their pets are alive and well and ready to play again.

We have fantastic new resources. There's a new group called [PCS Concierge](#). Spouses in multiple locations have agreed to check out houses for you because they just moved there. They ask that when you go there that you will be willing to help out with that, too. They will take pictures and talk to realtors for you.

We're trying to spread the love. So wherever you go, you know somebody is there for you and resources are available. There's amazing financial advice. There's even a spouse who has taken all fifty of our American states' driver's license laws and put them in one document, with links to each state's official government website with the rules. That's a big deal for American spouses: "Do I have to change what I drive and how?"

That, in a nutshell, is what we do and teach. We do this to enable our sailors to go to sea and do their jobs without having to think about whether their spouses and their families are being cared for. By the way, the course is voluntary and fully funded by the government. We don't pay for childcare, but we do pay for transportation, food, and lodging during the week that the spouses are there with their active-duty member.

DISCUSSION

Question:

How long is the course?

Response:

The course is one week long, and it is from 7:30 in the morning until 4:30 in the afternoon. It is now delivered via iPad. The course content and course material are on an iPad. We renew this every course. It has a separate password for each course. The material is able to be updated as things change in the Navy.

Question:

For those of us who were in that very first class—has it changed?

Response:

It has changed drastically. The first time that I went through in 2005 the course looked nothing like this course. The actual modules are not available, but the lead spouse instructor might be able to send you some things, some information on that.

An active-duty member whose spouse cannot attend the course is given a CD [containing] the course materials and resources. We are moving to a command website where that material will be available for all later next year.

Question:

For our visiting friends, how can they get this resource?

Response:

We are part of the Naval War College. You can connect with the Naval War College. On their website is a link to our website. You can connect and contact us that way. We will hook you up with the resources and the information to get a program going. We'd be willing to work with that. Here is the link: [https://www.usnwc.edu/Departments—Colleges/Command-Leadership-School-\(1\)/CO-Spouse-Course-\(1\).aspx](https://www.usnwc.edu/Departments—Colleges/Command-Leadership-School-(1)/CO-Spouse-Course-(1).aspx)

Question:

Is the course common for officers' and sailors' wives?

Response:

Ninety percent of our modules are done jointly. We have modules that we separate out, like Navy Heritage Customs and Traditions, because the enlisted side talks about the chiefs and chiefs pinning on chief petty officer. The officer's side talks about changes of command. That's about it. Everything else is together, so that we learn how to become a team, as the command support team.

Question:

What about the Navy and the commanders? How do you support them?

Response:

We support the Navy and the commanders by ensuring that a support system is in place for families when their serving spouses go to sea, no matter how long it is for, when they go away from their command—to make sure people know what resources are available should they need them and providing networks of connectivity so that spouses can find each other for support and assistance.

Question:

What is the role that the spouse plays? What about the unit heads' spouses? What are their relationships with this?

Response:

The relationship is whatever they want it to be. They can be as involved as they want—setting up meetings, having people to their home, things like that—or they may not be involved at all. It is up to them. It is completely a volunteer role.

Ms. Wendy Boler, United States:

Our second briefer is Sabrina dela Dingco. She comes from a military family and was raised overseas. In Japan, she was a family life educator for three years, specializing in anger management and suicide awareness and prevention. She arrived in Newport as an Exceptional Family Member program liaison and now is a trainer/instructor.

FLEET FAMILY READINESS BRIEF

Ms. Sabrina dela Dingco, United States:

Thank you so much for the introduction, Ms. Wendy. My name is Sabrina. I do come from the Seventh Fleet. I am here to teach you what my program has to offer.

The Fleet and Family Support Center. The Fleet and Family Support Center was founded by the Navy because it heartily believes that this whole mission is not just about the war fighter. We 100 percent believe that the family must be supported. In short, if the war fighter is to go out and do the mission, he must have the reassurance that his family, his children, are being taken care of. I hope this makes sense.

I will bring information that we have to offer. I hope that you will learn something new from it and take it back home, if it applies to your culture.

Throughout the world, we have eleven specific regions that our U.S. Navy covers—sixty-nine installations, seventy-eight fleet and family support sites serving almost 323,000 active-duty sailors, with 394,000 family members [shown in the following graphic].

Why does it look like this? The reason is we support families who want to go out with their service members so that they feel supported and safe, no matter where it is that they go.



The Fleet and Family Support Program benefits service members' families around the world.

WHY THE UNITED STATES NAVY NEEDS THIS PROGRAM.

Deployments and Separations. We believe that with all the deployments and separations in the Navy, we need to educate our families on how deployments work, and why separations take place.

Frequent Moves. The moves that our service members make range from anywhere between ten months to three years, constantly rotating, moving anywhere around the world where our support is needed.

Financial Stress on Both Service Members and Families. Unfortunately all of these moves do take a toll. We want to educate our sailors on how to budget correctly, so that they can focus on the mission.

Young and Diverse Demographic. A lot of our sailors are fresh out of high school. They're seventeen, eighteen, nineteen years old. They are not aware of how to transition into the military lifestyle. We make sure that their needs are supported.

Spouse and Family Employment Challenges. Because the United States Navy supports its families following the service members around the world, lots of our American wives leave their careers in the United States. Once, in America, they were lawyers, doctors, teachers, and caregivers, but because the service members move to Bahrain, Italy, Germany, Japan, Korea, they leave these amazing jobs that they have. At fleet and family support centers, our job is to make sure that when they do get to that next foreign duty station, that if they want to work once again, we will help them with the skill set that they have.

Unfamiliar Locations. A lot of our service members haven't been outside the state that they were born. We're sending them to Souda Bay in Greece, Sigonella in Sicily, Portsmouth in the United Kingdom. They've never been to these places before. We help break the ice for them so that they can transition well into the country that is accepting them. We want to make sure that our sailors are great ambassadors of the United States.

Transition to Civilian Job Market. After a sailor has done his tour with us—maybe for four, twenty, or thirty years—we want to thank them for their service to our nation by making sure that all of the skill sets they have accrued in the military become transferable to civilian life. So when they write their résumés and apply for a job in the civilian sector, they become more marketable and get jobs outside of the military.

Personal and Professional Issues Requiring Fleet and Family Support. Sometimes inside a command, people get conflicted, stressed. They have anger-management issues sometimes, in their relationships or at home. They have those issues. I make sure that we address those problems, so that they're able to do the mission correctly, and make sure that they do not bring the stressors of work into family life.

Family Support Programs. These are broken into five specific categories: work and family life; Navy gold star; counseling, advocacy, and prevention; sexual assault prevention and response; and emergency response.

Deployment Readiness. The unique thing about the United States Navy is we believe that this does not only impact the mission and the sailors. We believe that even children get affected by the separation that happens with the service member. The service member could be gone from three months to ten months to three years. We

Family Support Programs

WORK & FAMILY LIFE

- ◊ Deployment Support
- ◊ Ombudsman Support
- ◊ Relocation Assistance
- ◊ Transition Assistance
- ◊ Family Employment Readiness
- ◊ Personnel Financial Management

NAVY GOLD STAR

- ◊ Survivor Support and Assistance
- ◊ Information and Referral Services
- ◊ Resiliency support



COUNSELING, ADVOCACY & PREVENTION

- ◊ Clinical Counseling Services
- ◊ Deployed Resiliency Support
- ◊ Family Advocacy Program
- ◊ Exceptional Family Member Program
- ◊ New Parent Support Program
- ◊ Domestic Violence and Abuse

SEXUAL ASSAULT PREVENTION & RESPONSE

- ◊ Prevention Education
- ◊ Response Coordination
- ◊ Sexual Assault Victim Advocacy
- ◊ Deployed Resiliency Support

EMERGENCY RESPONSE

- ◊ Navy Family Accountability and Assessment System (NFAAS)
- ◊ Disaster Response
- ◊ Emergency Preparedness

The Fleet and Family Support Program provides unified, customer-focused, consistent, and efficient programs and services to support sustained mission and Navy readiness.

want to make sure that children and spouses left behind understand what's going on, and what their roles are to make sure that this mission is 100 percent a success.

Relocation Assistance. The Navy is in all of these regions around the world. We want to make sure that our sailors feel welcome as soon as they reach the new country that they'll be stationed at. That is what our relocation project does.

. Here is an amazing concept that belongs to the United States Navy. We have a spouse coming from the command. She volunteered. She is not paid. She is the conduit between the command and the families. She makes sure that everything that happens in the command is transmitted correctly to the families.

Once that command is deployed or at sea she provides information from the families to the command, and back and forth, making sure that it is seamless and smooth. The command knows that their families are doing okay. The family knows that the command is doing whatever it is that they're doing out there, and knows when they will come back home.

This is an amazing part of the United States Navy. We are proud, because these ombudsmen, these spouses that are left back home, do a volunteer job 100 percent out of the goodness of their hearts.

Transition Assistance. This was that topic that I spoke to you about. After you have served in the United States Navy for four years, six years, or however long that you serve, we want to make sure that we thank you by putting all of your military skill sets onto paper so that you will be able to get a job when you leave the Navy.

Family Employment Readiness. As I stated in the beginning of my brief, we make sure that if a spouse leaves her job in the United States, as a lawyer, teacher, or what have you, that when she moves to a foreign country she is taken care of, whether

she wants to be a volunteer, go into an internship at a university and do research, or get another job.

We help them with job-search strategies and how to write their résumés correctly, so that they have the confidence to do interviews that will get them the job that they want, in whatever country they may be stationed.

Personal Financial Management. We help our sailors with financial planning, credit and debt management, military retirement plans—even with how to buy a house and how to buy a car. Most sailors come in single and then start a family. We want to make sure that they will be able to focus on the career and have less stress by teaching them how to manage their money correctly.

Counseling, Advocacy, and Prevention. This is a key cornerstone in what my program offers. We foster resiliency in sailors and families. Our culture believes that if you are having an issue, the healthy way to deal with it is to talk about it. We do not bottle it up. If we do, we believe that we will not be able to effectively take care of the mission.

We support our sailors receiving counseling if they are stressed about anything. The same thing goes with their families. We do home visitation for at-risk, expectant, and new parents; child and domestic abuse prevention education; case management and intervention; domestic abuse and victim advocacy; and critical incident response. We also take care of individual counseling and couples counseling.

Family Advocacy Program. Our services include training military personnel in recognizing and reporting domestic abuse. Aside from the fact that we make sure that domestic and child abuse do not occur in our Navy, we actively go to commands and teach our sailors from the highest to the lowest ranks that it is their responsibility to make sure that child abuse and domestic violence does not take place in our



Family Employment Readiness

- **Services include:**
 - **No cost consultations provided by FFSC employment experts**
 - **One-on-One Counseling and Educational Workshops on a range of subjects including:**



- Career Exploration
- Collateral/Outreach
- Dress for Success
- Keys to Job Fair Success
- Federal Employment Success
- Military Spouse Employment Partnership (MSEP)
- Volunteerism
- Goal Setting
- Job Search Strategies
- Portable Career
- Resume Writing
- Self Employment

Programs and services to increase service member retention, family support and career support planning.

Numerous resources are provided to help the spouses of active-duty personnel find meaningful employment.

Navy. We have no room for it. We do not tolerate it. We make sure that they're aware that they need to report whatever [instances] of domestic violence or child abuse they see, even if it is alleged. We take this very seriously.

Prevention Activities. We conduct anger- and stress-prevention activities as well as parenting-skills training. We understand that sometimes these incidents of domestic violence and child abuse happen because of stressors in the workplace. Because of that, we've come up with parenting classes for our sailors and the spouses.

New Parent Support Program. In joining the Navy and then moving to a foreign country, you leave behind your parents, high school friends, neighbors, people you know. So the Navy thought, what if the sailor and spouse move and she is pregnant—she cannot call home, Skype, or FaceTime because there's a sixteen-hour time difference. We came up with the New Parent Support program. If a spouse is expecting, and the service member has to deploy to Afghanistan or to Iraq, we make sure that she is taught how to be a mother, how to parent. We teach her the difference between infant formula and breastfeeding, how to choose the right car seat for the baby, and how to change a baby's diaper—those basic things. We understand that sometimes you leave your parents behind in the United States. Who is going to teach you to do these basic things if you are a first-time parent? We take care of even the smallest detail to make sure that the sailor feels reassured that his house is being taken care of.

Deployment Resiliency Counselors. We provide nonmedical, clinical counseling and resiliency training whenever our sailors go to deploy. One of our staff members will go with them to make sure that they feel supported. Again, regarding stress, we



Family Advocacy Program



Family advocacy includes prevention, identification, reporting, evaluation, intervention, and follow-up of allegations of child abuse / neglect and domestic abuse involving active-duty personnel, their intimate partners, and family members.

make sure that they have somebody there to speak with and help them regulate the stress levels of being under way with the mission.

Exceptional Family Member Program. I ran this program in Naval Station Newport from March until September. This is a very important program. We understand that some service members' families go through very specific problems, maybe stage 4 cancer, maybe cerebral palsy. Maybe a child has autism. One of the children that I had to deal with was four years old and had a brain tumor.

These are specific medical behavioral and academic needs that need to be addressed. After a family has been categorized for a specific degree of assistance, we make sure the service member will stay within continental United States and will physically be there to support the family member who is in need.

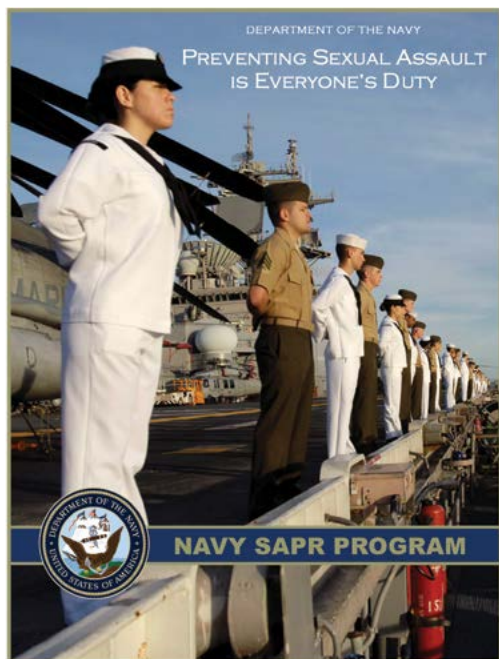
This is an incredible help for a sailor so that he doesn't wonder how he can do his job if he's worried about his wife who had a stillbirth or a miscarriage or his son that has lung cancer. We make sure that the service member will be there. We make sure that they feel supported in a time of great need.

Sexual Assault Prevention and Response (SAPR). We provide a standardized, Navy-wide, victim support system to promote a command climate that encourages reporting, prevention, and offender accountability. Our Navy has no room for sexual harassment in any way, shape, or form. We create a climate of prevention through victim safety. We promote bystander intervention. If you see something, say something. We do restricted and unrestricted reporting, which helps all survivors of sexual assault stand up and get the help that they need.

Emergency Response. These services include case management for the Navy and Family Accountability and Assessment System. Oftentimes, disaster strikes when we

least expect it. This can range from maybe a terrorist act to an act of nature, such as a landslide or a major typhoon. In 2011 in Japan, when I was stationed there, the great earthquake happened on the main island of Japan. When that happened, Navy families were dispersed throughout the world to safe harbors. Thanks to this program, we were able to make sure that all families were taken care of. We knew exactly where they were taken. This is a very integral part—making sure that families are okay, no matter where it is that they go.

Navy Gold Star Program. This is an assistance program designed for families of a service member who dies during active duty. We make sure that the family left behind gets taken care of. This program began in 2014, so it is still relatively new. It provides a level of long-term assistance and support that was not previously available.



SAPR strives to create a command climate of sexual-assault prevention, where victims are comfortable reporting, bystanders intervene to effectively prevent sexual assaults, and offenders are held accountable.

We have eighteen dedicated coordinators. They provide support for the family for as long as they need.

This is the end of my presentation. I hope that you are able to get something new or different that you can apply to your navies when you go back to your respective countries.

DISCUSSION

Question:

I have a question about the last program—the Gold Star. How long are you supporting the families?

Response:

The slide says they're there for as long as they want it. A lot of families don't want that support, and we understand and respect that. That is 100 percent voluntary.

Question:

That is emotional support, right?

Response A:

Yes, it's also emotional. It's emotional support and resources, where they might possibly need it. Some might want it for an extended period of time, others might want it just for a month or so. It all depends on the family.

Comment:

In my country, we don't have a program like this, that really supports our members. I think we're really lagging behind. When we return to our country, I would like to make use of the information that you have provided us. Thank you very much. I was very happy to hear your presentation. It was useful information.

Response B:

Thank you so much for being part of this. I hope that you got something from it.

Question:

We would like to establish an association of the same sort in my country. How could we? Could we have a link with the United States and your program so that we could go forward in our country with such a program?

Response:

She was asking if there is a way that her country could possibly speak with my departments, and if they could replicate the services that we currently have at Fleet and Family Support Center. I would like to get with you after this presentation, ma'am. I can give you my business card so you can contact me. I will speak directly with my supervisor. We can probably speak with our captain about it and see what I can do, because we are definitely here to support and help you as well.

Question:

In this family support, after the loss of the spouse—the financial aspect, the family pension and the money that they get—if they need any assistance investing the money, is that assistance also given?

Response A:

Thank you so much for your question. That is a very important one.

My department does not give the pension to the family of the survivor. If they do come to us for financial assistance on how to manage that pension, we have done that before. For example, a widow that we take care of—we give her suggestions on how to handle the pension that's coming in, assisting with maybe investments, or maybe with a child's college fund.

We give them that assistance for however long they want. We understand that with the grief that's ongoing, sometimes they feel helpless. Sometimes they're not exactly sure what to do with the pension that is given to them. We make sure that if they do want that assistance, that we help them throughout the whole process.

Response B:

Also, we have casualty assistance calls officers who come to the homes and explain the financial part.

Response C:

We make sure they're educated in all of the things that are going to take place.

Ms. Wendy Boler, United States:

Our last briefer will be Mrs. Kathryn Dennis. She is the Director of the Navy–Marine Corps Relief Society in Newport. She and her family just returned from five years in Japan, where she was the Director of the Navy Relief Sasebo office for five years. Her husband, a surface warfare officer, completed his command tour aboard the USS *Chief* (MCM 14).

NAVY–MARINE CORPS RELIEF SOCIETY BRIEF

Mrs. Kathryn Dennis, United States:

Thank you so much for having me.

I'm from the [Navy–Marine Corps Relief Society](#). I did have the pleasure of working for the Society in Japan, where we were for five years. We just moved to Newport about two months ago. I'll tell you a little about how I got into working with the Society. It was completely by accident. I'm sure many people in the audience have a very similar story.

We got married and moved to Japan, leaving my job of twelve years in marketing and hospitality. I wake up one day and think to myself, "What have I done? I don't have a job. I don't understand anything anybody is saying in Japanese, or on the Navy base because it's all acronyms. I need to find something to do."

So Fleet and Family Support Center told me that the Navy–Marine Corps Relief Society (Navy Relief, for short) has volunteer opportunities. I had never volunteered

before, had no experience with a nonprofit organization. So I went there. I had no idea what they did, no idea what the mission was, their daily work schedule, anything like that. It turned out to be the best mistake I've ever made.

Mission and Vision. Plainly speaking, we are a nonprofit organization. That means everything that we provide—services, loans, programs—is all from donations. That's how we keep our programs going. We are completely independently run. We are not run by the Navy. The Society is designated a Department of Defense nonfederal entity. That does make us very special. It's one of the many reasons we're very special.

We exist on Navy and Marine Corps bases everywhere around the world because our leadership thinks it's important that we're there. We do not pay for spaces. We don't pay for our offices, desks, computers, printers. We don't pay for any of that, and that's the reason that we can continue. We have been doing what we're doing since 1904. So we're doing something right.

We provide interest-free loans for service members, their family members, reservists, retirees, widows, surviving children, and survivors.

The vision—and it will never change—is that we always hope to give every tool possible to our active-duty personnel, their families, and retirees to assist them with financial emergencies and to help them become self-sufficient and have long-term resolutions for any issue.

Everything that we do is confidential. I always say that we're kind of like the chaplains in the Navy. Everything that is said in the office stays in the office. Of course when anyone is affecting the security and safety of our children and spouses, the active-duty member, retiree—whoever it is—then obviously we get other people involved. Other than that, everything is confidential.

Guiding Principles. Our foundation is definitely the most important part of what we do. It's how we work with our clients. It's how we recruit our volunteers. It's how we keep our volunteers. It's how we've been in business since 1904. One of the reasons I fell in love with Navy Relief so quickly is because of the people and organizations. Companies set out guiding principles like this, but very seldom do they actually live up to it every day in everything that they do. I knew it was different when I was in Japan, e-mailing at noon, which is very early in the morning at our headquarters in Virginia. I would have a response in five minutes. It's still that way.

NMCRS Guiding Principles

- * We provide effective client service in a consistent, compassionate, and non-judgmental manner
- * We are committed to preserving the dignity, self-respect, and confidentiality of our clients
- * We are responsible stewards of the funds entrusted to us by our donors
- * We provide our volunteers and employees with the training and resources to be effective – offering consistent services throughout the Society
- * We recognize the vital role our volunteer force plays in the delivery of Society programs and services



NAVY-MARINE CORPS
RELIEF SOCIETY

MAKING A DIFFERENCE FOR SAILORS, MARINES AND THEIR FAMILIES

www.nmcrs.org

The main goal of the Navy-Marine Corps Relief Society is to provide active-duty personnel and their families the necessary resources to become financially self-sufficient.

Every day, no matter where you are, our headquarters is there to support. Offices are there to support our satellite offices. Our guiding principles are extremely important to us. We take them very seriously. We always say clients and volunteers alike will always remember how you made them feel. It's how we keep our staff of volunteers. It's how we keep our clients and build relationships with our clients.

If we hand an assistance check to a service member, retiree, or a widow and we made them feel bad for coming in for that help, we've ruined the relationship. That's one of the most important things that we do (how we make people feel). It's one of the things we train volunteers to do. It's also what our volunteers love most about being with the organization, I think.

Financial Assistance. In 2015, we provided almost \$46 million in loans. This is obviously a huge endeavor. We have about 260 or so employees and 4,000 volunteers. We cannot do this without volunteers. Has anyone been to our thrift shop yet? We have seventeen volunteers in the thrift shop. They do everything. They work so hard sorting six days a week, putting everything out, maintaining that building, and making sure that everything is there for our community to benefit.

These are the general categories, in terms of the loans that we do assist with the most. So what does that mean? To be a little bit more specific, the financial assistance is in these categories [shown in the following graphic].

Parents to Bedside. This is one example. It's very hard to have a family overseas, even when things go right. You're very far from relatives and friends. We always have situations where a service member is deployed for three years, six months. A spouse becomes ill, maybe needs surgery, and that spouse needs to be admitted to the hospital. Maybe they have

NMCRS Assistance, 2015

WHAT WE DO

In 2015, the Society provided **\$45,800,000** in interest-free loans and grants to **57,833** Sailors and Marines.

When in need, the Society is there—from helping put food on the table to helping a service man or woman travel to the bedside of a sick or dying loved one.

In 2015, we provided:

Basic living expenses	\$19,074,436
Transportation	\$10,161,338
Family emergency	\$4,138,089
Car repairs	\$3,509,726
Transportation due to family illness	\$3,004,544
Other (pay entitlement shortfalls, predatory loan avoidance)	\$1,822,407
Household set-up	\$1,626,106
Funeral expenses	\$1,225,639
Medical/Dental (non-military medical facilities)	\$807,090
Education	\$399,395



NAVY-MARINE CORPS
RELIEF SOCIETY

MAKING A DIFFERENCE FOR SAILORS, MARINES AND THEIR FAMILIES

www.nmcrrs.org

A summary of the financial assistance provided by the Navy-Marine Corps Relief Society in 2015

three children. How are those children going to be cared for with a deployed husband or wife, and that spouse in the hospital for maybe a week, even more?

We actually have a form of assistance called “Parents to Bedside.” We can assist with a loan to bring that spouse’s parents to Japan, or wherever they are, to help take care of the children while that spouse is in the hospital and recovers at home.

It happens all the time. It’s an emergency. Sometimes the spouse or the service member isn’t even the one requesting assistance. Maybe it’s the ombudsman coming in on behalf of the spouse because they can’t get to the office. That’s an example. There are very straightforward types of assistance, like car repairs. If you blow a tire on the way to work, you need new tires, probably four. We can assist with car repairs, cracked windshields, tires.

Assistance with Pay Issues. This is a big one as well. This is very near and dear to spouses and family members because it happens when the service member is deployed. It happens when there is a permanent change of station, when you’re in limbo. Say the service member is on tour as a geographic bachelor, which means the service member is deployed and the family stays at home. That pay—the housing allowance—is supposed to stay the same, but most of the time it doesn’t. So we can help with bridge loans, so that the family can pay the mortgage, rent, groceries—whatever it may be. We can help with things like that.

Aiding Families in Disaster Areas. Another example is one in which we got the command involved. In April 2015, an earthquake occurred in Nepal. A couple of service members on one of the ships had families in Nepal. One wife was there, pregnant, and it was a two-day walk to the nearest shelter. We never send people into disaster zones. We can’t do that. What we have to do is get commands involved and say, “We want you to send this person to this disaster area, so he can make sure his wife is okay.” We got the commanding officer involved, who said, “Yes, please send him.” We sent him to Kathmandu to find his wife. He did, and he got her and the rest of the family to safety.

So that’s a little idea of what we do financially. There are many more categories that we help with, this is just a small list.

Budget for Baby Classes. This is a very popular program. It’s open to all pay grades, from enlisted to officer. We give out several things during the class, like a handmade blanket from a volunteer, knit by volunteers, and items donated by Gerber. It’s all free for us. The yarn is also given to us. We give it to our volunteers to make blankets. The *Baby and You* book is from our visiting nurses, which I will talk about later. In the Budget for Baby program, we talk about how much these bundles of joy cost, which is quite a bit. It’s always a shock to our families, but wonderful information. It is a very popular class.

Thrift Shops. Thrift shops we already talked about. Some of you have seen them firsthand. We have twenty-eight thrift shops. They are all volunteer-run. Paid staff are not allowed to work in the shops. It’s a wonderful program. Every dollar that is received is put back into the Society for the loan programs, Visiting Nurse program, the Budget for Baby program. It’s all put right back into the Society, 100 percent.

Visiting Nurse Program. The Visiting Nurse program is definitely one of the most robust and multifaceted programs that I could ever imagine. We’re the only organization that can send nurses to people’s homes. It’s all free. They do free home visits. We have about twenty traditional nurses, obstetrics nurses, family practitioner nurses, neonatal intensive care unit nurses, and pediatric surgeon nurses. They do new-parent visits at people’s homes. They do weight checks for the baby, wellness

checks for mom, and prenatal and postnatal visits. They can remind you how to bathe your baby. They can advise you on anything that you may be worried about as a new parent, which is many things. They can do preoperation and postoperation care. It's not just for new parents. They visit many, many of our retirees and widows and help them with chronic medical conditions. They also can pick up prescriptions for their patients and bring them to their home if they can't get there. We have one nurse who goes to a widow's house every month and helps her with her insulin, because she's blind and she's eighty-five.

Combat Casualty Assistance Visiting Nurse Program. This is a division of the visiting nurse program. The nurses assist injured sailors and Marines. We have nurses going to every state (except Alaska, because they don't have a patient in Alaska). They get on a flight and go see their patients wherever they are. They will travel to [Walter Reed National Military Medical Center](#) or to their homes. They will talk to patients on the phone. We had one nurse travel to the Midwest. The patient had called her and said, "I'm thinking about ending it all." She got on a flight and saved his life. It's an amazing, amazing program. It is all free to our service members' families, retirees, widows. We have nurses at every location, even overseas. We had three in Sasebo.

The Power of Our People. Our volunteers are absolutely everything to what we do. We cannot do it without them. We always get the question, "How do you pay your volunteers?" It's a great question. It's the best one. We appreciate them. We do [National Volunteer Week](#), volunteer award ceremonies, certificates of merit. We do appreciation luncheons. We also reimburse them for their childcare expenses during the hours that they volunteer at the office. And we reimburse them for tolls and mileage for distances they travel to the office. Sometimes they can walk to us. Sometimes they drive eighty miles. We have folks at Newport that knit for us and they cannot drive. We have one legally blind volunteer who knits. We will go to her house to pick up the blankets when they're ready. Last year 481,000 hours were spent carrying out the Society's mission. It's just incredible.

That's a very general overview of what we do on a daily basis. We have offices everywhere—in Japan, Korea, Greece, Italy, Germany, Bahrain. We're opening a new office in Bahrain very soon. There are offices all over the United States. It is a wonderful organization.

I keep talking about Japan. We had many Japanese volunteers who translated every PowerPoint presentation that we gave for Budget for Baby and budgeting basics classes. Our Japanese volunteers translated every presentation so our Japanese spouses could take every class and understand everything that was going on. We do this everywhere. It's definitely an international organization and a wonderful organization.

DISCUSSION

Question

The nurses' program—are those volunteers also?

Response:

Overseas they are volunteers. All three in Japan, in Sasebo, were volunteer. In the United States they are paid. So the sites outside the continental United States are the only ones where they can be volunteers.

Question:

How do you get your volunteers abroad?

Response:

That's a great question. We do many base indoctrinations. In the base indoctrinations, when people move somewhere, they have a fair. We get people who are teachers. Maybe they are only in a place for nine months. They can't find a teaching position. So they teach one of our classes.

We put it out on Facebook and other social media, and we go through the grapevine. We always advertise. We always have our nametags on and our tote bags. Honestly, it's from conversation. People who have volunteered in other locations will look when they transfer. They will come to our office and talk about opportunities.

It's through the base fairs, indoctrinations, ombudsmen, the family readiness groups. We have a lot of retirees, spouses, and tons of active duty. Many locations have an after-hours case-working program. That duty phone is manned by the active duty. A lot of our active-duty knitters are men. We had about twenty-five in Sasebo. They all worked at the clinic. They would never let me take a picture of them.

We also have active duty who want their volunteer service medal. So they give up their lunch hours and work at our thrift shop. We get them from everywhere—just being involved, being on bases every day, and talking to people.

Question:

Where do you get the funding from?

Response:

It is a nonprofit, so everything is from donations. Our active duty are very kind. They run a fund drive for us every March. The active-duty fund drive brings in anywhere from US\$11 million to US\$15 million. Our headquarters' office runs a campaign fund drive for retirees. The retirees help us with about another US\$5 million to US\$10 million.

We do have a reserve fund, an investment fund, that we pull from if we don't break even with the loan repayments. There is a 1 percent default rate on the loans. We grant loans for people who simply cannot afford it. We grant loans to service members who have passed away. We do have to pull from the reserve fund every year for that reason.

Question:

Do students volunteer?

Response:

We just recruited a volunteer this week. She's going to the University of Rhode Island. She's getting her degree in psychology and needs six hours a week for her degree. So she's coming in every week. She's also an Air Force spouse as well. We also have children of volunteers who are high school students. They come in and help with the thrift shop.

Question:

Do you give documentation that they have worked with you?

Response:

We do. We have letters for volunteers who need them for school. We have letters for civilians who are just doing it because they love it. We have letters for active duty who need them for their commanding officers. So we have different forms. We have different levels of certificates, appreciation, and hourly awards.

APPENDIX B

List of Delegates

Albania

BG Ylber Dogjani

Algeria

M.G Haouli Mohammed Larbi

Angola

ADM Francisco José

Antigua & Barbuda

Lt Cdr Elroy Skerritt

Argentina

ADM Marcelo Srur

CN Félix Plaza

Australia

VADM Tim Barrett

The Bahamas

CAPT Clyde Sawyer

Barbados

Lt Cdr Mark Peterson

Belgium

RADM Wim Robberecht

Belize

RADM John Borland

Benin

CVS Joseph Gonsallo

CVS Jean Olatoundji

Brazil

ADM Eduardo Leal Ferreira

CALte André Silva Lima

Bulgaria

RADM Mitko Petev

Cabo Verde

CPAT Pedro Santana

Cambodia

VADM Sokha Tea

RADM Sokha Sam

Cameroon

CA Jean Mendoua

MG Esaïe Ngambou

Canada

VAdm Ron Lloyd

DC Ops Mario Pelletier, DC Ops

Chile

ALMTE Enrique Larrañaga

VADM Osvaldo Schwarzenberg

CAP Gonzalo Peñaranda

China

VADM Shen Jinlong

SCAPT Zhang Zheng

Colombia

Valm Ernesto Durán

Comoros

COL Idjihadi Youssouf

COL Hamza Said

Republic of the Congo

RADM André Bouagnabea

Côte d'Ivoire

RADM Djakaridja Konaté

CAPT Amara Koné

Croatia

RADM Predrag Stipanovic´

Cyprus

CAPT Kyriakos Pochanis

Denmark

RADM Frank Trojahn

Djibouti

Col Wais Bogoreh
Capt Hassan Mireh

Dominican Republic

Contralmte Joaquín Peignand

El Salvador

CAP Rene Merino

Estonia

CAPT Sten Sepper

Fiji

RADM Viliame Naupoto
CAPT John Fox

Finland

RADM Veijo Taipalus
CAPT Pasi Pajunen

France

ADM Christophe Prazuck
RADM Stanislas Gourlez de la Motte

Gabon

CDR Loïc Moudouma

Georgia

CAPT Temur Kvantaliani

Germany

VADM Andreas Krause

Ghana

R/ADM Kofi Faidoo
Cdre James Kontoh

Greece

VADM George Giakoumakis

Guatemala

VADM Boris Castillo

Guinea-Bissau

ADM Carlos Mandungal

Guyana

CAPT Gary Beaton

Haiti

CD Joseph Wagnac

Honduras

RADM Jesus Benitez

Iceland

RADM Georg Larusson

CDRE Asgrimur Asgrimsson

India

ADM Sunil Lanba

RADM Dhiren Vig

Indonesia

ADM Ade Supandi

RADM Agus Heryana

Iraq

sRADM Ahmed Alzayd

sRADM Kareem Al-Mhanawi

Ireland

CDRE Hugh Tully

Cdr Steve Walsh

Israel

VADM Eli Sharvit

Italy

VADM Valter Girardelli

RDML Danilo Balzano

Jamaica

Cdr Antonette Gorman

Japan

ADM Tomohisa Takei

RADM Yuki Sekiguchi

Jordan

RADM Ibrahim Alnaimat

Kenya

Maj Gen Levi Mghalu

Kiribati

ASP John Mote

Republic of Korea

VADM Lee Beom-Rim

Kuwait

MG Khaled Abdullah

BG Waleed Al Obaidi

Latvia

RADM Ingus Vizulis

Lebanon

RADM Majed Alwan

Liberia

LCDR Cephas Gboe

Lithuania

CAPT(N) Arunas Mockus

Madagascar

CAM Padoue Ranaivoseheno

CFR Dieudonne Mamy-Rakotomanga

Malaysia

Adm Ahmad Kamarulzaman

Malta

Brig. Jeffrey Curmi

Maj. James Grech

Mauritania

CAPT Aboubekrine Hanena

Mexico

ADM Vidal Soberon

RADM Francisco Bringas

Mozambique

RADM Eugenio Muatuca

Myanmar

ADM Tin Augn San
CDRE Kyaw Soe Moe

Namibia

RADM Sinsy Nghipandua

The Netherlands

LTGEN (RNLMC) Rob Verkerk
CAPT Ronald Blok

New Zealand

RADM John Martin
CDRE David Gibbs

Nicaragua

RADM Marvin Corrales

Nigeria

VADM Ibokete Ibas
RADM James Oluwole

Norway

RADM Lars Saunes
CDRE Ole Sandquist

Oman

RADM Harib Alrahbi

Pakistan

ADM Muhammad Zakaullah
RADM Jamil Akhtar
CDRE Imran Nasir

Peru

ADM Edmundo Deville

Philippines

RADM Narciso Vingson

Poland

RADM Mirosław Mordel

Portugal

ADM Luís Fragoso

Qatar

Brig. Gen. Ali Al-Mannai
Staff Brig. Ebrahim Al Kaabi

Romania

VADM Alexandru Mîrșu

St. Vincent & The Grenadines

Cdr Brenton Cain

São Tomé and Príncipe

CDR Idalécio João

Saudi Arabia

RADM Faisal Zahrani

Senegal

RADM Momar Diagne

Seychelles

Col Michael Rosette
Col Simon Dine

Sierra Leone

CDRE Philip Juana

Singapore

RADM Lai Chung Han

Slovenia

CAPT (N) Roman Anžič

Solomon Islands

Insp Michael Moali

Spain

ADM Jose Antonio Ruesta

Sri Lanka

VADM Ravi Wijegunaratne
RADM Dharmendra Wettewa

Sweden

RADM Jens Nykvist

Thailand

ADM Panlop Tamisanon
RADM Chorchat Gra-Tes

Timor-Leste

CDR Adão “Jacky” Brito

Togo

CAPT Neyo Takougnadi

Tonga

CAPT Sione Fifita
CDR George Fonohema

Tunisia

RADM Abderraouf Atallah

Turkey

ADM Bulent Bostanoglu
RADM Bulent Olcay

Ukraine

VADM Ihor Voronchenko
CAPT Andrii Ryzhenko

United Arab Emirates

Brig. Abdulla Al Shehhi

United Kingdom

Adm Philip Jones
Cdre Martin Connell
Mr. Chris Trelawny

United States

ADM John M. Richardson
ADM Paul Zukunft
ADM Phil Davidson
ADM Michelle Howard
ADM Scott Swift
ADM Kurt Tidd
ADM (Ret.) Guillermo Barrera, ARC
ADM (Ret.) Nirmal Verma, IN
VADM John C. “Lung” Aquilino
VADM Joseph Aucoin
Lt Gen Ronald Bailey
VADM Bob Burke
VADM Ted Carter

VADM Philip Cullom
VADM Kevin Donegan
VADM Jamie Foggo
VADM Mike Franken
VADM Mike Gilday
VADM Fred Midgette
VADM Joe Mulloy
VADM Frank Pandolfe
VADM Charlie Ray
VADM Joe Rixey
VADM Karl Schultz
VADM Dixon Smith
VADM Jan Tighe
RADM Sean Buck
RADM Jeff Harley
RADM Mike Manazir
RADM Dee Mewbourne
RADM Dave Score
RADM Jim Shannon
RADM Bob Sharp
RADM John Smith
RADM Mat Winter
RDML Jim Loeblein
RDML Frank Morley
RDML Todd Squire
Dr. Lewis Duncan
Ms. Victoria Krikorian
Dr. James Lewis
Dean Tom Mangold
Mr. Denny McGinn
Ms. Kelli Seybolt
Mr. Bruce Stubbs
CAPT Paul Stader

Uruguay

ADM Leonardo Alonso
CN Fernando Colombo

Vanuatu

ACP Tari Tamata

Vietnam

RADM Pham Hoai Nam
Snr Capt Bui Trung Tan



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