Nineteenth International Seapower Symposium

United States Naval War College
Newport, Rhode Island
6–9 October 2009

NINETEENTH
INTERNATIONAL SEAPOWER SYMPOSIUM

Report of the Proceedings

XIX
International Sea Power
Symposium
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Report of the Proceedings 6–9 October 2009

Edited by

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and
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U.S. NAVAL WAR COLLEGE
NEWPORT, RHODE ISLAND
2010

Editor's Note

The editor has made every attempt to establish a clear and accurate record of the symposium proceedings, one that faithfully records the opinions and views of the participants. In establishing the printed text from speaking notes, transcripts, seminar notes, and tape recordings of speakers or of the official English-language simultaneous translators, the editor has silently corrected slips of grammar, spelling, and wording. He has inserted full names and ranks when omitted by the speaker, and occasionally a word or phrase in square brackets to clarify the text.

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PRESIDENT, NAVAL WAR COLLEGE
Newport, Rhode Island
02841-1207

5 October 2009

Distinguished Delegates & Spouses,

Welcome to beautiful Newport, Rhode Island and to the nineteenth *International Sea Power Symposium,* hosted by Admiral Gary Roughead. We welcome, in particular, 44 returning alumni from the Naval Command College and Naval Staff College including 19 navy chiefs. This year's theme is "Connecting Navies, Building Partnerships." This theme can justifiably be used to make a direct connection between this symposium and the first one forty years ago.

In 1969, Vice Admiral Richard Colbert, the 35th President of the Naval War College, stood before the leaders of the world's navies and said, "We are gathered in a truly historic meeting. Never before have so many brilliant and penetrating minds from so many countries gathered in search of a common end." Present at that first meeting were 80 senior officers from 37 countries, including 20 navy chiefs. At that *Free World Sea Power Symposium* (as it was called) Admiral Arleigh A. Burke said, "More naval talent is gathered in this room than has been assembled any place in many generations." This year over 100 navy chiefs will be present when Admiral Roughead opens the symposium. Admiral Burke would be pleased.

Over the next three days we have work to do. We will discuss complex, challenging issues. I am quite certain we will exchange ideas and enhance our professional and personal ties. Together we can advance the vision of Admiral Burke, who established the first program for international officers here 53 years ago. He believed that by working, studying and sharing experiences together, naval officers could enhance trust and confidence and promote lifelong bonds of friendship and cooperation to help prevent or resolve future conflicts.

Once again, on behalf of Admiral and Mrs. Roughead and my wife, Anne, we welcome each delegate, staff officer and spouse to the nineteenth International Sea Power Symposium. I look forward to getting to know you better this week.

Very respectfully,

J. P. Wisecup
Rear Admiral, U.S. Navy

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Welcoming Remarks

The Honorable Hillary Clinton
Secretary of State

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Chief of Naval Operations

Honorable Hillary Clinton:

[Live Video Teleconference from the State Department, Washington, D.C.]
I am very honored to be able to address you today here at the largest gathering of naval leaders in history. The efforts you are undertaking to advance mutual interests and collective security are essential to effectively addressing some of the most important issues we face in this interconnected world of the twenty-first century.

Trust and cooperation between navies and coast guards have always been key enablers of diplomacy. Your efforts to promote international cooperation on issues such as piracy, smuggling, natural disasters, and other threats enhance the security not only of your nation but of all nations, and strengthening our maritime partnerships have become even more critical in this century.

Globalization has generated transnational challenges that don't recognize borders or nation-states. No one nation has the resources or capacity to meet these challenges alone. As President Obama made clear at the United Nations General Assembly last month, the need for cooperation among states has never been more urgent and your efforts on the seas of our world more vital.

From the Joint Interagency Task Force South to counterpiracy operations in the Gulf of Aden to the many other joint maritime partnerships, you have contributed to the robust and expanding international cooperation that we so desperately need. On behalf of President Obama and the American people, thank you for your service and for your collective efforts toward a more peaceful, stable, and prosperous world.

Associate Dean for International Programs Vincent Mocini, Naval War College:

At this time, it's my pleasure to introduce the President of the Naval War College. After graduating in 1977 from the Naval Academy, he earned graduate degrees

from the University of Southern California and from the University of Strasbourg, France, where he studied as an Olmsted Scholar. He's had various commands, including sea service during OPERATION DESERT STORM and later [as] Commander of Destroyer Squadron 21. Ashore, he served at NATO Headquarters and was a Fellow in the Chief of Naval Operations Strategic Studies Group. He was also Director of the White House Situation Room. His first assignment as a flag officer was as Commander of U.S. Forces, Korea and he most recently served as Commander of Strike Group 7, the USS *Ronald Reagan* Strike Group.

As you can see, he comes to this job with extensive experience, both national and international. At this time, I'm pleased to introduce the fifty-second President of the Naval College, Rear Admiral Phil Wisecup.

Rear Admiral James P. Wisecup, United States:

Good morning, everyone. Welcome to Newport and to the Naval War College, celebrating our 125th anniversary yesterday. To some of you, I must add, welcome back. You have traveled far to gather in this room and engage with your contemporaries who lead the world's navies. We meet here on the banks of the Narragansett Bay in our newly renovated auditorium named, as you know, after Raymond Spruance, the famous U.S. naval leader who served as the 26th President of this Naval War College, then retired to become U.S. ambassador to the Philippines some sixty years ago.

Forty years ago in 1969, at the first Seapower Symposium, held in Mahan Hall, right here in Newport, Admiral Richard C. Colbert, then President of the Naval War College, welcomed the leaders of the world navies. The keynote speaker was Arleigh Burke, then retired, who was the longest-serving CNO in the history of the U.S. Navy. Present were eighty high-ranking navy representatives of thirty-seven different countries, including twenty chiefs or deputy chiefs. Today, we gather at this Nineteenth Seapower Symposium with leaders from over one hundred navies of the world, including more than ninety chiefs of navies. When you consider the fact that there are also other distinguished senior American civilian and military leaders in this room and selected members of the War College faculty and staff, I think you will agree with me that Admiral Arleigh Burke would certainly be pleased today.

After that first symposium, many of those delegates who attended sent letters to the President of the Naval War College. Looking at these letters, we see the profound effect the symposium had on officers from around the world. We have put a few of their remarks into some posters commemorating the fortieth anniversary of the International Seapower Symposium. I invite you to look at these posters that are displayed in the lobby and at the Officers' Club with quoted remarks from many of the officers who described their impressions.

Again, it is an honor and pleasure to welcome you and your spouses to the Naval War College and to this symposium. Anne and I really enjoyed meeting most of you last night and look forward to the opportunity to spend time with you over the next three days.

I'm particularly pleased to note the many alumni of this college, [who have] graduated from our Naval Command College or the Naval Staff College. Of this number today, some are now serving chiefs of their own navies. To all our former

students, you came to Newport years ago, recommended by your service chiefs as future leaders, expected to do great work and lead your service into the future. The fact that you are here is clear proof that you have done so. Congratulations on your success and welcome back to Newport.

We hope all officers in this room, both alumni and nonalumni, will join us tonight at the Officers' Club for a reception in honor of the returning alumni and the more than eighty officers from fifty-plus countries who make up this year's group of international officers.

You here today are the senior leaders of the greatest navies, coast guards, and maritime services in the world. The cut and color of our uniforms may vary, as do the languages and the cultures of all the participants, but we all have a common set of bonds that will always link us together. These include an understanding and respect for the sea that comes only to those mariners who have challenged the oceans throughout their careers, a commitment to service and sacrifice in support of our own nations, and a desire to work collectively with friends and partners to solve common problems.

It is this desire to improve our nations' security through cooperation and collaboration that lies at the heart of the International Seapower Symposium series. For four decades, the leaders of the world's seafaring nations have gathered on the shores of historic Narragansett Bay to share ideas, strengthen cooperation and friendship, and plan for the future.

We can all agree that the world has changed since first meeting forty years ago. Tremendous political, social, and economic changes and, in some cases, upheavals have occurred. It has been an interesting time, for sure, to be a naval officer.

The title of our symposium is *Connecting Navies, Building Partnerships*. In the next three days, we will look at some ways that the navies and coast guards help ensure peace, promote prosperity, and provide maritime security. The importance of enhancing maritime domain awareness and maritime security has never been greater. This symposium underlines the value of sharing experiences and considering new ideas. We sit in this room as equals, looking at the same issues, while we develop this habit of partnership. The ideas you're willing to share are of value, no matter if you're from a nation large or small, from a blue-water or a littoral navy or a coast guard, we all share this planet together. Open discussion and full participation by all is encouraged—no, it's expected—and this indeed promises to be a rewarding three days.

Over the years, the achievements of these symposia have not been limited to or even entirely expressed in the printed record of academic discussions. Over the forty years devoted to building a global network among maritime service professionals, the main achievements in these symposia have been created through the friendships made or revived between professional officers—the personal camaraderie, conversations in the corridor, general ideas exchanged and, later, turned into concrete action in some other more specific context.

We can, however, point to a number of issues which were either related to or derived from this series of meetings. For example, these include the growth of regional arrangements, such as the Inter-American Naval Conference, the Western Pacific Naval Symposia, the Black Sea–Mediterranean Regional Symposia, the Indian Ocean Naval Symposium, and the African Sea Power Symposium, just as

examples. Other examples of progress include the fact that many navies have been cooperating extensively to enhance global maritime domain awareness and to provide enhanced maritime security from piracy, smuggling, and other criminal acts.

Participation at ISS has grown steadily over the years and I believe this year's event may, in fact, be the largest gathering of naval leaders in history. It is momentous; it is unprecedented.

Let me conclude by saying we're glad you're here; we hope you brought family. CNO, Admiral Roughead, many thanks to you for being so supportive and for supporting the renovation of this wonderful facility here in Spruance Hall. The Naval War College is at your service.

Admiral Gary Roughead, United States:

Admiral Wisecup, Phil, thank you so much for the introduction and congratulations to you and to your staff and to the many men and women who make possible events like this, for the War College to be able to host another historic moment, here in Newport, Rhode Island. I would also add my congratulations on the 125th anniversary of the Naval War College. I'm sure that it's only the beginning of a great future that will take place here. And I also commend you on finishing this auditorium in time for the International Seapower Symposium. But as the last variation of the auditorium was referred to by so many of the students who have gone through here as the "blue bedroom," they'll have to get a new name for this. So maybe we'll take a poll at the end and we'll decide on what it should be.

I regret that we have had to change the program a bit. Regrettably, I have to return to Washington tonight for a brief meeting and then I will return again in the morning, but that is what's driving the change in the schedule and I appreciate your flexibility and your understanding of what is driving that.

But it is indeed a great honor for me to welcome this truly extraordinary assembly of colleagues and friends from around the world and I thank you for making the effort to travel all this way. I know how busy each of you [is] and the responsibilities that you have and to take this time to be able to come the distances that you have is so very important and I thank you for that.

I'm also confident that the weather at the end of the symposium will be better than it has been in the past. I think [at] one of the most recent ones, we had a lot of snow delays as people were trying to leave, but I do believe we're in for a tremendous week here at the International Seapower Symposium.

I would like to begin this conference by reflecting for a moment on the importance of our meeting. At this largest gathering of naval leaders in history, we here today represent our countries' efforts not only to defend our respective maritime interests and our shores, but also to secure the global maritime commons at a time of great challenge. The stakes are massive: our activities—individually and in partnership—are vital to future generations.

Speaking before the United Nations General Assembly two weeks ago, my commander in chief, President Barack Obama, underscored the need for cooperative efforts to address the world's problems. As I stand before you today, I am humbled to associate myself with fellow mariners and leaders, who are already well advanced in building invigorated partnerships around the world to address many of the very problems the president and other world leaders cited.

In the four decades since the first International Seapower Symposium, and especially in the two years since the last symposium, we have all become increasingly mindful of the centrality of partnership to the preservation of safety and security of the world's oceans and the prosperity that comes from that. We have launched a range of initiatives in recent years and, at this conference, we will assess yet more opportunities before us. I believe that we, as maritime service chiefs, are on the cutting edge of international partnership, and I do believe that we must challenge ourselves in ISS Nineteen to think expansively about how our mutual efforts can safeguard international peace and prosperity in the twenty-first century.

In the time since the first International Seapower Symposium, in 1969, the year that I entered my Naval Academy and began this wonderful voyage that I have been on, the world has changed dramatically. In so many ways, it is a better place. Nonetheless, in the maritime security area, it faces many new and, in some cases, more difficult challenges. Through the decades since International Seapower Symposium number one, however, this symposium has endured and prospered, because its purpose has held fast. A purpose which, in the words used at that first gathering, is "to promote mutual understanding of our common problems and interests, as well as each other's problems and interests." That enduring principle—that we should come together to discuss our common interests and overcome our common challenges—has driven our achievements over the years. As Rear Admiral Ahmed from Bangladesh said recently at another conference that I was privileged to attend, "it is the sea that unites." And over the past two years, it certainly has. These past two years have been more remarkable in terms of global maritime partnerships than the preceding thirty-eight years all together.

Today, we welcome six nations to their first International Seapower Symposium: Cambodia, Guyana, the Maldives, St. Vincent and Grenadines, Russia, and Vietnam, who are represented for the first time by delegations from their home countries and we are very pleased that you have joined us. [Applause] Together with you, our distinguished group makes a total of over one hundred nations and over ninety chiefs of service—the largest assembly yet and nearly three times the number who came together in 1969. The trend is clear—partnerships are growing. They are growing because they work, and they will continue to grow because there is still more to do in our changing and uncertain world.

So thank you for coming, thanks to all of you for making this symposium a productive gathering of navies and maritime forces. There is much happening in the maritime domain, much for us to do, and I am confident that this event helps us all to come closer to our common goals of safety and security of the seas.

When I last stood before you at this symposium two years ago, my counterparts in the United States Marine Corps and in the United States Coast Guard [and I] unveiled the "Cooperative Strategy for 21st Century Seapower." That strategy, with conflict prevention and international partnerships at its core, has served our navy and our nation exceedingly well and continues to guide our thoughts, our plans, and our actions, leading our navy and maritime services. Our task is to prevent conflict whenever possible, while being ready to fight for our interests should prevention fail. For now, we may still ask our young sailors to go into harm's way, and we must do so responsibly, according to strategies that meet the demands of today's world and the needs of our countries.

One of the central ideas in the U.S. maritime strategy is Global Maritime Partnership. The U.S. services' interest in Global Maritime Partnership stems from our desire to seek out cooperative approaches to maritime security and promoting the rule of law. President Obama reminded leaders in New York that no single country can remedy the great problems of the day. The challenges to maritime security offer some of the clearest demonstrations of this point: there are many of them and no one country can adequately confront them alone. Hence, we stand together here in Newport this day.

Trust, personal trust, is indispensable to partnerships of any kind. As I asserted here two years ago, trust cannot be surged. With that as my guiding principle, I have spent the past two years traveling the globe, meeting with many of you and learning from your experiences, so that I can better understand your concerns and proposals to make the maritime domain a safer place. I must tell you that one of the most exciting things I confirmed in my travels is that the desire for partnerships exists across all of our services and our nations, and that we are all in good and rich company as we seek to promote maritime partnerships around the planet.

In preparing for this symposium, I've reflected with gratitude on the hospitality of my fellow mariners around the world and my respect for their cutting-edge approaches to the world's problems. In the last two years, I've attended the Chiefs of European Navies Conference in Bulgaria, the Regional Seapower Symposium in Italy, and the Maritime Planners' Conference in Denmark; and in between, I was able to spend some time with the Royal Navy.

I visited the kingdoms of Saudi Arabia and Bahrain, the United Arab Emirates, Iraq and Pakistan and Djibouti.

And though I was unable to attend the Western Pacific Naval Symposium, because of commitments here at home, I have visited Japan and Singapore and South Korea. I attended Indonesia's SAIL BUNAKEN Fleet Review and in China, the sixtieth anniversary of the People's Liberation Army Navy.

I journeyed to Chile, where I participated in EXPO NAVAL. I made the first U.S. counterpart visit to South Africa, where I was greatly impressed by the professionalism and spirit of South Africa's proud navy. In the next two years, I hope it will be convenient to visit with more of you in your countries, and I will be honored to host you here in the United States. Our personal relationships are the first step in the trust I mentioned before. If we are to develop those habits of partnership that are so fundamental to our effective cooperation then our personal relationships are an investment in that future. Indeed, in those moments when disaster or crisis demands the most from us, our relationships may yet pay the highest dividend.

Speaking for myself and for my navy, therefore, the principle of partnership is at the core of our maritime strategy and our approach to the world. Fortunately, the U.S. Navy is not alone in that regard. Maritime services around the world are demonstrating inspired leadership and launching naval partnerships to meet common challenges. These efforts confirm that there need be no contradiction between defending our countries' sovereign rights and sailing together against the common threats to our welfare.

Just to cite a few examples of these efforts, the Strait of Malacca patrols by Indonesia, Malaysia, Singapore, and Thailand have drastically reduced piracy in those waterways. Then there's the newly deployed Economic Community of Central

African States, which has agreed to work together on patrolling waters of mutual interest and to monitor an Operations Center in Cameroon. Another remarkable and unique example of regional partnership is the Coral Triangle Initiative, an important environmental program that has gained global support and addresses an issue of consequence for all of us.

This list is hardly comprehensive and I'm sure that when we meet again in two years' time the record of global maritime partnership will have grown substantially larger. In assessing the fruits of partnership, I think it is also important to consider briefly the progress we have made in addressing particular tasks. Information sharing and the pursuit of maritime domain awareness remain key focus[es] of our work together, and I'm deeply satisfied to observe that we have made important gains over the past two years. For example, navies from the Americas have participated in advancing the Inter-American Naval Telecommunications Network (IANTN), a secure regional communications system.

In another part of the world, Italy has demonstrated vital leadership in establishing a Trans-Regional Maritime Network. Our goal should now be to bridge the regional security awareness initiatives in support of yet broader awareness and partnerships.

Besides information sharing, we must also work toward greater interoperability. There are many ways to improve our interoperability and lessons learned of how to work together. Those lessons start, again, at the personal level.

At ISS Eighteen, I shared with you my view that we should encourage the interaction of our young sailors, noncommissioned officers, and officers. I do not think we can overestimate the lasting benefit of such contact, and—in an age of instant communication and, even imperfect, translation software—we have an unparalleled opportunity to ensure that the naval chiefs a generation from now will have known each other since their earliest days at sea, regardless of distance or language differences.

Common training also contributes powerfully to interoperability. My navy has worked hard in this area and we will continue to do so. Since 2001, for instance, we have hosted eighty-seven students from sixteen countries in the International Surface Warfare Department Head Course here in Newport. This past summer, sixty-two U.S. midshipmen deployed with seventeen foreign navies and the United States, in turn, hosted sixty-seven foreign midshipmen. And the master chief petty officer of the U.S. Navy hosted a Global Maritime Senior Enlisted Symposium in Hawaii after a similar symposium in New Zealand, where more than forty nations attended. Master Chief West, my master chief petty officer of the Navy, is scheduled to next attend the Western Pacific Naval Symposium for senior sailors in Japan in two weeks. So I believe there, too, we are moving in the right direction.

I am also pleased to announce that we're taking the next step in furthering the interaction of our people and our cooperative planning for the future. As we have shown in the past, a well-developed process of operational gaming provides credible, relevant, and timely information to decision makers. Accordingly, we are going to conduct the first-ever force-planning game [which] is linked to ISS and [to be] held in the years between these symposiums. Therefore, next October, we will have a game with our international partners that will be informed by the results of this symposium and seeks to address the needs of our partners.

Our encounters on land are very important, but there is no substitute for refining and exercising interoperability under way. USS *Cole*'s deployment with the Royal Navy's HMS *Illustrious* strike group, for instance, rendered invaluable lessons. We can also learn interoperability from combined training exercises that range from the innovative Australian Pacific Patrol Boat Program to the UNITAS exercise, which, this year, included twelve nations from North and South America and Europe.

Such lessons can be learned through humanitarian assistance and disaster response initiatives, as we saw dramatically in the tsunami disaster relief operation in 2004. The U.S. Navy today stands ready to participate in relief assistance with other navies for those people affected by earthquake, tsunami, flooding, and typhoons. And my deepest condolences go out to the victims of these recent natural disasters.

Ultimately, the time we spend learning and improving interoperability is time well spent when it comes to issues of maritime security. The Joint Interagency Task Force South is a partnership that has achieved interoperability and leverages the unique capabilities of each partner. Task Force 150 also stands out as an example of a developed, mature partnership that is making an important difference in the Middle East. The Pakistan Navy has made a particular impact there since 2004, where it has led that task force three times. But there is perhaps no better example today of maritime partnerships than the work so many of us are doing against piracy—a navy's oldest foe—in the Gulf of Aden. The presence there of navies from all over the world is truly unprecedented and very much needed for a security challenge that affects such a large ocean area.

So we have made remarkable progress over the past two years and while we should and have every right to be proud, we must recognize that there are many more opportunities ahead of us—opportunities that will occur naturally, opportunities that we will create, and opportunities that we can realize only through our mutual efforts.

I look forward to spending time with all of you throughout this symposium. I look forward to the rich and important discussions that we will have. And I look forward to working with all of you to develop and bring to fruition the ideas that will improve maritime security for all. Above all, I look forward to connecting navies and building partnerships.

I invite you to consider our efforts in historic context. Common use of the high seas has been a driver of international cooperation and institution building for centuries. Today in the early years of the twenty-first century, I am convinced that our new partnerships—informal, as well as formal, local as well as global—are writing a new chapter in the development of international society.

As we begin this conference, I offer two quotes that I think are especially relevant to our endeavors. The first is from the Indonesian Maritime Forum in August of this year, where Vice Admiral Nolting made the bold but unassailable assertion that the twenty-first century will be a maritime one. I couldn't agree more with my good friend and partner. Second, Vice Admiral Colbert, then President of the Naval War College, at the first International Seapower Symposium, in 1969, stated the following: "This common experience, this common bond . . . can provide the catalyst for friendly, cooperative examination. With the unprecedented wealth of talent and experience mustered here, we may well shed fresh light on current problems and

potential difficulties and, perhaps, even bring forth previously unrecognized issues of mutual interest."

That sounds remarkably familiar to what someone could say today.

And if the original members of the first International Seapower Symposium were optimistic in 1969, when only thirty-seven countries were present, then today, with over one-hundred countries in attendance, we have very, very firm ground to truly believe that on our watch, we will carry forward our mission of improving the security of the global maritime commons in the interest of peace and prosperity for future generations. Thank you very much.

2

An Address

The Honorable Ray Mabus

Secretary of the Navy

Admiral Gary Roughead, United States:

It is now my distinct pleasure to be able to introduce our first speaker and the seventy-fifth Secretary of the Navy, the Honorable Ray Mabus. Secretary Mabus has led a life of service in numerous government roles. He was the governor of our great state of Mississippi from 1988 to 1992, and later, he served as the ambassador to the Kingdom of Saudi Arabia from 1994 to 1996. But perhaps for us here, one of the most important points of his career was that he, too, has worn the uniform of a naval officer early in his life in service to his country, aboard the USS *Little Rock*, one of our cruisers, forty years ago. But I [can] also tell you, in working closely with him, that he is a principled leader who has a personal appreciation for the importance of the seas and of the maritime forces and that he has true concern and regard for that which all of us hold most precious: the young men and women who serve in our navies, our coast guards and in the maritime services—those young men and women that we ask to go forward and do the hard work of our countries. So, ladies and gentlemen, it is a great honor and privilege for me to introduce the Secretary of the Navy, the Honorable Ray Mabus.

[Applause]

Secretary of the Navy Ray Mabus:

Thank you to Admiral Roughead for that introduction, but also, personally, [I thank] Admiral Roughead—I am so fortunate to have him to serve as the CNO, while I am secretary. America is fortunate to have Gary Roughead serving as our CNO and the world is fortunate to have him, because of things like this, because of his interest in the world and in our maritime security.

To the distinguished leaders of the world's navies, thank you for being here today at the War College and thank you for having me here today. Just on another very short, personal note, yesterday was my wedding anniversary and I was in New York for a television appearance on a comedy show and the show was not taped until last night. So I took my wife to New York with me—wanting to have more anniversaries—and we didn't go out to dinner until pretty late. After dinner—we have three children and they were all with us—we went out and got dessert. So last night was a late night and I apologize for any lack of energy this morning, but I thought that observing my anniversary was maybe the most important thing for my well-being in the future. So thank you, thank you for having me.

You know, for 125 years this War College has served as an international professional university where our officers and officers from around the world have come

together, learned from each other, and worked together to address the issues of our day. A lot of you know this from experience, having attended as students here. To you I say welcome back to Newport and to the War College. To those of you for whom this is a first visit, welcome to Newport. It's an honor for me to be here, to participate in this continuing legacy. It's even a greater honor to be the only civilian granted the privilege of addressing you. The obligation to be a good speaker is not lost on me and following our CNO is never, ever an easy task.

The CNO mentioned that early in my life I served as a naval officer, and I served here. My ship was homeported about a mile from here and I went in and out of Newport numerous times and I am glad to be back here and particularly glad to be back with you, because, looking around this room, the depth of experience and the depth of talent represented here is simply incredible. You collectively hold more than 3,200 years of maritime experience. That's why this symposium is so important and why, as a civilian leader of America's Navy and Marine Corps, I want to talk about where the United States Navy fits into the global maritime community, as well as address some of the challenges that I see that confront us as an assembly of nations.

Your presence here at this symposium clearly demonstrates that the bonds of naval service and the bonds of mutual respect transcend national boundaries. This forum is critical to maintaining open lines of communications across borders and across political divides. It is these face-to-face meetings and the personal relationships that are started or strengthened here that will bear fruit in our dealings with one another. In a lot of cases, it is your work and the work of your officers back home that sets the stage for diplomatic engagement and acts as a complement to the discussions between our foreign ministries.

This symposium is also a reminder to the United States Navy that we are part of the greater fellowship of the sea, forged by the timeless bonds of wind and wave. This truth has become even clearer to me as I've traveled around the world and talked to our young men and women in uniform. Our sailors, our marines, at all levels in the chain of command, increasingly think in terms of joint operations, combined operations, coalition operations. The junior officers I've met with talk of the links they've established during operations with their junior officer counterparts in South America, in Africa, in Asia, in Oceania, in Europe. What this tells me is that our young sailors, our young officers, are reaping the benefits of your efforts at a senior level to tie our nations closer together and to combat the world's burgeoning maritime challenges. If our junior officers are talking, if they're establishing those close, personal ties at an operational level and they consider doing so a natural part of their naval profession, then as those individual relationships grow, so will the bonds between our countries.

The ocean is a big place and each of us is just one partner in the global maritime community. The ocean connects us all, it sustains us all, and [it] is the foundation for the commerce on which the world's economy rests. Any security challenge that impacts freedom of the seas and the free use of the maritime commons ultimately affects the economic prosperity and stability of us all.

The United States is not alone and we recognize that good ideas come from everywhere. You are the experts in your own regions and you are all confronted by

individual regional issues that blend into the greater challenges faced by the maritime community, challenges that can be better met by multilateral solutions.

We have seen this illustrated globally in the form of resurgent piracy, a universal problem that requires and is receiving a cooperative international solution. It is the effort of our navies [working] together that will lead to this improved maritime security. This begins with creating the ability to communicate with each other and then using that ability. All around the world, I'm encouraged by the efforts of the international community to facilitate open communications. As the CNO mentioned in his remarks, off the Horn of Africa there are over twenty nations that are participating in antipiracy efforts. Some are contributing ships, others aircraft, and still others are prosecuting the criminals ashore that were apprehended at sea by these patrolling vessels. This close coordination is only possible because of the work done at the tactical and operational levels to set up common communications frequencies, to deal with each other, to establish procedures for contact, and to share information between our forces on station. The international community has united against a common threat and created mechanisms to deal with it. Antipiracy efforts are obviously a high point and get a lot of publicity these days, but they are far from the only example and are echoed by operations and initiatives around the world.

In the Caribbean, Central and South America, thirteen nations work together under the auspices of the Joint Interagency Task Force South (JIATF South) and in concert with CARICOM [Caribbean Community] nations. South American and European partners locate, interdict, and destroy the flow of illegal narcotics between nations.

During OPERATION CONTINUING PROMISE 2009, ten nations contributed medical professionals to medical missions in countries throughout the Caribbean. And this, I know, has a special place in CNO's heart, because his daughter was on the ship that participated in this mission.

Off the west coast of Africa in the Gulf of Guinea, we've joined with West African states in the Africa Partnership Station to improve regional security awareness and capability. In response to Cyclone Nargis this May [2008] in Southeast Asia, many countries provided disaster relief and, worldwide, fifty-five states subscribed to the Maritime Safety and Security Information System, which shares Automatic [Identification] System [AIS] data on commercial shipping freely among all nations. It's clear and good that we're already working together: sharing information, combating piracy, responding to natural disasters, and diminishing the flow of narcotics. Our efforts matter.

But we, all of us, can do more. Our efforts, as they develop, will continue to improve maritime security and maritime cooperation. Systems like AIS and other information-sharing exchanges can give a complete and accurate picture of vessels traveling the seas and when that information is fused with radar inputs provided by shore stations and ships, we'll be more able to identify, track, and intercept those ships that exploit the sea for illegal purposes. We'll be better able to protect our ports and our fisheries and we'll be better able to ensure the free flow of trade across the high seas.

That's why we're here—to strengthen those bonds and to continue to find international solutions to our common problems. Cooperation and partnership will also

help us face the crucial issues of the future. As professional mariners tied to the sea—many of us from island nations, from maritime countries—the challenges spawned by climate change and our use of the oceans are causing us increasing concern.

[Regarding] the Arctic, those junior officers now entering the service will be the ones leading your navies when they confront a polar region free of ice in the summer and deal with the security, economic, and environmental implications of a Northwest Passage that is open much of the year. Over the next half century, overfishing in some areas will send fishermen further afield in search of a catch and could create disputes about the use of the maritime commons, resulting in challenges for fishery protection and for enforcement. And globally, energy use and resource procurement will increasingly become a factor in the decision making for all of us, as the power requirements of the maritime community continue to grow.

As a result, the global security implications of climate change and energy use will become [some] of the great challenges for our successors, as they are becoming for us, and I am committed to placing the U.S. Navy on a path to do something about them. I'm committed to looking at the way in which our navy uses power and committed to taking leadership inside the United States and looking for ways to make our energy use more efficient. I want to find places where we might be able to shift to alternative sources of energy—in our infrastructure, in our shore management, and in the fleet. I'll look forward to working with you as our international partners to find solutions to this common issue.

I want to thank you again for your attendance at this symposium. Your attendance here speaks volumes about the importance of international cooperation and about the importance you place on working together to meet these challenges. Thank you for the invitation to speak here. We have a lot to learn from each other and so much we can accomplish by working together. Working together, we can effectively combat terrorism and deter piracy. Working together, we can stop weapons proliferation and arms smuggling. Working together, we can counter human and narcotic trafficking. Working together, we can protect fisheries and the bigger ocean environment.

An old proverb reminds us that our best protection comes not from fences, but from friends. As friends, as colleagues, we will turn our challenges into opportunities and we, together, will make our world more secure. Have a great conference. Thank you.

Panel Discussion One
Bridging Regional Maritime Domain Awareness Initiatives in Support of Partnership

Moderated by
Admiral Tan Sri Abdul Aziz Jaafar, Malyasia

Panel Members:
Admiral Paolo La Rosa, Italy
Admiral Ok-Keun Jung, Republic of Korea
Rear Admiral Aland Molestina, Ecuador
Vice Admiral J. Mudimu, South Africa
Admiral Nirmal Verma, India

Associate Dean Vincent Mocini:

The professional program in Spruance Auditorium is made up of three panel discussions and you can see the subjects of the panel discussions in your program. The first one will be chaired by the CNO [Chief of Naval Operations] from Malaysia, Admiral Aziz, and the members you see in front of you will each comment on their regional symposia that they hold in their respective regions and what partnership efforts they are undertaking to try to improve cooperation.

Panel Two will discuss Maritime Domain Awareness (MDA) in practice with clear-cut examples of how forces are at sea today engaging and exploring cooperative opportunities to work together better and to address challenges of MDA.

Finally, on Friday, Panel Three will discuss leveraging our cooperative efforts to enhance maritime security operations and the thrust of those discussions will be operations in the littorals that we are engaged in right now against piracy, against drug smuggling, [and] against other types of illegal criminal activities. That discussion will take place Friday morning. We have moderators for each breakout group and we have assistants in each breakout group room. They will record the discussions in the breakout groups and they will then put those into the form of a small presentation on Friday morning as well. We will have one representative from each breakout group selected to debrief to the entire assembly the discussions that your particular breakout group had.

We would like to follow a simple format for the panel discussions and, in a moment, I'll call Panel One up. The moderator will introduce each panel member. Each panel member will make his presentation and we ask that these presentations be limited to about ten to twelve minutes. The moderator may offer comments, if he so desires. At the end, we'll open the floor for questions from any delegates in this room. We ask you to please use the microphones, and as I said, identify yourself and your country and ask your question, keeping your questions brief to allow the respondents to reply. Please indicate to whom your question is addressed, if it's

addressed to a specific panel member. In honor of the forthcoming World Cup in South Africa, and because it's a game that the whole world understands, we have adopted a football—soccer-football—method for the moderators to control these panel members. That is, if the time is drawing close, the moderator may hand the speaker a yellow card. If it gets really close to the end of his time, he may give him a second yellow card. And if he goes over his time, we all know what happens then. We hope that is not necessary at the Seapower Symposium, but Admiral Aziz is armed with his red and his yellow cards.

So, at this time, Admiral, could you please come to the stage, and the other panel members, and we'll begin panel discussion one. Panel members are invited to speak either from your seated place, or you may go to the podium if you prefer to stand.

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you, Chairman. Admiral Roughead, Chief of Naval Operations; the symposium sponsor, Rear Admiral Wisecup, the President of the Naval War College; distinguished guests; ladies and gentlemen: a very good morning to everyone.

First of all, I would like to take this opportunity to thank Admiral Roughead for the kind hospitality extended to us the moment we arrived in Providence and Newport for the Nineteenth ISS. I also thank him for the honor he has given me to moderate the first panel discussion, entitled "Bridging Regional Maritime Domain Awareness in Initiatives in Support of Partnerships."

Ladies and gentlemen, the spectrum of the present maritime challenges faced by the global maritime community is enormous. The possible solution to this challenge is through establishing partnerships among regional countries. It is considered to be the means of overcoming the challenges faced by seamen and sailors at sea. Within the context of today's symposium, partnership is loosely defined as like-minded countries working together to overcome common challenges at sea. The regional efforts to build such partnerships are mostly at full speed amidst the understanding of the benefits that could be gained. The partnership effort could be made effective through the establishment of Maritime Domain Awareness. Maritime Domain Awareness, or MDA, is defined as the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment. MDA will be achieved by improving our ability to collect, fuse, analyze, display, and disseminate assembled information and intelligence to operational commanders. Thus, Maritime Domain Awareness enables decision superiority.

Allow me to share the successful effort by the Malacca Strait's littoral states, who have been working together in a partnership to address maritime challenges in the Strait of Malacca. The partnership, as was mentioned by Admiral Roughead earlier, is known as MALSINDO and [has been] boosted through the effective MDA that has successfully enhanced the fight against sea robbery in the Strait of Malacca. The reduction in sea robbery incidents in the straits from a high of thirty-eight in 2004 to a low of just two cases last year is very laudable. The efforts undertaken by the littoral states, namely, Indonesia, Singapore, Thailand, and Malaysia, have greatly contributed to this positive outcome. The littoral states have also cooperated in the collaborative information sharing in the region. There is the Internet-based system called the Malacca Strait Patrols Information System, or MSP-IS. A similar system is being developed by the Singapore Navy, it seems to be an updated

version, and it is named the Regional Maritime Information Exchange Initiatives, or ReMIX.

Ladies and gentlemen, it will be wonderful if such regional partnership collaboratives could be reached to create a global Maritime Domain Awareness. I believe such an initiative is possible and we are fortunate today to have five chiefs of navies representing five different regions to enlighten us with their experiences and success stories. With me on stage this morning is, on my right, Admiral Paolo La Rosa, Chief of Navy, Italy. He is representing the Regional Seapower Symposium for Mediterranean and Black Sea. To his right, Admiral Jung, the Chief of Naval Operations of Korea, and he will be talking on behalf of the Western Pacific Naval Symposium. To his right is Rear Admiral Aland Molestina, the Chief of Navy of Ecuador, and he will be speaking on behalf of the Inter-American Naval Conference. On his side, Vice Admiral J. Mudimu, the Chief of Navy of South Africa, and he will be representing the Sea Power for Africa Symposium. And, finally, on the far right, is Admiral Nirmal Verma, the Chief of the Naval Staff of India, and he will be representing the Indian Ocean Naval Symposium.

Ladies and gentlemen, these distinguished speakers will discuss the ongoing and planned activities within their respective regional symposia. They will also discuss the strategic environment in their regions, the opportunities and challenges toward further regional collaboration, how their respective visions could achieve common goals, objectives, and future efficiencies in maritime security.

Before I hand over the floor to them, allow me to just remind everyone that I have these two cards, a yellow and a red card. It has been explained by the Chairman [Mocini], and I hope I will not be using the red card. I request the speakers to observe the decision, as we need to remain on schedule. So once all the five speakers have completed their presentation[s], the floor will be open for the question-and-answer session. Ladies and gentlemen, without further ado, I would like to cordially invite Admiral Paolo La Rosa, the Chief of the Italian Navy, who is representing the Regional Seapower Symposium for the Navies of the Mediterranean and the Black Sea Countries, to present for you. Please, Admiral.

Admiral Paolo La Rosa, Italy:

Sea World, Orlando, Florida. Have you ever been there? I was there this weekend. Like a child, I admired that amazing celebration of the ocean and I could have a good idea of how our realities are connected to the sea.

There are many different viewpoints among us, but one common insight: anytime, anywhere, anyhow, the sea's a driving force of civilization, prosperity, and social development.

We sailors are well aware of the prominence of the sea, specifically for its impact on security, stability, and peace. It is, therefore, our mission to endorse the importance of a sea-centric perspective of the world, thereby rejecting sea-blindness, whose dangers have always [been] evident through history.

A well-suited, sea-centric approach needs to be supported by proper initiatives: several of them are already in place quite effectively, mainly regionally focused. Our challenge today, besides stimulating new initiatives, should therefore be to develop their connectivity though global partnership among all international actors involved. For the evolution of individual, regional initiatives into connected global

systems, I acknowledge the crucial role of the International Seapower Symposium, [for] which I wish to thank Admiral Roughead for sponsoring and Rear Admiral Wisecup for organizing with so many distinguished colleagues and friends from so many navies, to whom I address the best respects on behalf of the Italian Navy.

On alternate years, since 1996, the Italian Navy biannually hosts in Venice a Regional Seapower Symposium and now a consolidated venue for the naval community of the Mediterranean and Black Sea region.

Several extraregional players also attended the last two editions of the Venice Symposium, enhancing its focus on the wider Mediterranean, a region whose strategic environment is characterized by instability factors and impending threats, among which I would like to recall terrorism, illegal migration flows, piracy, and other criminal activities. In terms of outcomes, important results have been achieved by developing a regional network for Maritime Domain Awareness. I refer to the Virtual Regional Maritime Traffic Center (V-RMTC) conceived in 2004, fully operational since 2006, [and] currently supported by twenty-nine navies worldwide.

The system is based on a flexible model, also applied to subregional and bilateral contexts—such as the maritime dimension of the Five Plus Five [5+5] Initiative, focused on the central-western Mediterranean; the ADRION Initiative [the Adriatic-Ionian Initiative, the AII], focused on the Adriatic and Ionian basins; and the Italian-Lebanese network—[and is] quite useful to the United Nations Maritime Task Force operating in the eastern Mediterranean.

Further partnerships for MDA are on their way to establish a major community with countries in the Gulf region, along with the development of a maritime dimension of the Eight Plus Six [8+6] Initiative. All these effective initiatives provide satisfactory evidence of a strong dependence of our countries [on] the sea, adding credible answers to the need of a sea-centric approach for global security through regional initiatives. Now, there is more to these initiatives that we need to promote by fostering their interactions through the development of their global connections. With this in mind, during the 2007 session of the ISS, I launched the idea of families of regional networks to be federated for global maritime data sharing. On the results achieved by the V-RMTC and its regional basis, I offered to sponsor a new project then named as Trans-Regional Maritime Network (T-RMN). The year 2008 was focused on assessing its technical feasibility, which was discussed in Venice by demonstrating the V-RMTC's compatibility with the Brazilian system SISTRAM, the Singaporean OASIS, and the Indian MSIS. During 2009, much effort has been put into the definition of a legal framework for the T-RMN, through the agreement of a dedicated operational arrangement.

This document has been already been approved by nineteen out of twenty-three members in the V-RMTC wider Mediterranean community, plus two of our three extraregional partners. This makes me confident [we will] readily achieve general "consensus" from all members already involved, following an "inclusive approach" that avoids [the possibility] that somebody may feel excluded from such a successful process.

It's a matter of willingness to do it, not a matter of time, although I would say that the sooner we do it, the better. This is the message that I would like to leave with the global maritime community. It's about the importance to leverage on regionally

focused initiatives as a primary way to develop global systems. It's about the T-RMN, conceived to bridge regional initiatives: the very first tool already providing internal interoperability evidence to the theme of this panel. Thanks to its federative approach to global connectivity, the T-RMN merges legal and operational building blocks by avoiding complex, overarching models.

Following this concept, I believe the regional dimension is the appropriate context to effectively develop basic cooperation. The same cooperation gets into the global dimension by linking regional MDAs to meet the dynamics of maritime traffic and threats. As a matter of fact, a merchant vessel may depart a region, sail through another, and end up in a third one. Similar cross-regional considerations apply to maritime threats and operations.

In addition to the primary task of defending the maritime interests of our countries, our navies can therefore take a proactive role in contributing to the international community through cooperative activities in the framework of peace support, disaster relief, and humanitarian operations.

The ongoing coordination effort to counter piracy in the Gulf of Aden is the best demonstration of this positive attitude, as well as of the existing scope for improvement.

I would like to conclude by highlighting that, when it comes to global security and peace, we should all be convinced that cooperation is key to overcome hurdles. In this light, the International Seapower Symposium, which I consider the driver of the regional seapower symposia flourishing around the world, can provide true insights for regional activities. I therefore look forward, with much interest, to the outcomes of our works, to better tailor the Venice Symposium, which is already scheduled from the nineteenth to twenty-second of October, 2010, another chance to promote a sea-centric approach in our common endeavor to global security, stability, prosperity, and peace. Thank you.

[Applause]

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you, Admiral La Rosa. I think being soccer world champion, you don't require additional time to finish a game, as he is capable [of finishing] within ten minutes. Thank you.

During the ten-minute presentation, Admiral La Rosa mentioned a few very interesting points. Sea-centric, you mentioned, elaborating on V-RMTC, the Virtual Regional Maritime Traffic Center, while also mentioning about the newly federated T-RMN. RMN stands for Royal Malaysian Navy, that's where I come from; but actually in this regard, T-RMN stands for Trans-Regional Maritime Network. He also spoke about a wider Mediterranean community, about expanding it to two or three other regional, extraregional, partners; and in his concluding remark, he mentioned cooperation and he was just echoing what Admiral Roughead had just mentioned earlier, that cooperation is key to overcoming hurdles.

Thank you, Admiral La Rosa.

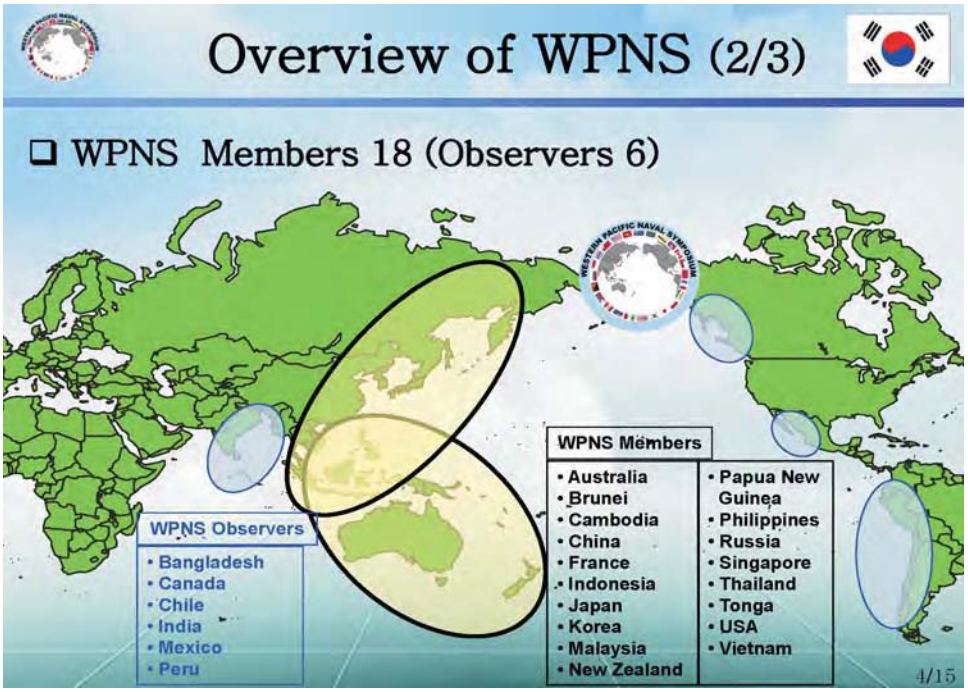
The next speaker will be Admiral Jung, the Chief of Naval Operations of Korea. He is going to talk on initiatives that have been taken by the Western Pacific Naval Symposium towards bridging regional Maritime Domain Awareness. Please, Admiral Jung, you have the floor now.

Admiral Ok-Keun Jung, Republic of Korea:

Honorable CNO Roughead, my colleagues, and all the CNOs from all over the [world], commanders and distinguished guests, thank you very much and nice to meet you all. I am Admiral Jung Ok-Keun, the Korean CNO. It is a great pleasure to meet you all at the U.S. Naval War College. For the next ten minutes, I would like to brief you on the results of the plenary of the 2008 Western Pacific Naval Symposium (WPNS), which was hosted by the Korean Navy.

Here is the order of my briefing: first, the overview of WPNS, then the plenary of the 2008 meeting, and then conclusion.

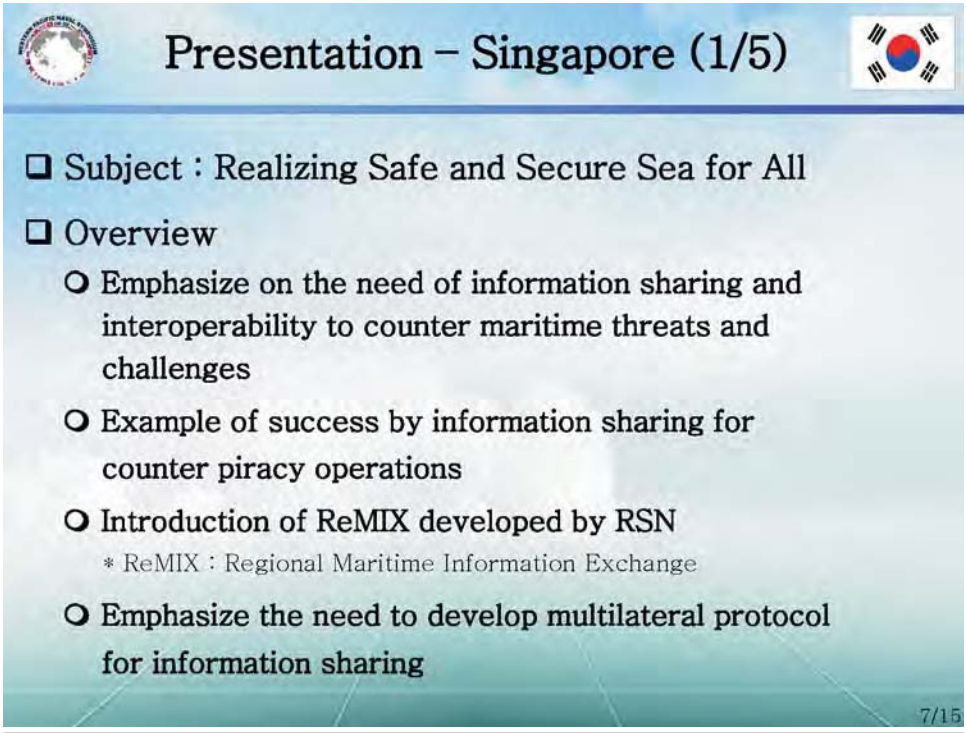
WPNS is a multilateral naval cooperation scheme among Western Pacific navies to enhance cooperation in maritime security. The plenary is every two years for CNO-level officers, and a workshop is every year for staff-level personnel. For the history of the WPNS, in 1987, during the Ninth ISS, the chiefs of the Western Pacific navies agreed to hold biennial meetings. In 1988, the first WPNS plenary was held in Australia, and in 2008, Korea hosted the Eleventh WPNS plenary.



For the current membership of WPNS, we're about a total of eighteen countries, including Australia, and the current status of total membership is as you can see on the slide, and then there are six observer countries, including Bangladesh. Now, the key activities of the WPNS so far: The WPNS charter and doctrine were adopted in November 2000. We described the purposes of the WPNS, the rules and responsibility of the member countries and observers, and we built the Malacca Strait Joint Surveillance System. We have also been conducting MCMEX [mine

countermeasures exercises] and DIVEX [diving exercises], also humanitarian assistance and disaster relief tabletop exercises [HR/DR TTX]. We are also developing ReMIX, which is hosted by Singapore, and, in Australia, we are developing multilateral simulation exercises. Other than this, we are holding various seminars for maritime security cooperation and building a human network.

Next are the results of the WPNS plenary, 2008. The 2008 WPNS plenary was held in Korea on October 8, and sixty-three delegates from twenty-three countries participated. They analyzed the activities of the past two years and discussed the action plans for the next two years. Singapore, Indonesia, Japan, the United States, and Australia made presentations and led the discussions. Details of these will be explained on the next slides.



The Singaporean Navy made a presentation on realizing a safe and secure sea for all. They emphasized the need for information sharing and interoperability to counter maritime threats and challenges. They also introduced examples of success cases through information sharing during counterpiracy operations. They introduced the ReMIX, which was developed by the Singaporean Navy, and they emphasized the need to develop multilateral protocol for information sharing.

The Indonesian Navy introduced Integrated Maritime Surveillance System [IMSS], the purpose of which is to build C4ISR [command, control, communications, computers, intelligence, surveillance, and reconnaissance] and maritime security. This includes coastal surveillance and ship surveillance systems. In the

Presentation – Indonesia (2/5)

- Subject : Introduction of IMSS in Malacca Strait
- Overview
  - Purpose : Safeguard Maritime security with Modern C4ISR
  - Build Coastal Surveillance (12) + Ship Surveillance system & Navy and Agencies cooperation
  - Future plan
    - Establish Exercises & CONOPS
    - Develop rapid reaction system

8/15

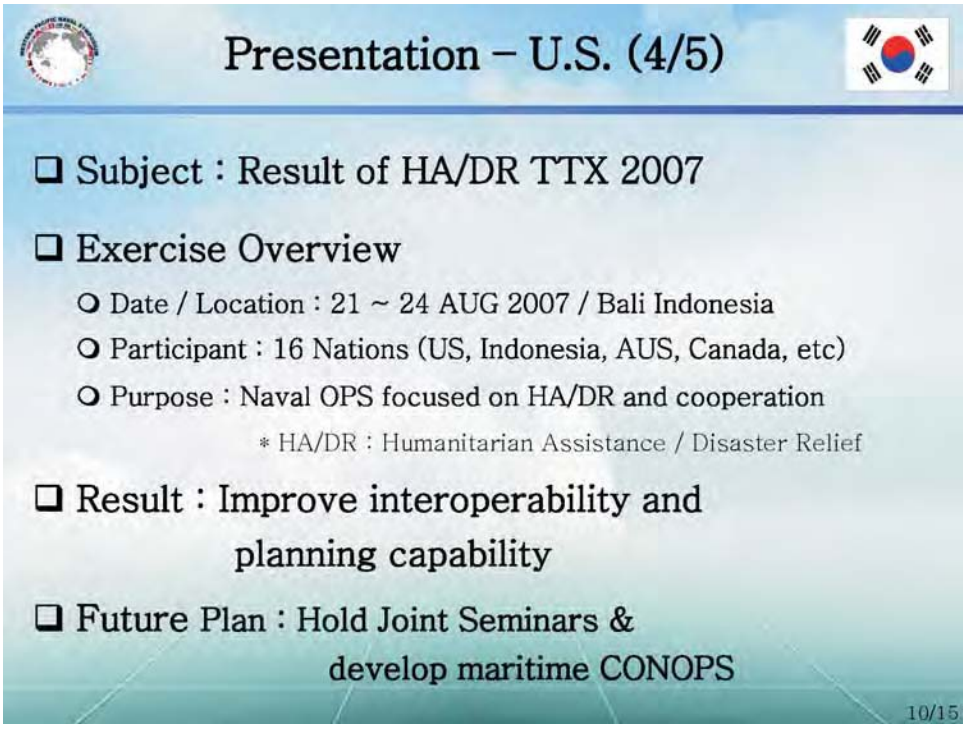
Presentation – Japan (3/5)

- Subject : Exchange Program for Next Generation
- Overview
  - WPNS SONG
    - * SONG : Seminar for Officers of the Next Generation
    - For CDRs and LCDRs
    - Theme : Maritime security Asia-Pacific, Leadership
  - Ship Rider Program (SRP)
    - For LTJGs, Ensigns and Midshipmen
    - Program : Pacific ↔ Indian Ocean basic navigation

9/15

future, [the] Indonesian Navy will establish exercises and CONOPS [concepts of operations] and develop a rapid-reaction system.

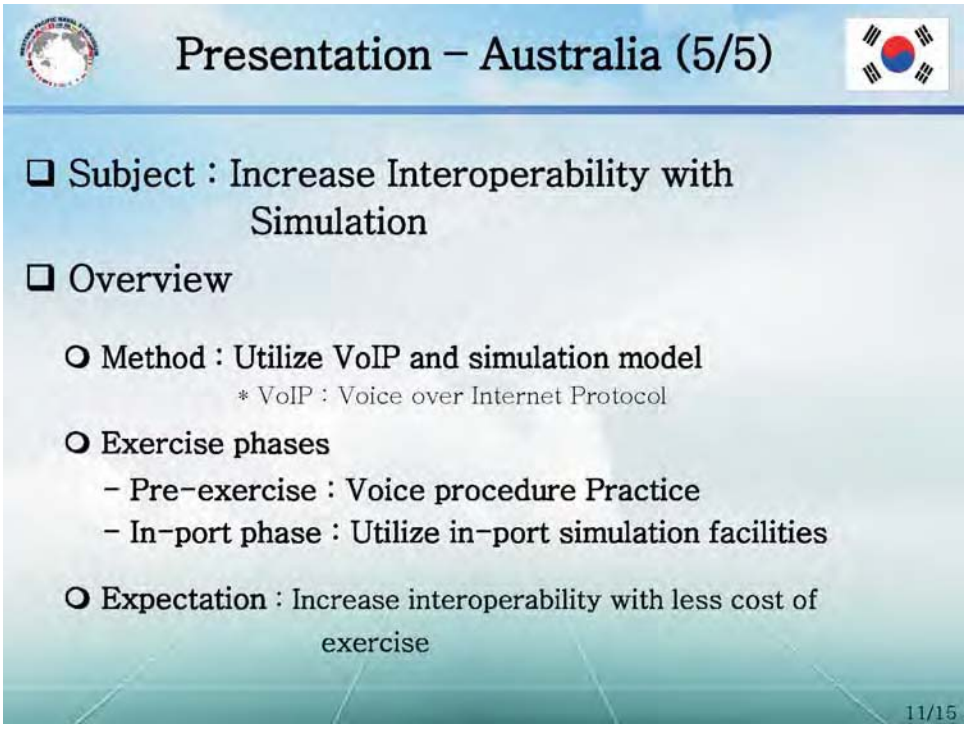
During the Japan Maritime Self-Defense Force presentation, they emphasized the exchange program for the next generation, as they introduced the SONG, the [Seminar for Officers of the Next Generation], and the SRP [Ship Rider Program]. The SONG is for the commander- and lieutenant commander–level officers getting together to talk about leadership and maritime security in the Asia-Pacific region. The Ship Rider Program is for lieutenants junior grade, ensigns, and midshipmen.



The U.S. Navy introduced the results of Humanitarian Assistance/Disaster Relief (HA/DR) Tabletop Exercise 2007, and emphasized the role of navies and mutual cooperation during the HA/DR operations. As a main result, they noted improving interoperability and planning capability. The future plans, they said, will include holding joint seminars and developing maritime CONOPS.

The Australian Navy presentation discussed how to increase interoperability with simulation. This method is using a voice over Internet protocol (VoIP) simulation model amongst WPNS member countries. At the pre-exercise level, they'll use voice procedure practice and, during the in-port phase, they'll use in-port simulation facilities. As a result, they will be able to increase interoperability with less cost than that of an exercise.

The various action plans agreed upon during the 2008 WPNS plenary:



- The Australian Navy will talk about WPNS support for having simulation interoperability,
- The Canadian Navy will talk about member and observer applications,
- The New Zealand Navy will talk about the senior petty officer programs,
- The Korean Navy will come up with Joint Research Initiatives on "Building Mutual Cooperation Systems" and "Developing Effective Information Sharing Systems,"
- The Singaporean Navy will carry out the development of the SOP [standard operating procedures] for the ReMIX Information Sharing,
- The Singaporean and Indonesian navies will jointly host MCMEX and DIVEX in 2010, and
- The U.S. and Singaporean navies will jointly hold HA/DR TTX.

This is a total of seven tasks agreed upon and to be carried out.

The twelveth plenary will be held in Australia in the year 2010, and the thirteenth plenary will be held in Malaysia in the year 2012. The major action plans up until the year 2010 are, as you can see, on the slide.

So far, as I said, WPNS member countries agreed on the necessity of cooperation to counter transnational threats through various activities, and we prepared practical, realistic measures for cooperation of regional navies, allowing us to create greater consensus on the pending maritime security issues, and further contributed to regional peace and prosperity.

Thank you very much.

[Applause]

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you, Admiral Jung. Another world-class performance all completed within ten minutes. Thank you.

Admiral Jung, in his address, elaborated on the plenary session of the Eleventh WPNS, held exactly one year ago in Korea. He also mentioned about the agreements, agreed by all the eighteen members participating, plus six others, and he stressed three key issues.

They all agree on the necessity for cooperation to counter transnational threats. They also agreed to develop practical, realistic measures for cooperation of regional navies. By doing these two activities, they will build consensus on maritime security issues and will contribute to regional security and peace. Thank you, Admiral Jung.

As the next speaker we'll have Rear Admiral Aland Molestina, the Chief of Navy for Ecuador. He's representing the Inter-American Naval Conference and will share his views on how to bridge regional Maritime Domain Awareness. Please, Admiral Molestina.

Rear Admiral Aland Molestina, Ecuador:

Thank you, Admiral. It is a pleasure and a privilege to be here in my alma mater, the Naval War College, and to be able to share in this International Seapower Symposium with all of you and talk about the issues that concern us all.

Last year, we had the Inter-American Naval Conference in Ecuador and its main issue was education. We didn't directly deal with Maritime Domain Awareness and that is why I am going to show you how much we've progressed in this field of MDA.

First of all, what we have heard here from our distinguished colleagues and friends is that the sea is an environment of universal use. It joins us all and more than 90 percent of goods that are traded in the world use the sea as their road. But just as the sea has been a common element to bring countries together, I also believe it constitutes a series of challenges to which we must formulate solutions, and that is why we are here today. I will cite an example.

If a cargo ship with 120,000 tons of oil travels from one port to another, first of all, we must be certain that the cargo meets all the necessary standards upon its departure, that the ship was built with all the standards that will guarantee its safety, and that's not the end of it. Throughout the transit the ship can be subject to bad weather and what happens if this ship was to be shipwrecked? All its cargo would spill out into the ocean and have adverse effects on countries that we may not have anticipated.

To add to all these problems, we now have an increase in piracy. What happens if pirates decide to hijack the ship? Perhaps that will cause energy shortages in the country of destination. All this leads us to conclude that it is high time we harmonize many of the activities that are already in place. The sea powers that we represent here have always been devoted to securing maritime sea lanes, yet trade must be focused with a greater awareness of the maritime domain. I believe that the role of maritime authorities becomes of utmost importance as we now have the need to become more aware of what happens throughout the sea so we can ensure the security of maritime routes. I ask your forgiveness, because this presentation isn't in English, but I also would like to highlight a number of other elements that haven't kept up the pace with globalization, such as technology. Technology allows us to make decisions as soon as we have the information. Currently, this can be achieved in real time. In this context, terrorism and drug trafficking fund activities that now compete with traditional threats in this new world order where regional economic blocks are predominant and we need to change our view to a multidimensional context where cooperation among all states of the world is necessary.

Here, we have a slide with the new threats in the region, all of which have been classified by the Organization of American States. We can see that there are a number of new ingredients, such as terrorism, organized crime, money laundering, pollution, illegal immigration, smuggling, climate change, and many others, but all this happens within an environment that is increasingly difficult to control. That environment, which is the vast sea and the vast coastlines of each country, is why we need to join efforts to exercise oversight in the sea.

This is the definition that is outlined by the United States government in 2007 on Maritime Domain Awareness, which applies to all other countries as well. It is defined as "the effective awareness of everything related to the maritime environment that could have an impact on human and material security, the economy or the environment in the United States" (or any other country, as we have mentioned before). Within this context, Maritime Domain Awareness can be translated into the means to enable security and protection that could be applicable to all states. I believe it is our joint responsibility, through the assurance of those communication lines, which will enable us to control all activities on the seas.

How have we contributed and [how do we] continue to contribute to this control of the maritime domain? This is something that was mentioned before by my

INICIATIVAS REGIONALES PARA LOGRAR MDA REGIONAL

JIATF-South: Cooperación Voluntaria Internacional primordial para unidad de esfuerzos. Cuadro Operacional Común. CNIES

INICIATIVAS REGIONALES PARA LOGRAR MDA REGIONAL

- Acuerdos USA-Panamá y Belize.
- Convenios entre Autoridades Marítimas.
- Establecimiento de MSOC entre Canadá y USA
- Asociación de Prosperidad y Seguridad (SPP): Canadá, USA, México.
- COMBIFRON: ECUADOR, COLOMBIA, PERÚ
- CPPS
- IOCARIBE: Prevención de eventos climáticos.
- Desastres Naturales: Tsunamis (PTWC), elevación del nivel medio del mar, contribución COI, OMM.
- Acuerdo de Viña del Mar
- Carta Batimétrica Regional: Colombia, Ecuador, Perú, Chile con contribución de IOCARIBE
- Centro Marítimo Internacional Contra el Narcotráfico (CEMCON), sede Colombia
- SAR (Convenio Internacional de Búsqueda y Salvamento Marítimo de 1979; Manual IAMSAR): Memorando de entendimiento Autoridad Marítima, COGUAR USA, regiones SAR no basadas en fronteras marítimas (2005).
- Red Operativa de Cooperación Regional de Autoridades Marítimas de Sudamérica (ROCRAM).
- Patrulla Antártica Combinada Chile – Argentina
- Actas Operacionales Binacionales
- Resultados de CNI sobre Interoperabilidad e Intercambio de Información

colleague from the Korean Republic. I believe we all have capabilities for C4ISR. Through all this, we have a gathering of maritime data, but also other types of data, because we're not limited to things that are happening in the sea. We also have information from the ports. Next we correlate that data, we move on to analyzing and interpreting the data, and then we assess the intelligence. This information should be provided to all countries or agencies that so require it.

What is the problem? The problem is that each country is undertaking individual or bilateral efforts, and perhaps we are lacking in our capability to interact internationally in order to gain more awareness of the maritime domain and to act in a timely fashion against any challenge that is deemed global. So what we want to have, ideally, is a regional operational framework. This is the cornerstone of the MDA, which is nothing more than having regional information to determine a course of action when facing potential threats. And here, I emphasize that we need joint work to compile, analyze, present, and disseminate the information; in other words, cooperation and international integration [are] necessary.

This is all based on two aspects that have been mentioned before. First of all, trust. I believe that we all share common threats and we must be aware of this. Therefore, we should all contribute and collaborate with each other in a framework of trust so we are willing to share information and undertake timely measures. Obviously, we must take advantage of opportunities and show our will. This symposium is a show of that will, of the willingness that the countries have to cooperate.

What have we done in the Americas to use this information and undertake timely measures to face the threats? I think there are a number of actions that have been taken, but most of them are bilateral. We need to strive for more multilateral action. The main initiatives are the JIATF [Joint Interagency Task Force] South, CNIES [Cooperating Nations Information Exchange System], the communications network, and SIANC [Specialized Inter-American Naval Conferences].

Here in this slide [on previous page], we show all the countries that are part of this network of naval communication; I believe this should be the starting point for future communication-sharing endeavors. Currently, it's working bilaterally, and I believe that a lack of trust leads us to shy away from sharing all the information that we have. In order to achieve full interoperability—UNITAS and PANAMAX are clear examples of how, for a long time, the Americas have endeavored in these joint exercises to overcome any challenges that we might face in reaching interoperability. I believe that's going to be an issue that will be covered in the following panel.

Here, we have a long list of agreements [on previous page], which lead us to Maritime Domain Awareness and, in the interest of time, I will only mention a few.

There is the MSOC [Marine Security Operation Center] between Canada and the United States. There is also the Security and Prosperity Partnership [SPP] between Canada, the United States, and Mexico for facing joint threats. There are other agreements for meteorological information, others for tsunami alerts, and others for creating sea charts with accurate bathymetric data.

We also have CONVEMAR [Convención de las Naciones Unidas sobre el Derecho del Mar, or UNCLOS, the United Nations Convention on the Law of the Sea], the sea convention that deals with drug trafficking and the protection of the

maritime environment. In other words, there are a number of instruments from which we can obtain information.

I will make some final remarks, because I've just been notified by my friend, Aziz, that I have two minutes left. I should point out that Admiral Jung in his presentation said that he would yield two minutes to me and that the game could go into overtime by two minutes. Nevertheless, these are my final remarks.

Safe maritime routes are essential to peace and prosperity in the region. The sea is the route for transit and trade of resources upon which our economies depend. The seas and the resources that move over them must be protected. The economic crisis, the rise in unemployment, immigration, and illegal activities are all critical factors in the role of policing the seas.

Transnational threats are a risk to maritime safety. It is necessary to unify our efforts to coordinate actions and to exchange information without infringing upon national sovereignty to identify, monitor, and intercept all those transnational maritime threats in a way which is consistent with national and international legislation. To this end, it is necessary to continue to strengthen current agreements. What direction should we move it towards? We need to develop a common operational framework. We need to integrate and share information between the countries through their operation centers. Is CNIES enough? I believe not.

We need more information and joint operations within the framework of the joint operations that already take place. I believe that it is necessary to support countries that have insufficient development in technology in order to contribute to situational analyses.

In sum, we need more will, more trust. This is a problem that affects us all. I believe that within the context of each state, we have a territory that is sovereign to us, but the sea belongs to us all. It deserves our cooperation. Thank you for your attention.

[Applause]

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you, Aland. Thank you very much for keeping to the time. He is my good friend; we were together here at the Naval War College in 1995–96. We have another guy, Admiral Álvaro Echandia, please stand up. We are together in the NCC Class of '95–'96. I think he kept good time. Aland, thank you.

In his fifteen-minute presentation, Admiral Aland Molestina mentioned the role of maritime authorities has been increasing in its importance. He mentioned technology, how technology must be optimized to allow us to make some real decisions to counter maritime threats, the many maritime threats mentioned. He also mentioned the existing initiatives, CNIES, UNITAS, and also PANAMAX. He also [mentioned] in his concluding remarks that the CNIES [is] not enough. In his own words, he proposed that more efforts towards information sharing and joint operations must be conducted among the Inter-American Naval Conference members. Thank you, Admiral Aland Molestina.

Next, I would like to invite Vice Admiral J. Mudimu, the Chief of Navy of South Africa. He is going to speak representing the Seapower for Africa Symposium, and he will share his views on how to bridge regional Maritime Domain Awareness and he will give his own perspectives on how well they have done. Please, you have the floor.

Vice Admiral J. Mudimu, South Africa:

Admiral Roughead, distinguished guests, I'll only rise just for a minute as Admiral Teuteberg, my Chief Director of Maritime Strategy, will do the presentation. But I'm rising, Admiral, to say since 1969, like the poet W. B. Yeats said, we can see "a terrible beauty born." The fact that today—so many of us committed and believing in one another and believing in the freedom of the seas—we have come once again in Newport to author this new chapter in the true spirit of our forebearers. Admiral, also allow me to say happy birthday to the whole college for having turned 125 years old. Members, I give you Admiral Teuteberg to do the presentation on behalf of the Chief of the South African Navy. Admiral Teuteberg.

Rear Admiral Bernhard Teuteberg, South Africa:

Admiral Aziz, Admiral Roughead, Admiral Wisecup, distinguished flag officers, chiefs of navies, other officers, colleagues and, indeed, friends. It is really an honor to be speaking on behalf of the South African Navy and, perhaps, on behalf of the Seapower for Africa Symposium.

I use this definition, this quote, from Admiral Gary Roughead. "MDA is where it all begins. We cannot conduct the operations that we must if we don't have a good sense of what is out there, moving on, about or under the sea."[1]

1. *Rhumb Lines*, August 2007.

And it reminds me of an occasion not too long ago when we were standing in the middle of the bush in South Africa [after] searching for lion, having found lion, and then [watching] the sun set over the plains, having left our game vehicles, [and] enjoying refreshments. Admiral Roughead decided that the better part of valor would be to create a laager, therefore—to create a circle of people facing outward—whilst we were having our refreshments, so that we could warn each other of the threats faced [from] lion in Africa. And I really understood that Admiral Roughead understood what it meant to have domain awareness.

MDA is all about generating actionable intelligence, which is the cornerstone of success for maritime law enforcement operations. It is really about understanding the intent of the blip on the radar. It's not the blip on the radar; it is what that blip actually represents. From an African perspective, we are slowly moving in that direction, but our responses to issues of terrorism, piracy, [and] people and drug smuggling, are not harmonized as yet. However, there are advantages that cannot be ignored. This, if we do this in partnership with each other, will reduce our requirement for platforms and sensors at sea. It spreads the responsibility amongst many and in this instance small navies, in fact, can have an equal status.

So what is this MDA? The focus of MDA differs substantially from the narrow naval requirement to provide task force awareness, to a much broader requirement of providing security for the full spectrum of maritime activities, ranging outward from the arteries that link the harbors with the sea and onward to the extent of the EEZs [exclusive economic zones] and onto the high seas.

In Africa, MDA is aimed at the strategic level at this stage and focuses in regional and continental integration and the exchange of information to identify emerging threats and allow sufficient time to generate an appropriate response. It must be a joint venture and, it has been said, it must be about partnerships.

What is [important to] Africa with respect to MDA? Africa has vast sea-based renewable and nonrenewable resources that require continuous monitoring and policing. More and more ships are actually coming around the Cape of Good Hope. It is necessary for us to understand the threats that come with this. At the same time, maritime crime, ranging from piracy to illegal bunkering, is still stifling the economic growth and prosperity of our continent and its people.

In Africa, we are following a regional approach. I've used three examples:

- In the Southern African Development Community [SADC], through the Standing Maritime Committee, our aim is to promote cooperation at all levels and the exchange of maritime information.
- In ECOWAS-CONSAC 2009 [Economic Community of West African States—Chief of the Naval Staff Annual Conference] our colleagues in Nigeria are the key player in promoting MDA in the Gulf of Guinea region, the aim being protection of the offshore hydrocarbon resources.
- In EAC [East African Community], Kenya, on the other side of the continent, plays a key regional role with the aim of preventing maritime crime.

The third Seapower for Africa Symposium was held earlier this year in Cape Town, and I must just reiterate that the Seapower for Africa Symposium was, in fact, born here in Newport, Rhode Island, and based on the concept of the Seapower Symposium when the founding fathers—being Ghana, Kenya, Nigeria,

Multi Stakeholder

In Africa MDA involves many stake holders, ranging from:

- Coastal & Landlocked States
- Naval (Military)
- Paramilitary (Police & Coast Guard)
- Other State Departments
- Civilian Role players

Requires both vertical and horizontal integration of data & intelligence across multiple boundaries – complex challenge

7

Africa's MDA Challenges

- ICT – To establish the required information networks
- Limited Capacity - Both in sensors and platforms
- Infrastructure Requirements – Established Regional Maritime Centers
- Mistrust – Build confidence

Patience - MDA will take time to develop

9

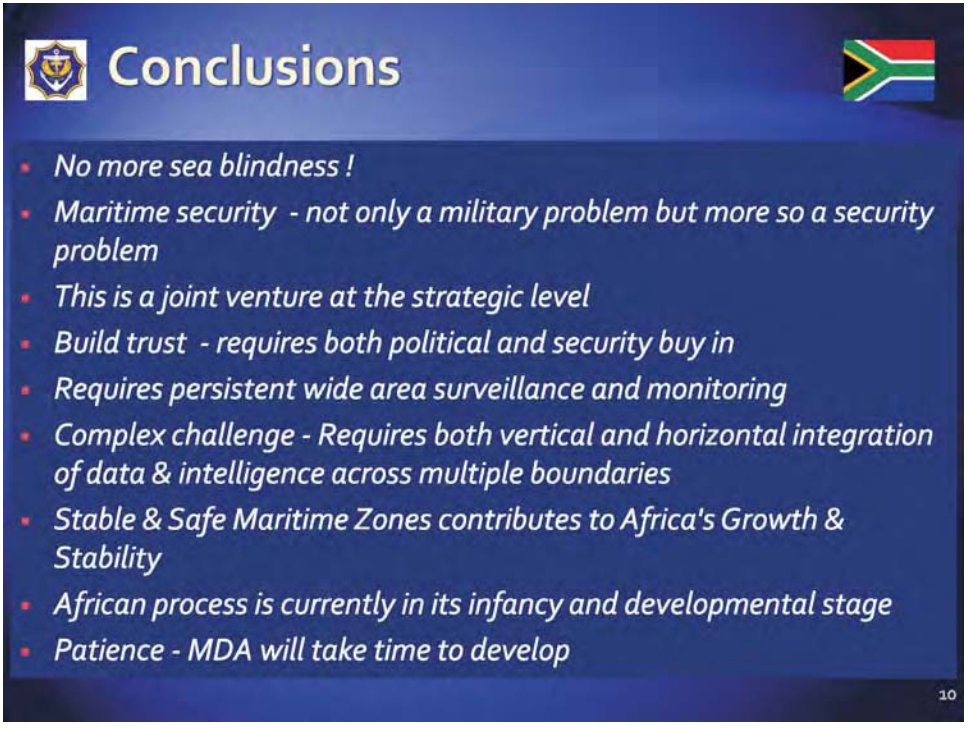
and South Africa—came together and decided that we must do a similar thing for Africa.

We adopted a number of resolutions.

- The need for structured continental and regional cooperation;
- The requirement for continental, regional, and national harmonization of the requirement for platforms, capabilities, designs, technologies, logistics, and information sharing;
- The need for the generation of a comprehensive maritime policy for Africa, which will be discussed next week in Durban by the Ministers of Transport and Defense on behalf of the AU [African Union]; and
- The need for a representative continental working group, in order to address Maritime Domain Awareness.

In Africa, we have many role players and, perhaps, our greatest challenge is the fact that, at the moment, within our own country, there are twenty-four agencies in some way involved in Maritime Domain Awareness; the same in the countries to the north of South Africa. We need to bring all these countries together.

So what are the challenges facing MDA in Africa? First of all, information and communication technology to establish the required information networks, our limited capacity both in sensors and platforms, and infrastructure requirements [are] problems. But, I think above else, having all of that will help nothing if there is distrust, mistrust, between nations and we need to do this in partnership and I think that was really well said this morning. No one can do this alone, and although



there are lines painted on the ocean, which indicate maritime zones, ships do not recognize that when they pass from one zone to the other.

In conclusion—I was very worried about the yellow card because, in South Africa, it means you're off the field for ten minutes—a term which we heard from the Royal Navy at the Seapower for Africa Symposium in Cape Town earlier this year [was] "no more sea blindness in Africa." We need to make our politicians aware of the importance of the sea. Maritime security: this is not only a military problem, but more a security problem—all agencies, all countries need to work together. This is a joint venture at the strategic level. We need to build trust. In order to build trust, we need to work together; we need to walk the path together through common exercises and visits such as these.

It requires persistent wide-area surveillance and monitoring. It's a complex challenge that requires both vertical and horizontal integration of data and intelligence across multiple boundaries.

Stable and safe maritime zones contribute to Africa's growth and stability. The fisheries in South Africa provide work for 42,000 people, but that only accounts for 50 percent of the fish caught, because the other 50 percent is illegally caught in our country. The African process is currently in its infancy and developmental stage but with a full will and determination to progress from here and learn from other nations. We need patience; MDA will take time to develop in Africa.

We [who] come from Africa understand that we must face our own lions collectively and that the only common enemy we should be facing as seafarers is the inherent dangers of operating on, in, under, and above the sea. Thank you very much.

[Applause]

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you, Rear Admiral Teuteberg, representing Admiral Mudimu. In his presentation, he outlined the challenges faced by the Seapower for Africa Symposium and, during the final minutes of the presentation, he listed four MDA challenges faced, again, by the Africa Symposium. Namely;

- ICT [information and communication technologies], the need to establish the required information network;
- The limited capacity;
- The requirement for infrastructure; and also
- The requirement to build confidence and trust, which has been amply highlighted this morning by Admiral Roughead.

Once again, thank you, Admiral Mudimu.

So we will have to go next to, the final speaker of the first panel presentation. I would like to invite Admiral Nirmal Verma, the Chief of Naval Staff of the Indian Navy, and he will be representing the Indian Ocean Naval Symposium. He will deliberate on initiatives in support of partnership toward bridging regional Maritime Domain Awareness. You may have the floor.

[Applause]

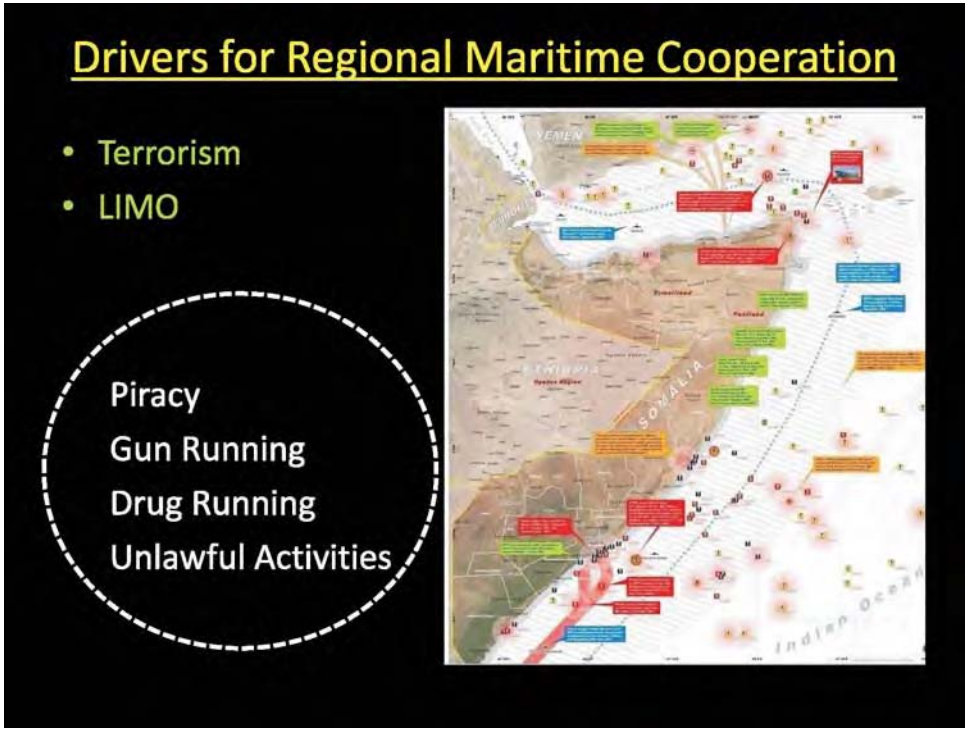
Admiral Nirmal Verma, India:

Chiefs of Navies, distinguished delegates, ladies and gentlemen. It gives me great pleasure to be here, to share my thoughts on initiatives to bridge regional Maritime Domain Awareness under the banner "Connecting Navies, Building Partnerships."

At the outset, I would like to thank the International Seapower Symposium and Admiral Gary Roughead, CNO, United States Navy, for giving me this opportunity to interact with eminent strategists, academicians, and my esteemed professional colleagues from other nations. The world that we know today is very different from the one that it was just a decade back. In many ways, it has become a lot more unpredictable and uncertain. Amidst this twin paradigm of unpredictability and uncertainty, fundamental shifts are taking place, not just in the Indian Ocean region [IOR], but globally. This is true not only of the present financial condition, but equally of the complex security situation. As is the case of the financial situation, which necessitated a global response, the security situation is no different.

The Indian Navy, in this past decade of unpredictability and uncertainty, has worked towards building bridges of friendship across the oceans. By initiatives I have included MILANs, or get-togethers in Indian parlance, at Port Blair in the Andaman and Nicobar Islands, which are attended by our neighboring neighbors, including the Southeast Asian navies, and bilateral interactions at sea with many navies.

A major step taken in this direction has been all navies of the Indian Ocean region coming together and forming the Indian Ocean Naval Symposium, or IONS, which has the aim of fostering regional cooperation in the maritime domain. Let



me put forth the drivers for this regional maritime cooperation. Trade and interdependence, undoubtedly, are the first driver that catalyzes regional maritime cooperation. The Asia-Pacific region is home to some of the fastest-growing economies in the world and, consequently, economic factors are central to this region's security concerns.

The second is a need for energy. The continuous and assured supply of energy resources for both the developed and developing nations in this region needs no emphasis.

Thirdly, many of the sources of terrorism, with ramifications to the Indian Ocean region and beyond, lie within the Indian Ocean region. Zones of instability and violence do exist in the region. Tackling them requires not only some amount of hardball, but even a greater exercise of softball. The recent past has also highlighted the issues of proliferation, both nuclear and missiles, a concern that is vital to the world as a whole. WMD [weapons of mass destruction] proliferation must be viewed seriously and holistically. At times, proliferation has had a maritime dimension and stoppage of this activity requires a multilateral maritime effort.

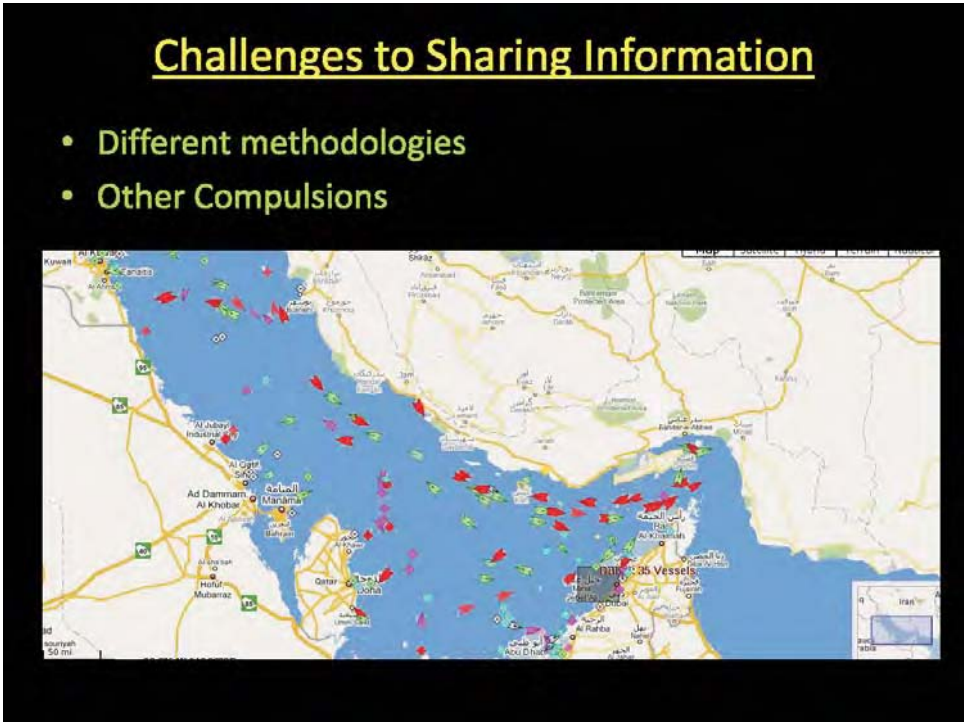
Fourthly, low-intensity maritime conflict, waged by nonstate actors, can also be tackled better through a multinational response. With the thinning of the line between terrorism and other illegal activities, the scenario at sea is even more complex. Unlawful activities, like piracy, armed robbery, or gun and drug running, can get intertwined with terrorism.

In the coming years, cooperative use of maritime forces would be required to counter the challenges posed by such threats. And, lastly, we must also uphold our

responsibility to assist in United Nations–sanctioned operations as and when they are authorized. Ladies and gentlemen, awareness of entities and happenings within the maritime domain is a key to effective operations by any navy, and this audience, more than anyone else, understands this.

The Indian Ocean Naval Symposium also recognizes this fact, and has taken the first steps to address the issue of Maritime Domain Awareness, as part of its regional maritime cooperative initiatives. In years to come, it is hoped that IOR navies would collectively execute these solutions.

Maritime Domain Awareness is an all-encompassing term that involves being cognizant of the position and intentions of all actors, whether friendly, hostile, or neutral, in the constantly evolving maritime environment and in a defined area of interest. The gaps in the knowledge of all awareness available at various levels [are] sought to be filled by surveillance and sharing of information. Information on ship movements can help provide early detection of threats. Information on fishing fleets and craft engaged in usual maritime activities and their confirmed presence at a location also helps in clarifying picture compilation and providing early warning of suspicious activity. On a constant basis, MDA also enables more efficient coordination of search and rescue. MDA is critical for effective decision making at all levels of operations. Though, at each level, the nature, application, and modes of collection differ. At the strategic level, MDA demands awareness of the longer-term intent and prognosis that leads to threat evaluations and likely operational-level countermeasures. Domain awareness, at the operational and tactical levels, encompasses activities related to generation and synthesis of an integrated picture,



enabling naval forces to become more effective and efficient in encountering malevolent players.

I'm sure you would agree with me that the principal purpose of bridging regional Maritime Domain Awareness is to generate actionable information. No single navy can efficiently bring out actionable information over the large expanses of sea, and hence, there is an indubitable need for cooperative engagement and for generation of a common operating picture.

However, sharing of information in the maritime domain has its own challenges. In a sense, this symposium and IONS within the IOR are important waypoints toward building a mechanism to generate that common operating picture. A number of bilateral, multilateral, or other arrangements already exist and synergizing them is the need of the hour. Technically, a single common architecture to support sharing of information for Maritime Domain Awareness needs to be developed to enable it to be universally effective. This is a major challenge, given the security issues, national sensitivities, and varying levels of technological capabilities in individual navies.

Today, many navies have put into place their own mechanisms to build credible information architectures for their own use. Some of these have integrated with each other with patches, if you like, so that information can be exchanged. To begin with, this is one method that can be expanded on.

Presently, much of the information being exchanged is streaming AIS [Automatic Identification System] data, which is based on the concept of target coordination. While this is the first logical step in enhancing Maritime Domain Awareness, the seafaring community would have to soon take the next steps. What could they and should they do to bolster the lookout capabilities and nonlethal, onboard countermeasures? Merchant mariners would do well to look at the waterline as often as they do the bottom line.

Soon, we would need to progress beyond the streaming of AIS data on merchantmen at sea, to integrating our individual ISR [intelligence, surveillance, and reconnaissance] efforts on a collective architecture. Such an effort over time could then be used to overcome the scourge[s] of terrorism, piracy, drug running, and human trafficking.

Another issue that is intertwined with MDA is the freedom of the seas. All of us here are committed to maintaining freedom to use the seas. In a manner of speaking, the level[s] of security and freedom are inversely related, as far as the offer of collective protection is concerned. Seafarers would, therefore, have to accept the contradictory aspects. Finally, as we put into place structures for regional and extra-regional Maritime Domain Awareness, issues of sovereignty of nation-states should not be overlooked. In the Indian Ocean region, as part of the IONS initiative, this issue is considered important so that all nations, irrespective of the physical dimensions, geographic location, or size of the navies, would be equal stakeholders in all our efforts. It is with this intent that the next chair of the IONS, the UAE [United Arab Emirates] Navy, will host a conclave early next year on a most appropriate theme: "Malevolent Non-state Actors and Non-traditional Security Cooperative Solutions for the Indian Ocean."

In sum, at the first instance, we need to facilitate not just bilateral arrangements but regional or even global ones with the objective of enhancing MDA so that gaps

in information are eliminated. At the same time, data-sharing linkages between transregional data centers, particularly between the Asia-Pacific, Black Sea, Mediterranean, American, and the Indian Ocean regions, would be the next logical step.

Even as we attempt to put into place such MDA networks, nations without assets, such as ground-based radars or the necessary infrastructure to share information, would also have to be brought on board as equal stakeholders. This is true not only of the Indian Ocean region, but is a reality reflective of all regions of the world. The paramount question therefore would be how do we solicit support for building a single transnational MDA network, thereby improving global maritime security. A possible solution would be through efforts sponsored by the IMO [International Maritime Organization] or United Nations, with all nations, irrespective of their size, being equal stakeholders in this global initiative. Such an endeavor would possibly galvanize the architecture for sharing of information on the maritime domain and put it in place in a relatively short span of time.

In conclusion, I will only reiterate the fact that all these challenges for collecting and sharing of information in the maritime domain need to be overcome. It is bound to happen in the future, sooner rather than later, in the larger interest of seafarers.

As I speak these words, I'm reminded of the days that I sat in this very auditorium, sixteen years back when I attended the NCC in 1992–93, listening keenly to speakers [talk] about common challenges that would confront navies. I have in the audience my close friend and colleague from the NCC Class of '93, Admiral Guillermo Barrera, Chief of the Colombian Navy, and it's really nice to see you in the audience today.

Those days we talked about bridges of friendship between navies. The theme, incidentally, chosen for the Indian Navy's first International Fleet Review in 2001—and, hopefully, this should now lead on to another theme—was "Bridging Regional MDA." As the chiefs on watch and as senior leaders of navies represented here, that should be our hope, as well as our agenda, for a safer world. Thank you.

[Applause]

DISCUSSION

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you, Admiral Verma. In essence, Admiral Verma reiterated the importance of overcoming challenges to sharing of information and the belief that MDA is critical for any decision making and there is a need to develop a mechanism of MDA for the use of regional nations.

Ladies and gentlemen, on behalf of the symposium sponsor, I would like to thank the panel members for providing us with an insight for the way forward in addressing MDA initiatives. Indeed, bridging the regional MDA requires some effort but, as pointed out by the panel, it is not impossible.

Ladies and gentlemen, I believe most of you are eager to seek clarification and discuss or comment on the points raised by the panel members; but, before we start with the question and answer session, I would just like to remind [you] of a couple rules. First, please keep your questions short, within one minute. Secondly, use the microphone in front of your seat and you only will speak when I acknowledge you.

And please identify yourself first. Be short and be brief, because we will have only twenty-five minutes of this session and I believe the session is so important.

With that, I would like to open the floor for the question and answer session. Kindly raise your hands. [Pause] Wow, I think everyone is looking forward to lunch.

Colonel Abdullah Dashti, Kuwait:

Listening to the five speeches, India has got many dimensions and some of these dimensions are nonmilitary. My question is how important to future regional seapower symposia are nonmilitary agents—private sector, NGOs [nongovernmental organizations], meaning civilians—to fill these gaps. Thank you very much.

Admiral Paolo La Rosa, Italy:

I think that it's very important. As a matter of fact, as for the Venice Symposium, we try to integrate all the ideas, the suggestions, which come from different actors, concerning maritime questions. For example, we always invite—and they participate—IMO members, IHO [International Hydrographic Organization] members, and even national agencies, because nowadays, maritime security and maritime safety and are not only military problems but are general problems. That's why I think it's very important to maintain a regional level of symposia, a regional dimension of symposia, because it's much more and much easier to call all these different actors to the meetings and, of course, all these symposia have a driver importance, have a driver role for our activities as military organizations, as institutional organizations. We have always to confront our issues, our positions, our activities, with other members of the maritime community. So I believe that they must be involved, to the extent we can [allow], in our activities. Thank you.

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you. Would any panel member like to add on?

Admiral Aland Molestina, Ecuador:

Yes, indeed, your comments are very correct. In the comments made, it was made clear that problems affecting the sea are multidimensional. In other words, these problems not only have to do with the navies of the world and the utilization of sea power. This, indeed, has already been standardized, and this is what the international community has been pursuing. In addition, we must say that the leaders who are in this room, as well as the countries where we do hold these types of meetings, we tackle these issues in a multidimensional manner, as I said earlier. And to give you an example, and my apologies for using my country again, but we have a serious problem at sea that has to do with oil pollution as a result of fuel smuggling. This is something that the navy cannot combat in and of itself. We have a combined system with the customs offices, with the taxation departments, with organizations that do the actual invoicing, and with the maritime authorities, which in the case of Ecuador, is the navy itself. What I mean to say is that, indeed, this issue has to be approached in a multidimensional way in that you're very right in what you have stated.

Admiral J. Mudimu, South Africa:

Not wanting to be doing overkill on this particular issue, I think the answers provided suffice. But, as the people indicated, there are a number of agencies that are concerned with the issues of Maritime Domain Awareness—there is a department of transport, environmental affairs, all these departments. What is important, though, is that annually we head a type of a conference that involves all stakeholders so that we map out a common strategy for us addressing all these issues. So, it is important that the civilian component and the military are involved, because, in certain instances, the lead agency can become the department of transport. In another instance, the navy becomes the lead department. So it is important that we have an integrated approach towards this issue; and, therefore, the regional seminars are highly recommended.

Admiral Nimal Verma, India:

What I also want to say has been partly covered. It is true, and I think it came out in the presentation also, that there were twenty-four agencies involved, as far as the maritime domain is concerned and, obviously, they all have a stake in it. But, as far as coming to solutions is concerned or tackling the problem, it has to be navy led.

It's only the navy of a nation which can bring these different organizations, which will be pulling in different directions, to work together. So I will say that as a navy, talking of my example, it should be my task to ensure that the twenty-four-odd agencies, which are involved in my country, are brought together, flesh out an agenda, and then we discuss it at the regional level. Otherwise, it might become a problem which is uncontrolled. So the navy should retain the leadership for operations such as this.

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you so much. We shall move to the next question.

Captain Guillermo Jimenez, El Salvador:

This question is directed to Rear Admiral Molestina. Sir, how do you perceive the future of intelligence sharing after the FOL [forward operating location] at Manta, Ecuador, is closed, which is coming very soon?

Rear Admiral Aland Molestina, Ecuador:

Well, thank you for your question. If we remember what has been said, we talked about two basic issues to be able to obtain information. One of them is the will and trust. In the case of the Americas, the official system that we have in place to obtain information up to now is the inter-American network for communication, CNIES. Now, Manta was one of the ways of obtaining information that we had. That information will not be lost, because my understanding is that the U.S., with their planes, will continue their reconnaissance, and they will continue sending the information to an operational center and, based on that trust that I've mentioned, all of us have to share that information so that we can take actions together with the armies, the navies, of our friendly countries.

Admiral Tan Sri Abdul Aziz, Malaysia:

Next question, please?

Admiral Mark P. Fitzgerald, United States:

My question goes to Admiral Verma and Admiral Mudimu. We talked about two different concepts of data sharing. Admiral Verma talked about global data sharing and Admiral Mudimu's presentation was more about regional. When you look at the types of data sharing we have to do, some of it's historical—the number of what kind of ship, when it was built, where it's been in the last few years. Some of it's current, which is what's on the ship, what cargo's on the ship, what people are on the ship. Some of it's type of vessels—some of it's commercial vessels, some of it's a fishing vessel, and sometimes it's a pleasure vessel. How should we bring all of that together? Should there be regional databases where the region shares? Should it be under IMO, as might have been suggested by Admiral Verma, or should it be under some kind of a military-civilian organization that brings us all together? Thanks.

Admiral Nirmal Verma, India:

Well, I'd say that what I'd mentioned was certainly that eventually we must look at a global methodology for getting the answers; but the stepping-stone will be through the regional arrangements because the type of confidence that is required to be built up between players, it is best started at the regional level. An example that comes straight to my mind is the way the Southeast Asian nations have been cooperating. We look at Malaysia, Singapore, and Indonesia because the level of confidence they have in each other is perhaps what contributes to working together and sharing of information. So that, in my view, would be the starting point, and then you go on to a larger area where such information is shared and eventually you have the handshake and go onto a global level.

Admiral J. Mudimu, South Africa:

I think he's correct there—what Admiral Verma is saying. Perhaps you'll also agree, Admiral, that the fundamental starting point will be to deal with the issue at the local level, taking it to a regional level and, of course, whatever we do, we need to be mindful of the fact that the navy operates at the international level. There must be a degree of information that we're able to share with our friends, with our colleagues. Even if it's a commercial vessel, we need to know, because the danger will not necessarily come from the military. It will come from all the quarters. So at the regional level, we need to strengthen the regional structures and from there be able to share this information with international brothers wherever they may be. Whether that goes in terms of the shipbuilding—like we build the ships in Germany, we then exercise annually, biannually, with the German Navy. We exercise with their navy when their ships are around and then we are able to deal with the issues of interoperability, the type of information that we need to impart to one another. Things like this are working very well.

I think about the ability of the region also to share. Recently we met for an exercise with a Namibian naval vessel in terms of an exercise called GOLFINHO where we were checking the various elements of information sharing with the elements that we involve from Angola, and so forth and so forth. So the region is very

important. Step-by-step we are moving towards international communication and shared, open information.

Admiral Nirmal Verma, India:

I'd just like to add, when initial discourse started on MDA, the example that used to be often discussed was "what happens in the realm of civilian aviation?" You know exactly which aircraft is flying from which airport to the next one, and the intention was that even in the maritime domain, we should come to something similar. I really wouldn't be able to put my finger as to how the system evolved as far as the civilian aviation role is concerned, but today, it's not really a military operation, *per se*. I mean, it is a system which is fully functional and in place, and in due course of time, as I see [it], [if] the MDA matures as we'd like it to, it could, perhaps, be IMO led, possibly.

Admiral Tan Sri Abdul Aziz, Malaysia:

I hope the two responses have met up to your expectations, thank you. We have about five more minutes for maybe three more questions?

Major General Ahmad Al-Mulla, Kuwait:

I would like to ask Admiral Jung: When you think of the mechanism you proposed within your regional symposium, how can we stop our adversaries from benefiting from such a system and mechanism while allowing the regionals to share information within the MDA? Thank you.

Admiral Ok-Keun Jung, Republic of Korea:

The word *adversary,* when we use it in a maritime context, I think we would understand that to be those opposed to the safety and security in the maritime division. That is my understanding. I think when we share information, we need to guarantee that we are able to share information, and, at the same time, we have to make efforts not to leak some information so that we are able to protect our information and our allies.

For example, in terms of the pirates in the seas around Somalia, as we monitor the activities of the pirates, not only do we have to prevent the activities of the pirates [but], more importantly, we have to have a plan not to leak our plans to the pirates themselves. So, a prevention of information leakage is one thing that we can do to protect information.

Brigadier General Zakariya Mansoor, Maldives:

Thank you very much on behalf of myself and the minister for our first-time participation at this most important gathering.

My comment goes to the moderator and also the distinguished panelists. You have recognized the importance of the maritime security demand but, my comment is, I think it is time for us to move to the second phase. When an actual incident happens, for example, in the Maldives, Mauritius, and other vulnerable countries on the ocean face, what are the ways and means with which we are going to face and address that kind of issue?

For instance, the Maldives is in the Indian Ocean, in the middle, and very recently we had a situation where a spill of about 80,000 tons of fuel was approaching our islands. Also, we are facing maritime terrorism threats with threats coming from as far as the Seychelles or on the Somali coast. And there are many other challenges, as a lot of ships pass through the Maldives as well. So it is my humble request to know if there are any suggestions or comments that you would like to hear from the different parts of the world, from organizations which have been mostly formed within the maritime domain area. Thank you very much.

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you and it is nice to welcome you to the symposium.

You ask about the importance of MDA, what is next, what should we do subsequently after attaining the MDA?

I would propose that for Maldives to be able to participate actively in any organization you would have to participate or align yourself to the regional symposium and this is done through the IONS, Indian Ocean Naval Symposium.

We have come to realize that MDA is so important and it is critical for any decision making. The ability to know what is happening in the region would be able to help you prepare, to overcome issues at hand, resulting from any situation. So, in this regard, the ability for the Maldives and the other regional countries to be working closely, developing their own MDA framework, would help facilitate overcoming any future incidents at sea. You mentioned about the oil spill operation—perhaps by having a regular surveillance in the region, the information could be passed to any countries nearby for them to take necessary measures. And I hope that has answered your question. Maybe somebody would like to add something?

Rear Admiral Aland Molestina, Ecuador:

I'm going to talk a little bit about this situation in the Americas, something that I mentioned; and I would also like to add something to the previous question.

The officer mentioned about the security of the information. That security of information is based on trust. I'll give you an example. Most of the countries in the Americas have a monitoring system in place for the fishing vessels. Some are afraid of that. They say if that information—let's say where the fishing vessels are located—is known to another fishing fleet, perhaps they will start stealing the product. For that there is concern. I'm just giving you a very commercial example, and if we are talking about very delicate, classified information, it's something else. Even so, I repeat, I think that trust is the key element.

Of course, to be able to share information you have to have security and safety measures in place.

Now, the officer that asked how to share information and how to benefit from it, I think that we have to remember that the issue of sovereignty; political will; and the EEZ Convention, [which] establishes zones that go from the twelve maritime miles to two hundred maritime miles; and what the rules of engagement are all have to be agreed upon. I think that for the benefit of all the states, we have to agree on these rules. I believe that this will benefit all of us. Therefore, what I mean by saying this is that your country needs to define the political will and establish your

exclusive economic zone, whether it's twelve nautical miles or two hundred nautical miles.

Admiral Tan Sri Abdul Aziz, Malaysia:

I'm sorry, we have time for only one question.

Colonel Abdourahman Aden Cher, Djibouti:

The admiral answered already my question, if you will, because the solution should be at the regional level. But what if one country is not playing its role, what do we do? We have Somalia, as an example. So what to do in a case where a country is not playing its role in the international arena?

Admiral Tan Sri Abdul Aziz, Malaysia:

I would like to respond to that question. Firstly, there must be, again, the trust and confidence. Secondly, there must also be the political will and the military will to curb any threats that are common to both countries, to other regional countries in the region. There must also be an understanding among regional countries to perhaps remind one another that it is so important for everyone to cooperate. We talk about cooperating; we talk about partnership. If you want to be a partner of a successful cooperative, you must, everyone must, perform and function in their own respective roles. I don't know which country you're referring to, but if that particular country does not do what she's supposed to be doing, we have an alternative here, an option here, perhaps, to refer to the world governing body, the United Nations. I think that's what we have done. That particular country has to be reminded and to be sanctioned. That much we can do. Again, as maritime users, we have the responsibility to ensure a safe, secure area and, thereby, countries form a collaborative to help patrol and secure that region. So only one body can sanction another country and that is perhaps the United Nations.

Admiral Paolo La Rosa, Italy:

Yes, on the question as to which kind of approach to maritime security, from my point of view, the first approach must be a national one and in this national approach, you have to look to an interagency approach. You must cooperate with other agencies, as we mentioned before, giving a central role to the navies in this interagency, national approach.

Then, we have to act regionally, using the relevant regional partnerships. There are many all around the world. The Mediterranean and Black Sea is one clear example. In this arena, we must interact with international organizations, like United Nations, IMO, IHO, NATO [North Atlantic Treaty Organization], EU [European Union], and so on.

For bridging all these local, regional initiatives, I think I'm looking for a federation of systems, of these different systems. Why federation? I mean, I'm thinking a single global system would be too complex—we need a simple entity. I cannot imagine a system of systems where we each could request the same configuration for all the systems. We have different systems around the world. Let's only federate those systems so that we can maintain the global MDA under a critical threshold. This critical threshold we see in our regional system, the V-RMTC—works in units

of ten, twenty, thirty, forty navies—no more than that, just to keep it simple. And then we have neither technical nor legal issues to complicate this federation. I'm thinking that with a federation it could be much easier to manage the database itself. Let's think that for the V-RMTC we exchange no less than five to six thousand new contacts, meaning tracks and their history, every day. This federation could be even more flexible, allowing all of us to maintain a distributed architecture and not a more complex architecture. This must be done out of an operational interest without issues of business or ownership being considerations. We all must be shareholders of this system that we have in mind and we try to do this with the V-RMTC, for example. Thank you.

Admiral Tan Sri Abdul Aziz, Malaysia:

Thank you very much. With that remark, we have come to the end of our first panel presentation. I would like to take this opportunity to thank everyone who has made this first session a very meaningful and successful one.

[Applause]

Panel Discussion Two
Collaboration among Navies: Maritime Domain Awareness in Practice

Moderated by
Admiral Edmundo González Robles, Chile

Panel Members:
Rear Admiral Chew Meng Leong, Singapore
Rear Admiral Anders Grenstad, Sweden
Admiral Julio Soares de Moura Neto, Brazil
Rear Admiral M. Stewart O'Bryan, United States
Vice Admiral Dean McFadden, Canada

Admiral Edmundo González, Chile:

Thank you, good morning. My first words are to express my sincere gratitude to Admiral Roughead for his invitation to participate as moderator in this Nineteenth International Seapower Symposium, and also to thank Rear Admiral Wisecup for hosting it. Thank you again, Admirals.

Being here at this prestigious academic institute when I was part of the Naval Command College, Class of 1997, is an important milestone in my professional life, and certainly an honor. It's great to be back.

The issue before us, maritime security, from a navy's connectivity perspective and [in] the building of cooperation initiatives, is a challenge nobody can deny and is growing in importance every day. From the beginning of the decade, the United States Navy has led the effort in promoting the concept that the comprehensive understanding of Maritime Domain Awareness [MDA] is a key element in the building of a global maritime security system. All of us in this symposium know very well that the objectives established to accomplish an effective global Maritime Domain Awareness are ambitious.

Many different factors of type and intensity converge to accomplish the establishment of a robust, effective, accurate, and real-time maritime security system that will not only allow us to know what is really happening within the global maritime domain, but will also allow us to act in a timely manner against potential threats, safeguard human life at sea, and provide safety and security to navigation and maritime trade.

The Nineteenth International Seapower Symposium provides the opportunity to link forces in order to resolve the problems that affect the conservation of this system and it is a significant opportunity to lay the necessary groundwork for its implementation.

Please allow me to briefly share with you what the Chilean Navy, which I have the honor to command, has been doing to contribute to global Maritime Domain Awareness. We have been the host nation for two Western Hemisphere MDA workshops and we have adopted a series of measures designed to improve the exchange of maritime information, such as the participation of MC's network with our own net of AIS [Automatic Identification System] stations, the establishment of a long-range identification and tracking system known as LRIT, and the creation of a data center, certified by the International Mobile Satellite Organization, IMSO.

We also organized a series of exercises of naval cooperation and guidance for shipping, such as the transoceanic, trans-American BELL BUOY series, and we are actively participating in the experiment called Virtual Regional Maritime Traffic Center Americas (VRMTC-A), which is already demonstrating success. I can assure you that the Chilean Navy is ready and will continue to encourage these initiatives in order to maintain good order at sea.

Today's panel is composed [of] five distinguished lecturers from different parts of the world. Their experience and knowledge on Maritime Domain Awareness issues will be shared through their interesting presentations. First of all, I would like to introduce Rear Admiral Chew Meng Leong from the Singapore Navy, who will present "Regional Information Sharing System—Link to a Global Information Grid."

Then, we have Rear Admiral Anders Grenstad, Chief of Staff of the Royal Swedish Navy, who will present "Sea Surveillance Cooperation, Baltic Sea (SUCBAS) System: From Idea to Reality." Next will be Admiral Julio Soares de Moura Neto, Commander of the Brazilian Navy, who will present "Prioritizing and Crafting Engagement Opportunities."

Rear Admiral [M.] Stewart O'Bryan, U.S. Navy, Director of Maritime Domain Awareness, will present to us "Benefits of Open Maritime Data-Sharing, Regional and Global Networks." And, finally, Vice Admiral Dean McFadden, Commander of the Canadian Navy, will present "Integrated Maritime Domain Awareness: Canada's Integrated Approach."

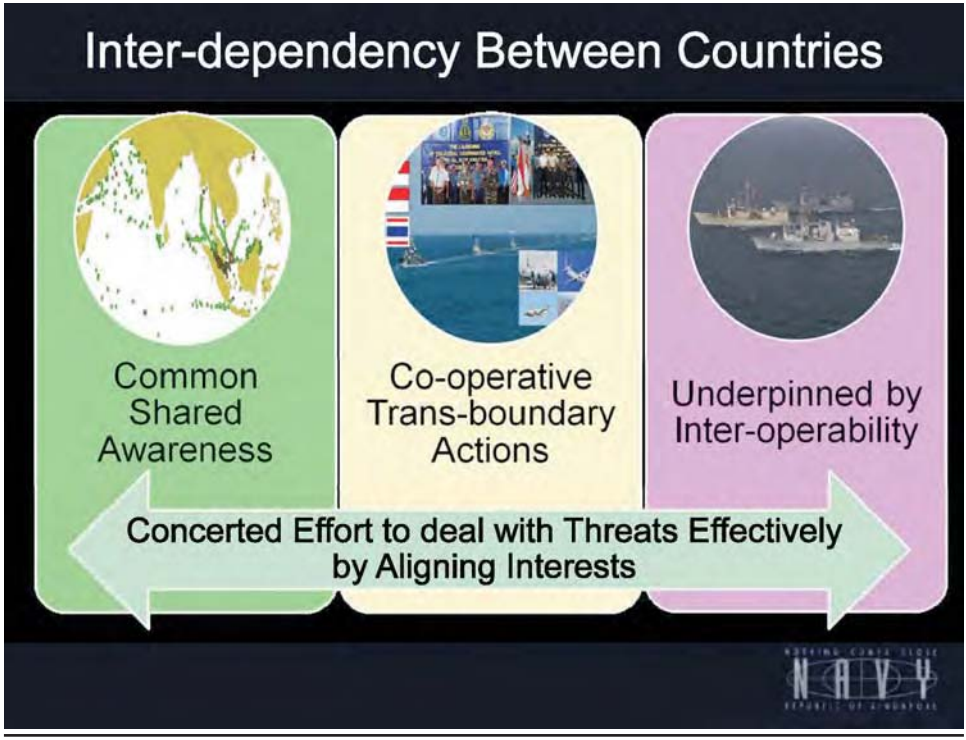
Now, let's review what Dean Vincent Mocini stated yesterday about the panel's procedure. Each one of the lecturers will have ten to fifteen minutes to give his presentation. I will signal that you have five minutes to finish with this lovely yellow card, [and] two minutes left with another yellow card, same one. If it is really necessary, I will show this famous red card and I will blow a whistle like this, as in soccer. I am also taking Admiral Aziz's words from yesterday's panel, "I also hope I don't have to do it."

At the end of the session, we have time for questions and answers. I will signal to the person who wants to ask a question. At that time, please stand up, use the microphone that is in front of you, give your name and country, and state if you want to ask a question or give a comment, as well as indicate to whom it's directed. Thank you very much. Admiral Chew, you may take the floor.

Rear Admiral Chew Meng Leong, Singapore:

Admiral González, I have to say I'm terrified of the whistle, so I will try not to incur it. Admiral Roughead, Chief of Naval Operations, USN; Rear Admiral Wisecup, President, Naval War College; distinguished leaders of navies and coast guards from around the world; naval colleagues; distinguished guests; ladies and

gentlemen—a very good morning. First let me take this opportunity to thank Admiral Roughead and Rear Admiral Wisecup and the Naval War College for inviting all of us here and organizing this very important symposium, and for the very warm hospitality that has been shown. If you'd like to quote a term we have used before, this can be seen as the "Super Bowl" of naval symposiums. It is a very significant gathering of naval and coast guard leaders from around the world, and I think if we leverage on this opportunity in a correct way, we will be able to, I think, make real and substantive progress in terms of collaboration to deal with common security challenges in the maritime domain and for the benefit of each country, and, of course, the larger international community.



It was apparent from yesterday's session that there was a strong consensus amongst participants that interdependency between agencies and countries [is necessary] for safe and secure seas. Concerted efforts by various agencies from different countries in collaboration, despite differences in political outlooks, national interests, and territorial coverage, [are] needed to deal with the issues effectively. There's a need to build a common shared awareness, so as to better understand the prevailing situation. The term quoted yesterday was "no more sea blindness." Navies can leverage this shared awareness and translate it into cooperative transboundary actions; and underpinning such collaborations would be the need for interoperability.

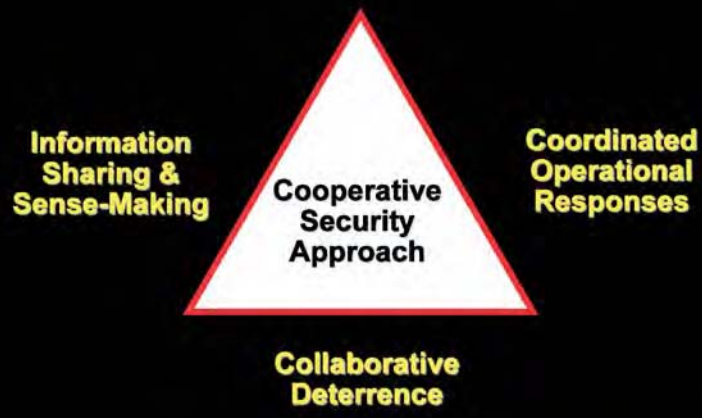
By and large, all countries have acknowledged the need for collaboration in one way or another, but in order for such collaboration to truly succeed, an alignment

Malacca Strait Patrols

Air & Sea Patrols conducted by Indonesia, Malaysia, Singapore and Thailand

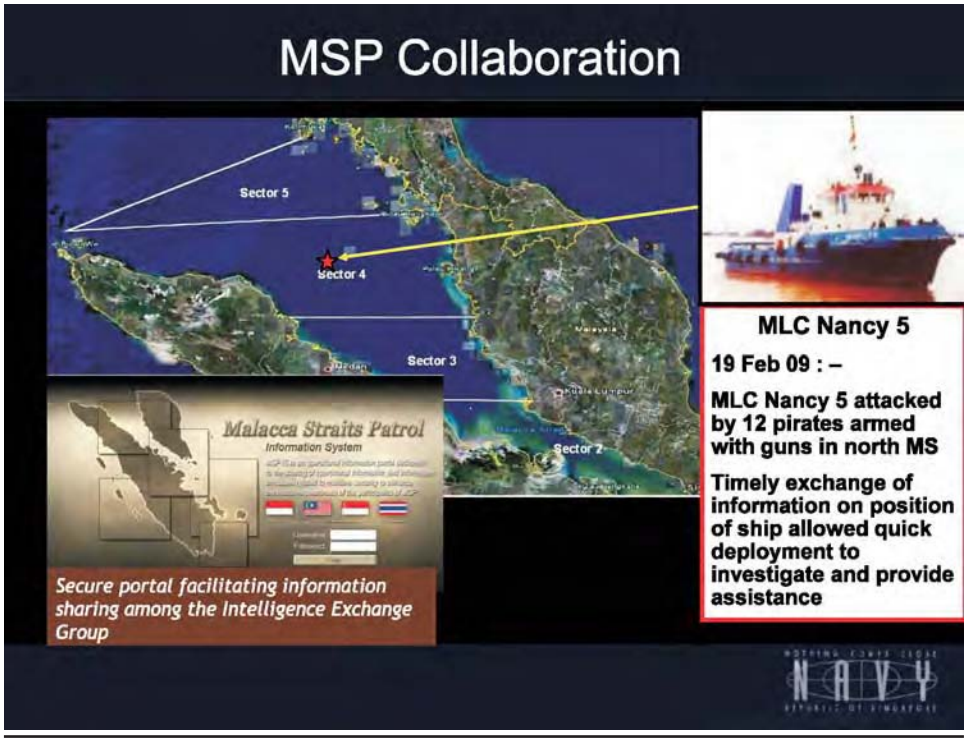
Signing ceremony of revised SOP and TOR to include Thailand

Cooperative Security Approach



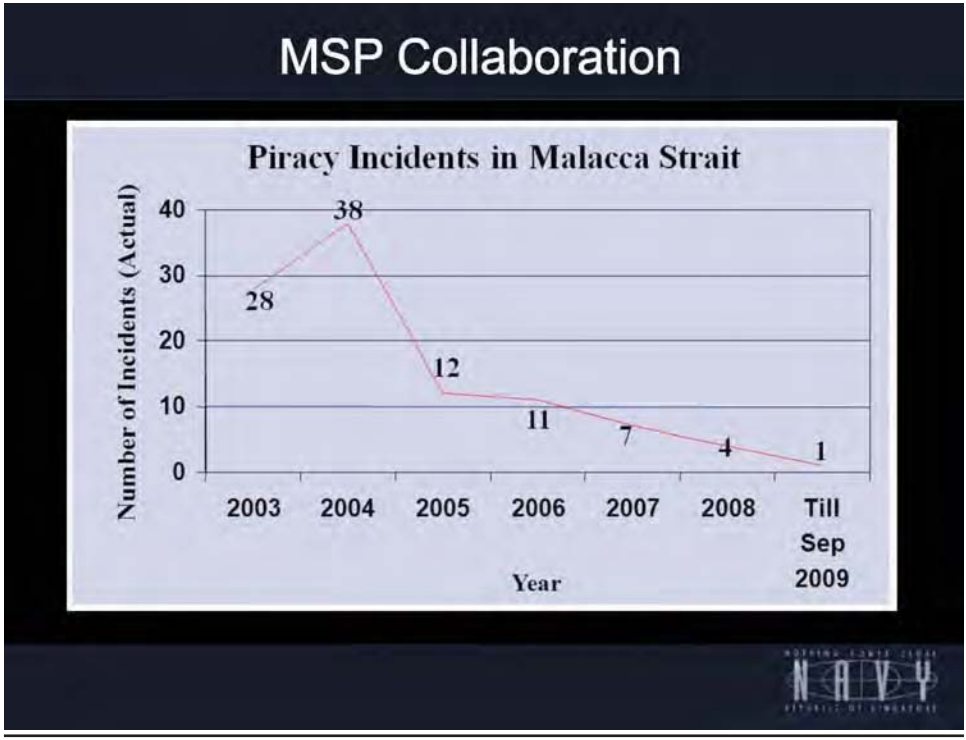
of interests will be critical. In Southeast Asia, the Malacca Strait Patrol, or MSP, is a prime example of such a successful collaboration. The littoral states of Indonesia, Malaysia, Singapore, and Thailand, which joined in October last year [2008], share a common goal in assuring the safety and security of shipping in the Malacca Strait. This alignment of common interests has allowed us to move beyond dialogue to embrace a cooperative security approach towards tackling the piracy threat in the Malacca Strait in a focused manner.

Conceptually, our cooperative security approach has three broad categories of actions: information sharing and sense-making, coordinated operational responses, and collaborative deterrence. To illustrate the collaboration in MSP, let me share a real-life example.



Now, the MSP is comprised of three subunits: the Intelligence Exchange Group, the Malacca Strait Sea Patrol Group, and the Eyes in the Sky Combined Air Patrol Group. In February this year, the ocean tug MLC *Nancy 5* was hijacked in the northern Malacca Strait. Within hours, all four participating armed forces were actively exchanging the latest updates on the ship. This was actually facilitated through the MSP-IS, or Malacca Strait Patrol–Information System, an info-sharing platform linking the four littoral states. The sharing and corroboration of the information then led to coordinated responses, with one of the armed forces quickly tasking its naval assets to the scene of the hijacking to investigate. MLC *Nancy 5* was eventually found and escorted back to port.

Such collaborations occur on a daily basis. Day to day, there is information exchanged between the Monitoring and Action Agencies, or MAAs, of the four countries. In terms of coordinated responses, an air patrol is provided by one of the littoral countries, on a rotational basis, to provide surveillance in the Malacca Strait.



The air patrols are manned by a combined maritime patrol team. The combined air patrols fly across territorial water boundaries of littoral states and allow pooling of limited air surveillance assets to maintain a presence over the wide expanse of the sea lane on a sustained basis. The successful collaboration has contributed significantly to reducing the number of reported piracy incidents in the Malacca Strait.

To catalyze collaboration in the region, especially in the area of information sharing, the Republic of Singapore Navy, or RSN, established the Information Fusion Center, or IFC, in April of this year [2009]. Now, the IFC is a hot setup, operated around the clock by an integrated, international team comprising international liaison officers (ILOs) and RSN personnel to facilitate maritime info-sharing cooperation and collective sense-making.

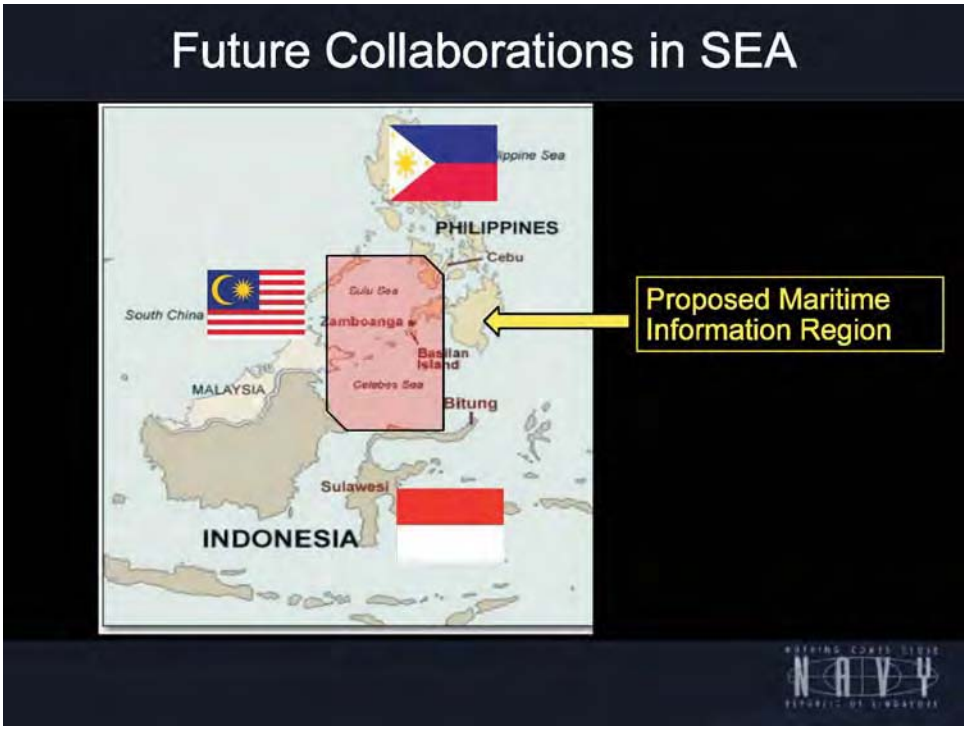
The ILO Initiative is a flexible arrangement which sees partner countries deploying a midranking officer to the IFC. As the single point of contact, the ILOs will reach back to their respective operational centers to access and share maritime shipping information, and prompt collaborative action where applicable. In addition, the ILOs also collaborate with other ILOs when maritime incidents occur. As of the first of October [2010], six countries have committed to deploying an ILO to the IFC, with ILOs from France and the U.S. already working out of the IFC today. Another

seven countries are finalizing their deployments, and should deploy their ILOs soon. We expect to see six to eight ILOs working out of the IFC in the coming months.

As a regional info-sharing hub, the IFC is currently linked to the operations centers of fifteen different countries. The IFC collaborates with these countries through Internet-based, multilateral, info-sharing platforms, such as the MSP-IS, which I mentioned earlier. To reach out to the wider regional community, the IFC also uses the Regional Maritime Information Exchange, or ReMIX system. All the countries within the WPNS [Western Pacific Naval Symposium], for example, are able to access and share information via ReMIX.

In mid-June this year, ReMIX was actually put to good use as we tracked the movement of the North Korean–flagged ship MV *Kang Nam 1*. This was immediately after UN Resolution 1874 was passed. Many countries were naturally concerned about the transit of the ship. Countries wanted to be apprised in good time. Through ReMIX, we shared some of the ship's information with our partners. Eventually, *Kang Nam 1* turned around and returned back to its home port. The value of information sharing and the need for regional info-sharing hubs like IFC to meet regional requirements became clearer.

Indeed, in other parts of Southeast Asia, potential collaborations have also been proposed. Chief of the Royal Malaysian Navy Admiral Abdul Aziz, for example, has mooted the idea of the Maritime Information Region (MIR) in the Celebes and the Sulu Seas regions between Malaysia, Indonesia, and Philippines for sharing information. I think as more ASEAN [Association of Southeast Asian Nations] member countries understand the value of maritime info sharing and as more such MIRs in the ASEAN region get set up, an ASEAN-centric, multilateral, info-sharing system may eventually take shape. Such an ASEAN multilateral, info-sharing system could link up to and leverage on the IFC in Singapore to connect to other regions and



facilitate the translation of information shared into coordinated operational responses.

So how do we move from here? Well, in my assessment, the information-sharing juggernaut has actually gained momentum, especially at the regional level. We have already seen the proliferation of many shipping databases and maritime centers regionally and extraregionally, triggered largely by regional needs. In yesterday's sessions, you have heard about the information-sharing system established across the various regions. Allow me to give you a collated overview. Within Asia, I have mentioned about the MSP-IS for the Malacca Strait Patrol countries and the ReMIX system for the wider, WPNS community. Moving westward, the Indian Navy has also established the Maritime Shipping Information Systems (MSIS), as well as the Indian Ocean Naval Symposium (IONS) for countries in the Indian Ocean region.

In Europe, there is a NATO Shipping Center functioning as part of the NATO Maritime Component Command. There's, of course, the V-RMTC (Virtual Regional Maritime Traffic Center), established by the Italian Navy. V-RMTC's focus centers on the wider Mediterranean community. Similarly, the Royal Navy has made a significant contribution to the UK Maritime Trade Office in Dubai, being linked synonymously with extensive coverage of the shipping situation in the Gulf of Aden. The European Union Maritime Security Centre–Horn of Africa (EU MSCHOA), is also well known to mariners with an extensive coverage of the maritime security situation in the same area, and provides very useful advisories.

I think you know in North America, the USN's MDA program serves as a linchpin. The scale of the U.S. MDA effort is significant, with a sizable impact in enhancing maritime security situation awareness worldwide through linkages established. Of course, there is the U.S. Department of Transport–developed Maritime Safety and Security Information System, or MSSIS, which has successfully fused shipping information from various international partners around the world.

In South America, both the Brazilian SISTRAM [Information System for Maritime Traffic], as well as Chilean GRAFIMA systems have been in existence for a few years, and are also considered regional information-sharing systems in their own rights.

So having given you a recap of the regional info-sharing initiatives, I would like to offer my perspective on how we can move ahead, as well as address the concerns of countries which have yet to partake in info-sharing collaboration. Currently, navies the world over are facing capacity issues, exacerbated by manpower, budget, and [other] competing demands for resources, a point that was not lost yesterday [during discussions at the breakout session]. The regional info-sharing systems provide opportunities to build added awareness through collaboration, which may obviate the need for further direct investments to achieve wider surveillance. Countries should, therefore, plug in now to information sharing and not hesitate and be left behind. I think the time is right now.

I have mentioned about the IFC in Singapore, which we hope will serve to catalyze regional cooperative action. I would even hasten to add that interested partners could look to the IFC for possible collaborations.

For those countries that do not embrace info sharing, a first step would be to plug into one of the existing systems. There's no necessity to create a brand-new system, which would be costly. Rather than being consumed by the "what-ifs," I would say that countries don't need to share all their raw information. All that's needed is to share potential threats that are moving out of our very own backyards, since we have greater awareness in our own area of operations. The larger principle, however, is this: by sharing critical information in a timely manner, one can help other countries to enhance their own security, which, in turn, will yield benefits that can eventually enhance one's own.

For countries with an existing regional info-sharing system, it's up to us now to link together to build a global awareness. I think to engender commonality, we could look into a common, technical, architectural framework for info sharing. Quite clearly, I think the maritime challenges today take all countries, working collaboratively, to deal with [them].

International collaboration remains key to any working solution. We can start with information sharing, developing a shared vision of an extensive information-sharing collaboration at the regional level. These regional information-sharing systems can then link up to one another to form a global information-sharing grid. This will enhance a common awareness, allowing us to detect potential challenges and be able to coordinate actions in a timely fashion. Most of all, I think it will limit the operational space afforded to potential threats, strengthening maritime

security, providing collaborative deterrence, and, hence, bring about safe and secure seas for all. Thank you.

Admiral Edmundo González, Chile:

Thank you, Admiral Chew. Admiral Anders Grenstad from Royal Swedish Navy, you have the floor, sir.

Rear Admiral Anders Grenstad, Sweden:

Thank you very much. Chief of Naval Operations, distinguished admirals, generals, it's very nice to be here. Since this is the third time I have actually attended the International Seapower Symposium as the Chief Naval Officer of Sweden, I'm going to risk a couple of yellow cards, if that is okay with you, Admiral González. Thank you.

As we just heard, regional maritime cooperation is nothing new, and we're fully aware of the different kinds of cooperation that already exist. I would like to stress that this presentation I give you now is merely another example of maritime surveillance cooperation, so my aim here today is to focus and give you some insights in maritime surveillance in the Baltic Sea region and we call this SUCBAS cooperation, Sea Surveillance Cooperation Baltic Sea:

1. How we are translating sharing information into action, and, additionally,
2. What the country of Sweden is doing to enhance maritime surveillance throughout our European Union presidency, which we are having right now, July through December 2009.

In September 2008, Finland and Sweden presented the idea to go from SUCFIS (Sea Surveillance Cooperation between Finland and Sweden) to SUCBAS (Sea Surveillance Cooperation Baltic Sea). So why did we do that now? Well, firstly, the SUCFIS cooperation was a kind of success, so why not go further with more participants? For us and our neighbors, the Baltic Sea area is our common interest. Furthermore, we saw that sea surveillance cooperation gave added value, which I will show you in the presentation right now.

In SUCBAS, we often use the phrase "the national input receives a multinational output." So how did we start it then?

Well, we introduced this idea in September last year [in 2008] and saw that it was a common interest to enhance the maritime situational awareness in the Baltic Sea. We started on a low level, just to create a culture of multinational cooperation within the maritime domain. We used a step-by-step approach, where the first step is very easy to take. It's just to exchange thoughts and start to exchange relevant information. Depending on the participants' will, they can then choose to go further or stay at a certain level, still sharing information, of course. The cooperation at this level is also transparent and very cost-effective.

This is the Baltic Sea region, with its nine coastal states, extensive maritime activities, and sensitive maritime environment. The region has approximately two to three thousand ships at sea at any given moment. This complex situation calls for effective, coordinated sea surveillance and preparedness to act towards a multitude of threats and incidents.

Historically, there has been no common maritime picture. Cooperation between countries and agencies has gradually evolved in certain sectors, where SUCFIS was

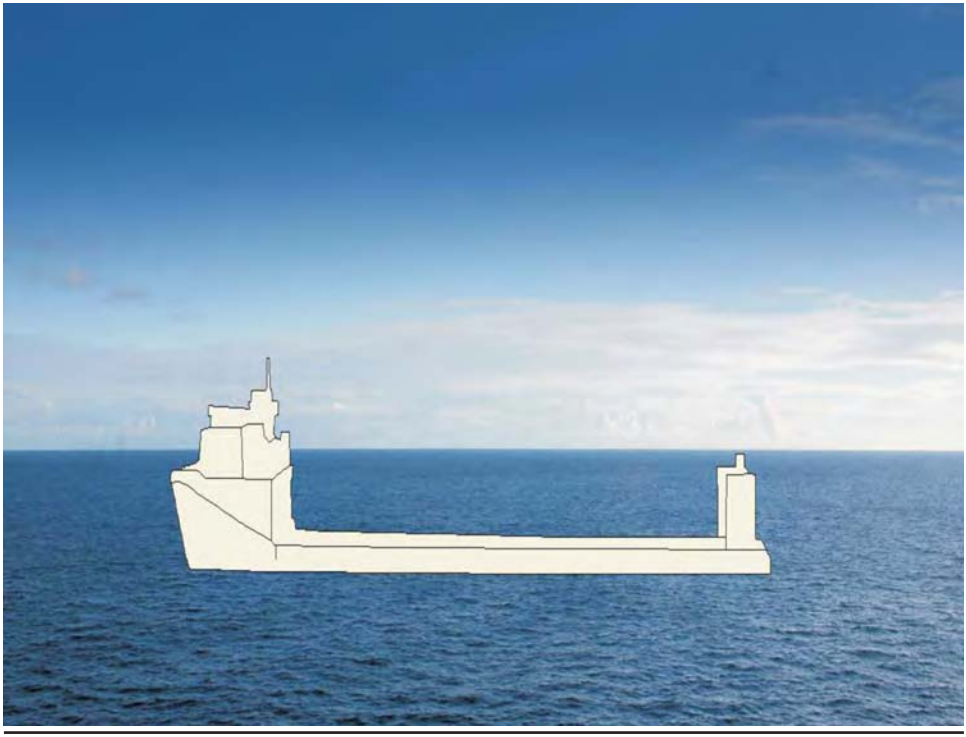
one example. However, the maritime picture remained fragmented and we needed to see the full picture. We saw that [with] cooperation we would be able to get more than our national picture.

It's all about moving from a limited national picture towards a common maritime situational awareness covering the whole region. In order to develop a more comprehensive maritime picture, we, the Baltic Sea states, have initiated cooperation for exchange of maritime information and, today, eight out of nine Baltic Sea states are members. And, of course, there are several advantages.

SUCBAS permits the users to share sensor and AIS transponder information, as well as other types of intelligence and knowledge. Fragmented data can be compiled into usable and valuable information. The SUCBAS initiative is up and running today using existing national systems with a common interface. The participants of SUCBAS can determine their own level of cooperation.

So, what does the first bullet mean? What do we mean by intelligent information? The Baltic Sea region, as I just mentioned, has approximately two to three thousand vessels at any given moment. The dense traffic makes it difficult to sort out relevant information.

The AIS transponder system reduces the number of unidentified vessels. Other sensors, such as radars and cameras, can further reduce the number of unidentified vessels. Even with air and surface assets added, there are still a number of unidentified vessels. But by processing and analyzing information in the SUCBAS community, vessels of particular interest can be identified. This makes it possible for the appropriate national agencies to respond, if necessary.



As an illustration of intelligent information, AIS transponders provide information corresponding to this two-dimensional picture of a cargo vessel. With international cooperation and the subsequent access to more information of different origin, however, perhaps a more interesting picture is revealed.

This is the advantage of intelligent information.

One other important advantage of SUCBAS is that cooperation is based on existing national systems rather than developing and procuring new and often expensive solutions, and the key words here are simplicity, effectiveness, and affordability.

One important aspect of SUCBAS is the interagency cooperation between civilian and military agencies. SUCBAS cooperation allows the relevant agencies to share their information, which, in turn, gives added value.

To exemplify this, I'll tell you a true story that happened about a year ago.

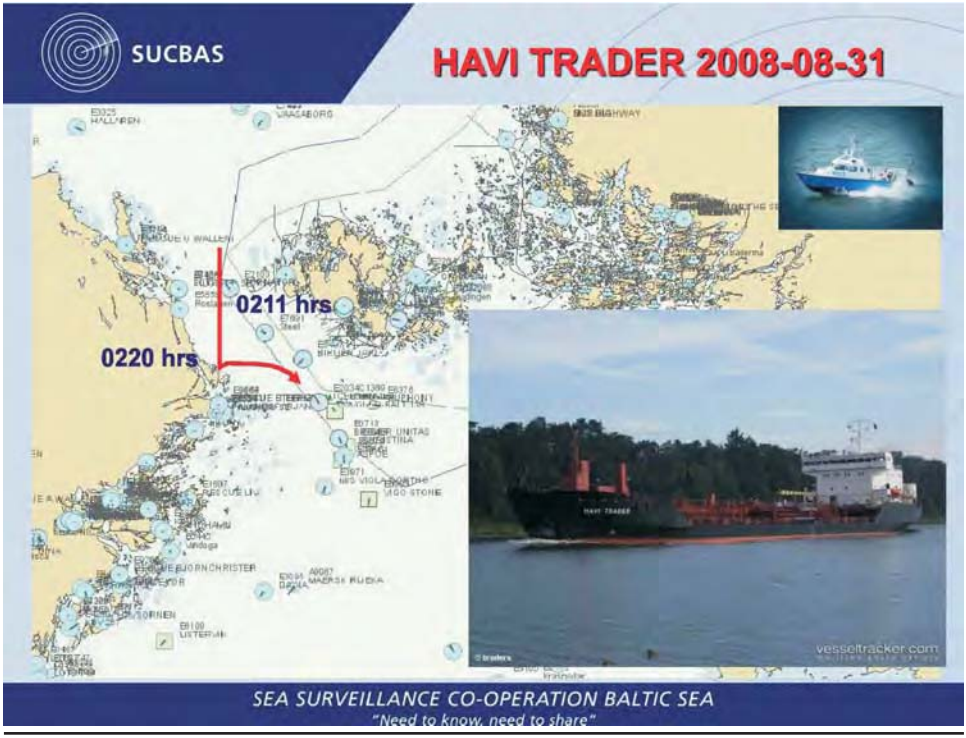
This is a picture of an island named Väddö [on next page], where one can find an old and popular summer camp for children. This island is not so far from Stockholm.

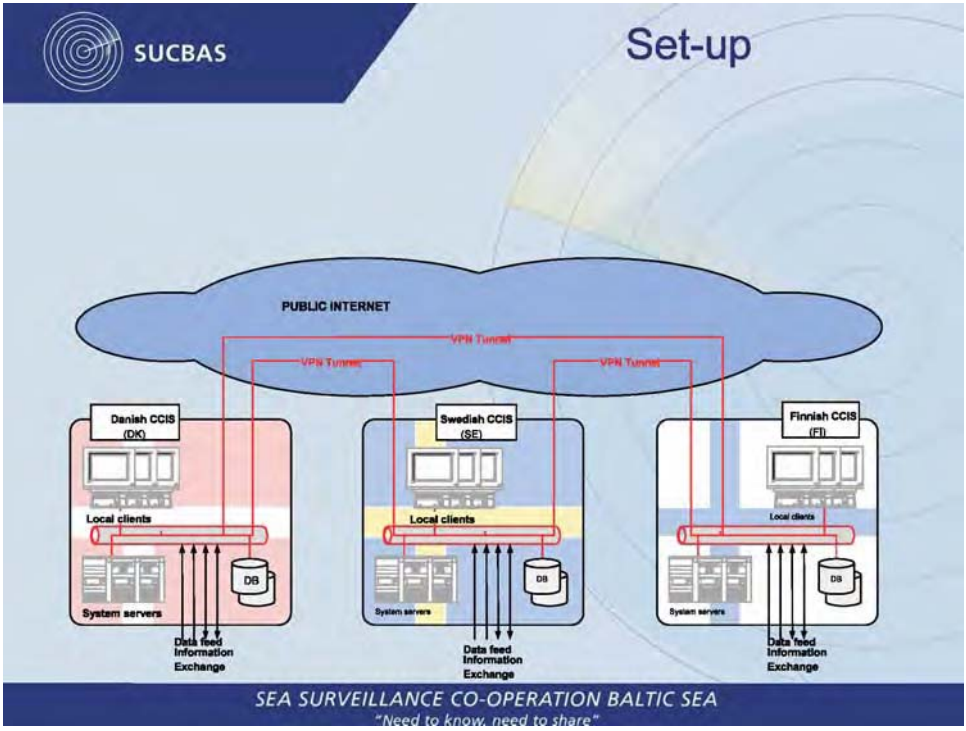
During the night, a cargo ship loaded with thousands of tons of toxic chemicals and acids was on a collision course with this island. The consequences could have been substantial, with extensive pollution in a sensitive marine environment. However, by the cooperation between Swedish and Finnish authorities, a disaster was able to be avoided in the last minute.

Not every SUCBAS member needs to participate in the cooperation at the same level. It's like a Swedish smorgasbord, where each participant decides what options

they want to have, and this is an example of what different levels of cooperation can look like.

As was said earlier, each participant uses his own system, whether civil or military; depending on the chosen level of cooperation, information is exchanged through virtual private network tunnels based on a pull and push system.




SUCBAS
Set-up
PUBLIC INTERNET
VPN Tunnel
VPN Tunnel
VPN Tunnel
Danish CCIS
(DK)
Swedish CCIS
(SE)
Finnish CCIS
(FI)
Local clients
Local clients
Local clients
DB
DB
DB
System servers
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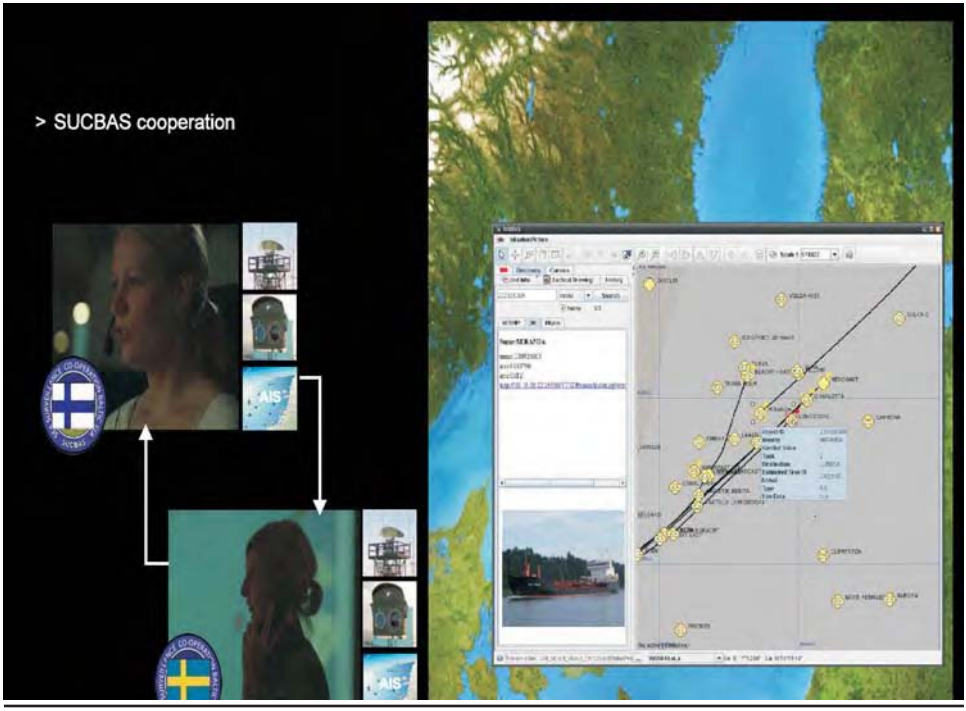
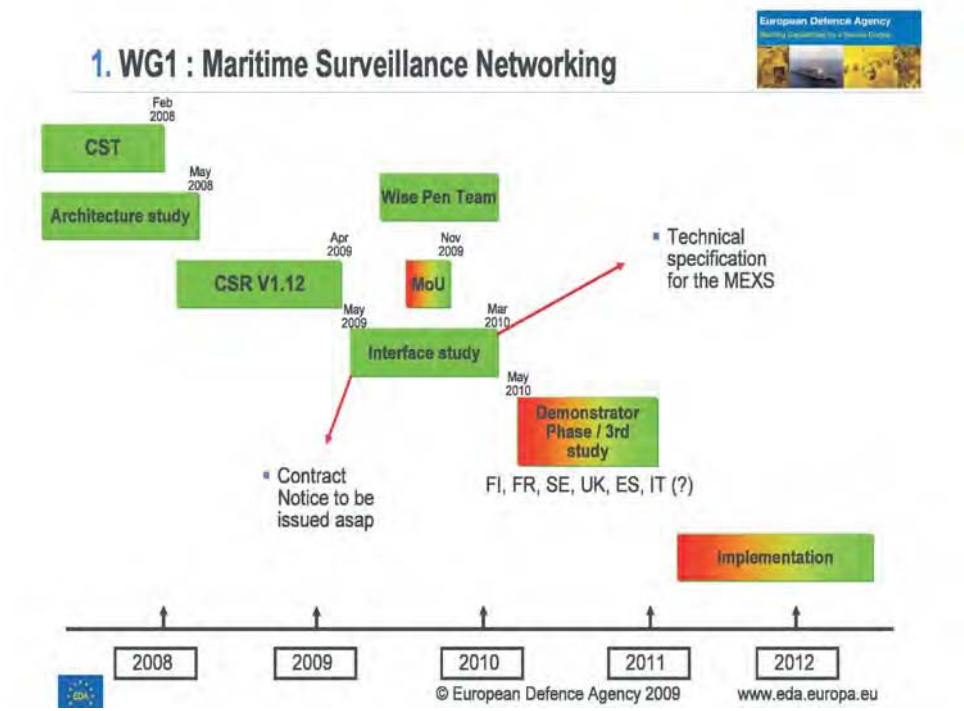
SEA SURVEILLANCE CO-OPERATION BALTIC SEA
"Need to know, need to share"


> SUCBAS cooperation

As I hope you can see on this slide, there are no connections between the national terminals. The connection is made through a common interface in an Internet environment choosing VPN (virtual private network) tunnels. I think the easiest way to tell you how we are translating shared information into action is with this fictional case stressing international and interagency cooperation. The example starts with intelligence from the Finnish Border Guard reaching the Swedish Coast Guard of a ship having loaded illegal goods in a Finnish harbor—sorry, Finland, but this is the case—making it a vessel of interest. The Swedish Coast Guard sends a request for information to the Swedish Navy regarding the vessel. The Swedish Navy designates the ship as a vessel of interest in the SUCBAS community. Through SUCBAS, the Finnish Navy provides more information. This vessel of interest continues on its course, east of the island of Gotland.

Sweden and Finland continue to track the vessel of interest with all available sensors. Finland provides Sweden even more specific information from [its] database.

In the vicinity of the island of Gotland, the vessel of interest is lost. The AIS transponder is no longer sending information, and other information is inconclusive. In order to find the vessel of interest again, more sensors are needed and by using common air and sea assets, without drawing any attention, the ship is detected and positively identified again. When the vessel of interest gets closer to German and Danish waters, Germany and Denmark are alerted through a notification and I will stop the example here, so I don't get any cards. I hope this scenario, anyhow, showed how SUCBAS can be a tool for different agencies in the maritime domain. It's just an example of how the interagency and cross-border cooperation could give added value, may it be [in] safety, security, environmental protection, or the law enforcement field.



As I said earlier, in less than a year SUCBAS has evolved from idea to reality. The key has been that SUCBAS isn't based on an expensive and complicated technical system. The basic foundation is, instead, the mutual agreement rather than a technical solution.

Now to some words [about] what's going on in the European Union during Sweden's presidency of the European Union. We will continue the ongoing work for outlining a way ahead that will allow for further interoperability between civilian and military system[s] for maritime surveillance. Furthermore, facing new demanding EU operations, as for example, OPERATION ATALANTA, EU military maritime forces similarly find themselves equipped with different systems and a mix of different standards, which inhibit[s] the development of maritime situation awareness. In order to cooperate effectively, actions are under way to create a system that can provide a recognized maritime picture for the maritime forces deployed on crisis management operations. With a view to increasing knowledge and providing ideas for future possible civilian and military cooperation in the EU as a whole, Sweden would like to initiate a discussion about increased interoperability [and] connectivity between existing military-civilian systems, and aims to hold practical technical demonstrations on the ongoing maritime surveillance cooperation in the Baltic Sea.

As I said earlier and finish up with now, the basic foundation is a mutual agreement, rather than a technical solution.

Thank you very much.

Admiral Edmundo González, Chile:

Thank you, Admiral Grenstad, and Admiral Julio Soares de Moura Neto, you have the floor, sir.

Admiral Julio Soares de Moura Neto, Brazil:

Thank you, Admiral González; your Excellencies, the rest of the heads of navies and coast guards, distinguished delegates, officers, other authorities, ladies and gentlemen, good morning. I would like to thank Admiral Roughead, sponsor of this important symposium, for the invitation and for the wonderful way that you have received all of us and our spouses in this kind city, and Admiral Wisecup for hosting this event.

Initially, I would like to emphasize the importance of the oceans for the world prosperity, which demands they are used in a rational and secure manner. At this precise moment, it is estimated there are over fifty thousand large ships sailing in the seas, conveying 80 percent of global trade, 60 percent of the oil produced on the planet, and 11 million passengers. Maritime lanes are responsible for approximately 95 percent of exchange between countries, where resources of over $4 trillion circulate annually.

Much attention has also been given to the huge potential of the marine environment, as well as to increasingly more sensitive issues concerning pollution of the waters. In a word, that leads to increasing globalization characterized by a growing and continuous commercialization. The surveillance of the seas acquires a definite significance due to its importance to international economics.

In order to achieve complete Maritime Domain Awareness, you have to consider the political, economical, strategic, physical, geographical, and cultural aspects, which influence the maritime activity.

It's not an easy task. For one, the ocean cannot be administered in the same manner as the land, where the concepts of territorial political division, independence, and national sovereignty are clearly defined.

On the water, however, these issues acquire different dimensions. Borders are often defined by virtual lines, usually there are many complex negotiations, and they are not always supported by the United Nation Convention on the Law of the Sea, the UNCLOS, or by other agreed mechanism.

Several different activities take place in the oceans and the most important ones are commerce, which has already been mentioned; fishery; environmental preservation; tourism; scientific research; exploitation of oil, gas, and minerals; and the military operations.

However, there may also be found illicit activities, presently known as "new threats," such as smuggling, drug trafficking, piracy (the worst threat these days in some areas like the vicinity of Somalia), terrorism, environmental crimes, and illegal immigration. Therefore, we have [to] look for a judicial administrative format and go in with all the sectors, the states, and international organizations, committed to the process.

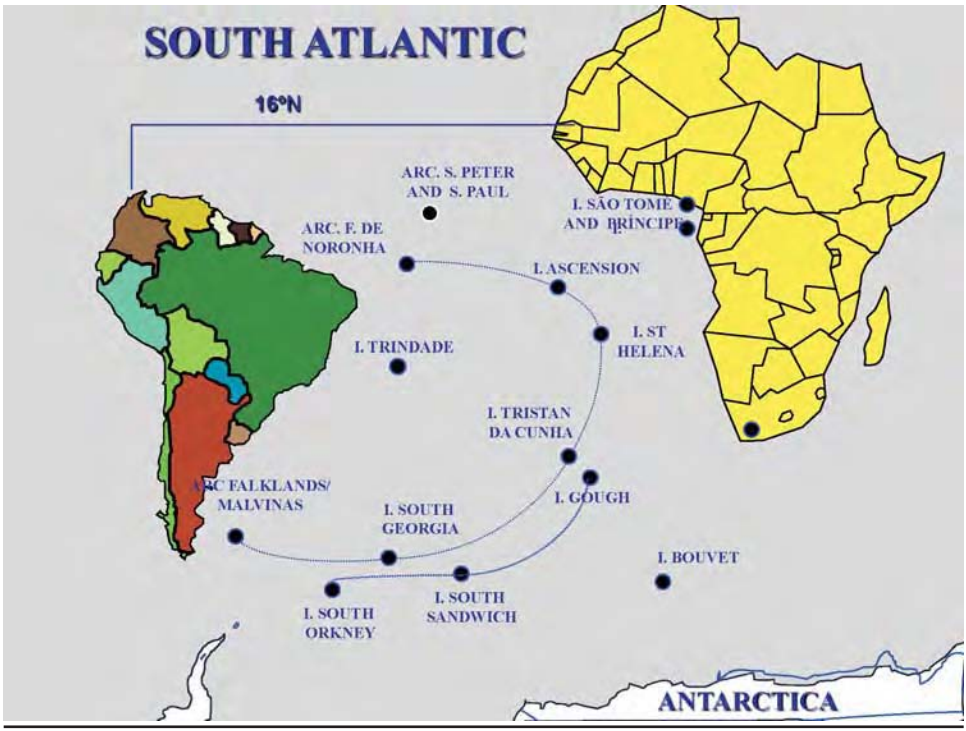
Joining this, there are also difficulties faced by several countries to establish adequate surveillance in their areas of responsibility, creating a perception of impunity, which encourages actions by illicit agents who are reaping increasingly more rewarding gains.

I understand that for an effective Maritime Domain Awareness to be achieved, there will be a need for a structure [encompassing] the gathering of data, monitoring, [and] sensors of naval and air units to allow timely decision making. It should also be pointed out that the navies would be engaged in an ever more relevant role in their countries and in the international context, so that they can lead the definition of the new judicial instruments and execute the operational procedures for the appropriate protection of waters.

In my point of view, these mechanisms should have three dimensions: global, regional, and national.

In a worldwide dimension, the possibility of the establishment of a global network for sharing information should be taken into account. Occurrences at sea usually demand complicated solutions. Therefore, the joint effort of all actors involved becomes imperative. Ideally, the most developed navies should take the initiative to promote collaboration, encourage discussions and exchange of experiences, and maintain permanent contacts within a constructive global perspective. For this concept to become feasible there should be neither mistrust nor privilege between the parties who [participated] in the sharing of what is known. With regard to the sharing of confidential information, there's a need to establish procedures for the enrichment of mutual trust that will enable the enactment of specific bilateral agreements. The main purpose should be the establishment of efficient world maritime governance.

In a regional dimension, the main parameter to be considered for the establishment of geographical distribution of regions should not be the traditional division of continents, but of oceans.



For instance, in the case of Brazil, we are placed in the South Atlantic, which encompasses the countries of the eastern border of South America and the western border of Africa, from the 16th degree north parallel south to Antarctica. Within this dimension, the countries should increase the exchange of data, always aiming for the improvement of the security of the respective area.

The regional organisms should contribute to the activities of global organisms and there should be no competition between them.

In a national dimension, taking into account their own national legislation, the states should assess the need to invest in the installation of equipment and systems which could contribute to widening the knowledge and the control over the waters under their responsibility. Thus, persuasion of the political power and of society in general is essential in each country.

In Brazil, maritime authority is exerted by the Commander of the Navy, who, consequently, is responsible for the management and coordination—together with other military and civilian organizations and institutions, both private and public—of all occurrences on the oceans and internal waters.

Its main projects are control of maritime traffic, navigation safety, prevention and repression of water pollution and predatory fishing, search and rescue, security of sea oil-extracting platforms, meteorological forecast, and prevention and repression of the “new threats.”

Its operation relies mainly on our Maritime Traffic Information System, known as SISTRAM. It maintains the tracking of ships and the search and rescue area of the country, and it receives data supplied by the Automatic Identification System, the AIS, and the Long Range Identification and Tracking System, the LRIT, among others. It is permanently updated and technologically improved.

In addition, the SISTRAM receives information from other systems and two of them can be highlighted by their entirely Brazilian conception. The National Fishing Vessels Satellite Tracking System, also known as PREPS, aims at the satellite monitoring of the Brazilian fleet of vessels over 15 meters in length. And the Ocean Monitoring System to Support Petroleum Activities, known as SIMMAP, monitors all boats and vessels involved in such activities.

The Brazilian Navy is open to considering the transfer of relevant data contained in its Management System to other countries, encouraging a bilateral and multilateral exchange of information.

It should be pointed out that regionally, Argentina, Brazil, Paraguay, and Uruguay established the South Atlantic Maritime Area in 1966, in order to track, control, and protect the maritime traffic in the western part of that ocean. For this purpose, they conduct exchange of data via signal and, [in] 2010, the Regional Center for Exchange of Maritime Traffic Information will be created, allowing integration of the national systems of these four countries.

We are adopting the Virtual Regional Maritime Traffic Center, the V-RMTC, a system developed by the Italian military and presently used by the navies of the

Mediterranean and Black Seas, among others, in order to increase the knowledge exchange between the regions.

We are also sorting out the technical problems so that we can adapt the Maritime Security and Safety Information System, the MSSIS, developed by the U.S. Navy. The information contained in the database of the V-RMTC is already integrated into SISTRAM and integration into MSSIS should occur soon.

To conclude, I stress that Brazil will support all actions from multilateral forums which can contribute to increase the world's maritime security and to achieve effective harmony of the oceans.

As a final message, I would like to share a thought with you: International cooperation is the best approach to equate and resolve the big issues present in the oceans.

Thank you for your attention.

Admiral Edmundo González, Chile:

Thank you, Admiral Moura Neto from the Brazilian Navy, for your good and brief presentation. Please, Rear Admiral [M.] Stewart O'Bryan from the United States Navy, you have the floor, sir.

Rear Admiral M. Stewart O'Bryan, United States:

Good morning, Admiral Roughead, Admiral Wisecup, chiefs of navy and coast guard, delegates, ladies and gentlemen. It is truly an honor to speak to such a distinguished audience here at the Nineteenth International Seapower Symposium. I would like to take this opportunity to discuss the benefits of open maritime data sharing, regional partnerships, and global networks.

First, I believe it's fitting to mention a few historical MDA references throughout history, given the historical nature of this gathering.

Regional partnerships and the sharing of ideas have been around since the beginning of recorded history. One of the first historical references occurred in 480 B.C. when an alliance of seven city-states came together at the Battle of Salamis and subsequently turned the tide of the war. Similarly, trade via sea routes has also been around for a long time, one of these first notable examples being the Venetians who circumnavigated Africa as they plied the seas for trade. I mention these historical references because when I attended the Naval War College, my first two papers were about these two events. I got a B, so I'm hoping with my mentioning them today that Phil would give me an A.

There have been several constant factors throughout the millennia. Countries have relied on commerce to transfer commodities into and out of their [territories], with most of the commerce being transported via the seas. However, such factors have changed since those very early days. While some old threats to the maritime domain, such as piracy and sea robbery, are still very much a concern, several new threats and challenges have emerged. Transnational threats, human and drug smuggling, terrorism, narco-terrorism, the demand for environmental disaster response, and humanitarian assistance are just a few of these newer threats and challenges that have affected, to some extent, the capabilities and missions of navies.

Constant advances in technology, weaponry, navigation, and communication have allowed navies more autonomy, the ability to operate further from land for

longer periods of time, to conduct a broader array of missions, and to communicate more effectively in real time.

Additionally, burgeoning populations, increasing industrialization, globalization, and the liberalization of national economies have fueled free trade and growing demands for consumer products. More than 90 percent of all international trade is being moved by commercial shipping and the amount of shipping continues to expand yearly. Commercial shipping is quite complex and each of these ships can be considered a floating, multinational enterprise. For example, it is relatively common that a ship is flagged by one country; has owners of a different country; is managed by yet a third country; mortgaged, insured, and reinsured by still other countries; crewed by a seventh country; and carrying cargo to and from ports of still yet different countries. This type of arrangement is a matter of business convenience, but adds complexity to the navies' challenges.

Understanding the dynamics involved with this vast and very complex domain falls primarily to each country's navy and coast guard. While these organizations perform their assigned missions well, no organization has enough resources—whether money, people, or equipment—to do it all. This was stated here two years ago at the International Seapower Symposium, and it has been mentioned on several occasions throughout various remarks on earlier panels. This is true for the United States Navy. Our budget is tight and we're limited in our ability to invest everywhere we see a need.

Through open maritime data sharing, navies and coast guards collectively have a better understanding of the maritime domain in order to perform their missions. I see the benefits as fitting into six main categories:

1. Improved situational awareness, sometimes referred to as sense-making ability. Terrorists, illicit networks, pirates, and rogue states are becoming more agile in their ability to disguise illegal activities in the flow of legitimate commerce. Knowing exactly what ships are operating off the coast, where they are coming from and where they are headed, what ports they call at along the way, and what cargo they are carrying supports our ability to discover these illegal activities. This improved situational awareness increases safety and security by allowing countries to act proactively instead of reactively.
2. Second, increase trust and cooperation by having neighboring navies operate jointly at the tactical and operational levels. Our personal equipment can be surged as conditions warrant; trust and cooperation cannot be surged and can only be developed over time. This also has been mentioned in earlier remarks and panels. The sharing of information is a prerequisite for multinational operations. It develops a bond between navies, builds familiarity, resulting in increased trust and cooperation. This can be especially vital in responding to situations involving humanitarian assistance and disaster relief or during times of conflict.
3. Third, data sharing facilitates the safe and due course of commerce. The volume of cargo transported aboard ships has seen a relatively constant increase in excess of 4 percent per year in the recent years. This translates into more ships of all types and sizes navigating the world's oceans every year, transporting people, carrying trade between countries, transiting through choke points, and making multiple port calls during their voyages. Through the raised

awareness of ship operations allowed by the sharing of maritime data, ports are better prepared to accommodate these many merchant ships, reducing potential delays, streamlining port operations, and increasing port safety and security.

4. Fourth, sharing of best practices between regional navies and coast guards, as well as sharing and integrating lessons learned from ongoing initiatives, such as the fight against piracy. Close collaboration and partnering between navies allow for the advances possessed by a specific navy to be spread throughout the region, benefiting other navies, enhancing the synergy, and improving the maritime capability of the region. Especially in this era of fiscal constraints, collaborating with regional partners can enhance the overall capacity in the region by calling upon the shared strength of regions, navies, and coast guards.
5. Fifth, data sharing enhances security and achieves common interests. With more than 95,000 vessels of 100 gross tons or more plowing the seas along with millions of smaller vessels, information-sharing efforts on the national stage are just as critical as the international efforts. Providing maritime safety and security does not begin or stop at the ports; it is also affected by activities on land and it involves law enforcement agencies, nongovernmental organizations, and many other agencies.
6. And, finally, increase partnerships, enhance maritime safety and security, and promote global prosperity by helping with training, providing equipment, participating in exercises or by means geared toward the goal of building capacity. As an example, the Royal Australian Navy is providing some island nations in the Pacific with small boats to patrol their coastlines and assist in providing a better understanding of maritime activities in their area.

Several networks and partnerships that have been mentioned today have been specifically established towards this goal of connecting navies by sharing maritime information and enhancing the regional maritime safety and security with great levels of success. One example is the Regional Maritime Information Exchange System, which provides the Western Pacific Naval Symposium navies with a regional situation picture. The recently opened Information Fusion Center at Changi Naval Base in Singapore is another example of building partnerships and regional information sharing. Lastly, the Virtual Regional Maritime Traffic Center, maintained by the Italian Navy, connects navies and shares information in continually building partnerships.

A common thread between these networks and partnerships is that they share Automatic Information System, or AIS, data as the primary input to their respective network[s]; and this, I believe, is a great baseline for these networks. Many navies have decided to make use of the wealth of information AIS provides by building ground stations and antennae to capture the information and process it to develop a better understanding [and] awareness of their respective maritime domain[s]. The next evolutionary step in this data-collection process was developing a means to share this information with other countries in the region.

What is the way ahead? I offer several possible steps to enhance data-sharing and building capacity.

[First], increase collaboration and openness between regional navies and coast guards to continue to develop the required trust and cooperation that is essential to providing regional maritime safety and security. There are a number of exercises that aim [at] enhancing in interoperability, increasing regional stability, and building and maintaining regional relationships with other navies and coast guards—as an example, exercises such as the annual UNITAS event with the Latin American partners, or the biannual Rim of the Pacific [RIMPAC] when navies in that part of the world enhance tactical capabilities and cooperation [with] participating navies in various aspects of maritime operations at sea. These exercises connect navies and further develop the requisite trust and cooperation between the participants.

Second, encourage participation in associated networks. This can be accomplished through either the expansion of current partnerships, the creation of new networks, or joining existing partnerships on a trans-regional scale. The partnerships and networks already in existence are providing great coverage for their regions, building capacity, and connecting our navies.

Third, share data on a more real-time basis to enhance regional maritime safety and security. As with any source of information, locating data rapidly grows stale as it becomes more time-late. Some of the collaborative partnerships today have data-sharing stipulations to transfer only a daily snapshot of ongoing maritime activities for different regions. Real-time data would allow for better and more accurate decision-making capabilities.

Fourth, establish a standard information-sharing model to facilitate and expedite information exchanged between navies, between common operating forces. A standard model would ease the process of federating various networks and could, in the long term, allow for a more seamless, and, hence, quicker sharing of information. Since all involved parties would employ the same model, cost would be less, since no new technologies would have to be developed to share the information, and it would ultimately serve in the best interests of the nation, the region, and the global maritime safety and security. In closing, I would like to emphasize [that] the successes of Maritime Domain Awareness and associated benefits hinge on the willingness of countries to share information. This sharing of information is the foundation of Maritime Domain Awareness.

In addition to enhancing awareness of maritime activities, the sharing of information builds trust amongst neighboring nations and fosters cooperation. These efforts promote regional safety and security, leading towards global prosperity.

Thank you for this opportunity to speak and your attention.

Admiral Edmundo González, Chile:

Thank you, Admiral O'Bryan. Admiral Dean McFadden from the Canadian Navy, you have the floor, sir.

Vice Admiral Dean McFadden, Canada:

Thank you. Admiral Roughead, Rear Admiral Wisecup, distinguished colleagues and friends.

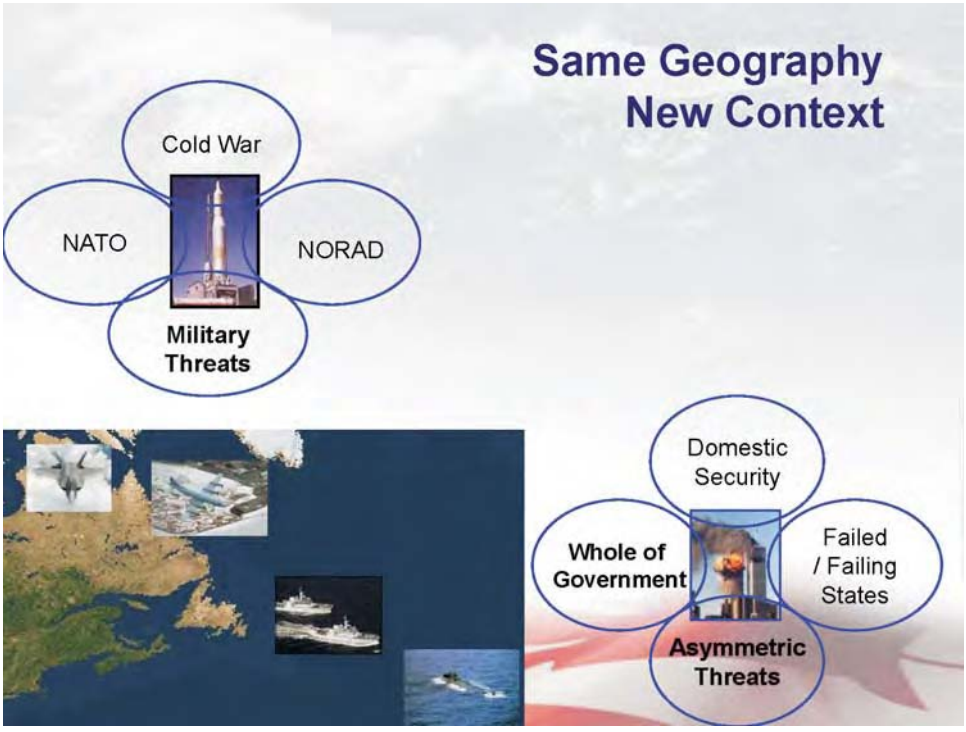
We've spoken over the past few days of the methodology by which MDA can be developed, with, I think, a general acceptance that local and regional structures must form the basis of any globalized system—the challenge being to ensure that regional

awareness can feed a larger system, that structures are sufficiently compatible to allow information to be shared and a cumulative global understanding to be produced.

But we've acknowledged that, even at a national level, there is considerable difficulty in bringing many of the players in the marine environment to share information and so develop this initial building block of MDA. This is a subject that has matured [as a] concept very rapidly over the past few years; and, as I remarked yesterday in the heads-of-service discussion, the issue for us in uniform is not if or why MDA is necessary. It is necessary. But how can it be achieved?

I just thought it might be useful to examine in some detail the "how" of what we have developed in Canada and its connection to structures in the United States. It's undoubtedly unique to our circumstances and not intended as a model. It's, in fact, very different from the structure that has just been described by the Commander of the Brazilian Navy, who acts as the integrator and director of all Brazilian jurisdictional authorities. But the motivation and process by which this has been brought into being in Canada is, I think, instructive, partly because it does show that our solutions are different.

We're embarked as never before upon a program of interdepartmental cooperation across the whole of our federal government. But much of what we're developing must also function and, to a degree, integrate with structures developing in the United States, with whom we share extensive maritime borders. You'll note that I continue to use the word "developing." What I will describe, I think, is not an end state, but rather a snapshot of where we are today. I'm extremely fortunate to be leading in what I refer to as a "live" bit of an experiment and thus much of what I will describe has been developed and implemented by initiatives of my navy.



It is worthwhile to start, I think, by reiterating why, even though I don't exercise the range of authorities that encompass coast guard activities, this development has such a large military component and why it's not just an exercise in government reorganization for efficiency. Until a decade ago, the context within which much of our military forces was organized and structured was that of the Cold War. For this, NATO and, in the case of Canada and the United States, NORAD [North American Aerospace Defense Command] came into being, to counter a massive, but well-defined and geographically fixed, military threat. Today, the potential of a deliberate attack on Canada has shifted from the Cold War era's threat of a nuclear strike to a threat posed by global terrorism in association with criminality.

Since 9/11, it's apparent that those who wish to do us harm can no longer be easily defined and fixed, and the threat they pose is as a result of their ability to exploit the vulnerabilities which exist in an open society. To even detect and subsequently counter this threat requires what has been termed a whole-of-government approach.

But even the use of that term brings with it a changed context and that is that—rather [than] being presumed to be trained, ready, and waiting to engage in the fight when it occurs—our citizens at home now expect that their governments, including their military forces, are engaged each and every day in ensuring their domestic security and safety. The Canadian Navy has always needed to be able to carry out operations both at home and overseas. However, in the current security environment, the line separating domestic threats from those abroad is becoming less definitive. This environment is now global in nature and is characterized by its diffusion, and by this I mean the threat vectors are many and rapidly changing. Soft targets that we are unable or unwilling to defend are the most vulnerable.

This has required that we place greater emphasis on security at home, in defense of both Canada and North America, than in the past. This, I would opine, is truly a paradigm shift for those of us who live in the North American continent. No longer do our citizens see the challenge to them addressed by fighting wars "over there," wherever "over there" was. Today, the need is most significantly demonstrated to them by the conduct of our operations in Afghanistan, where the cost in casualties makes evident the fact that for us, the choice is not either-or—either engagement overseas or security at home—it is both. And in doing both, we use a range of capabilities and options available.

Abroad, our engagement is orchestrated to achieve stabilization and development, a 3D-and-T approach, but involving very well-defined agencies: defense, diplomacy, development, and trade. At home, the amalgam is of military power, law enforcement, and intelligence capacities to detect and counter the attacker, as well as the use of regulatory authorities available to federal, provincial, and municipal agencies to identify and harden targets and make them more difficult to attack.

Interagency collaboration is what produces a whole-of-government approach, and that is critical if we were to bring the nation's full capabilities and resources to bear on the national security challenges we face today, and those we'll face tomorrow.

So let me now walk through the organization and structure that has been established in our marine environment to address these challenges.

Canada's ocean area and maritime approaches are the purview of several federal departments: Fisheries and Oceans, which includes the Canadian Coast Guard; our

Border Services, the Royal Canadian Mounted Police, Transport Canada; and, of course, our navy; and for the purposes of defense cooperation, the navy of our American neighbors. Unlike the situation in the U.S., [which] precludes the use of military forces in support of domestic law enforcement, the Canadian Navy has routinely supported other federal departments in a variety of ways, including fisheries patrols, maritime drug interdiction, and measures to curb illegal migration from the sea. But these arrangements have undergone substantial change.

In 2004, a national security policy articulated, among other things, the requirement for federal agencies to improve cooperation in order to strengthen our maritime borders—to, in essence, close the seams that existed between their individual regulatory authorities. Transport Canada was established as lead agency, but the navy was given some specific responsibilities: first, to develop an operations center on each coast, where the players shown here could be brought together to coordinate activity; and second, to be prepared to coordinate, not necessarily lead, an on-water response to a threat, should one be required.

The intent in establishing Marine Security Op[erations] Centers [MSOCs] was not to militarize the environment or give new regulatory authorities to the Canadian Forces, but, as an institution, we were well-placed to bring these centers into being.

First, we're already animated from a threat perspective and postured for contingency planning and response. That, in essence, is what guys like us in uniform do. We're hardwired to conduct an intelligence preparation of the battle space, identify potential threats and vulnerabilities, and posture forces accordingly.

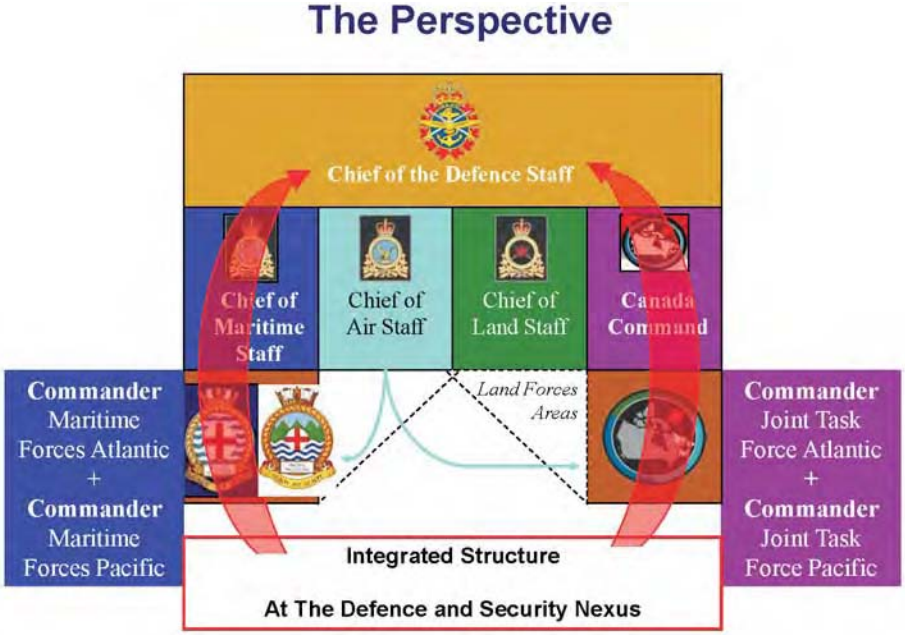
Second, we have established functional relationships with all of our federal departments who have maritime jurisdiction, and with the United States Coast Guard, predominantely at the start for search and rescue operations in the northwest Atlantic, and with the United States Navy under the auspices of defense cooperation.

Third, and as a result of that defense cooperation, we maintain a recognized maritime picture that is built and shared with alliance partners. But the real challenge in establishing security operations wasn't simply to expand this picture by wider pipes carrying more data, or by creating an expanded architecture, although that, in itself, can be difficult. The problem is not physical, but rather cognitive.

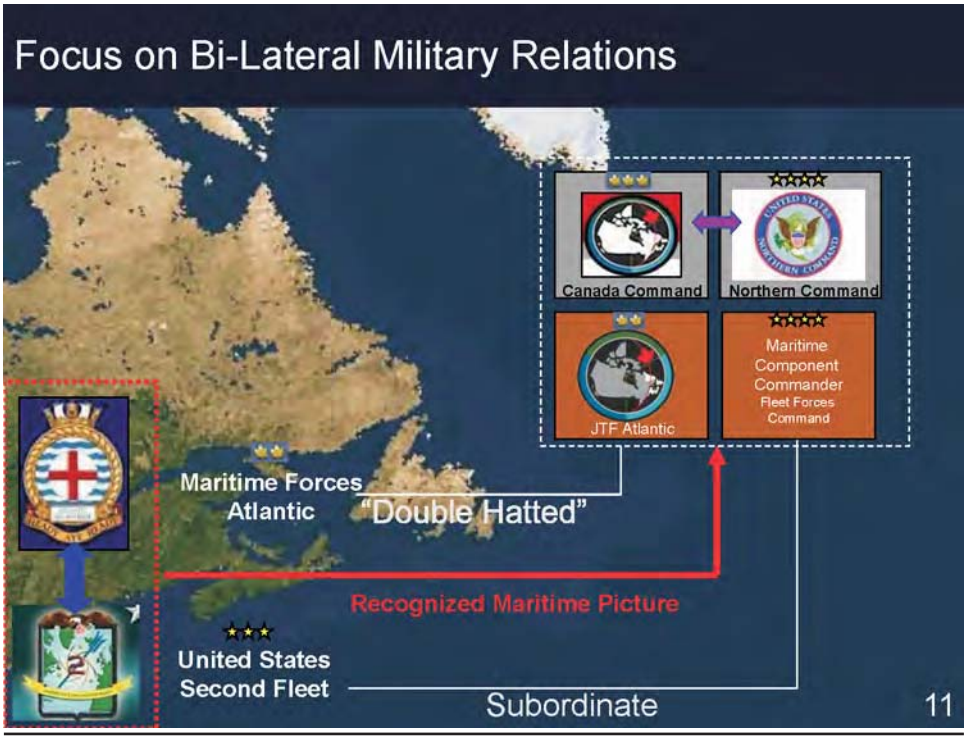
The operations center was conceived out of the need for greater interdepartmental cooperation; however, the desire was for this cooperation to be achieved whilst maintaining the integrity of each partner's legislative authority. In fact, the national security policy articulated a jurisdictional approach to maritime security and for good reason. In a free society, there is reluctance [toward], and thus a prescription to prevent, the unfettered sharing of information between government agencies. For example, our customs agents should not make all that is known to them of the habits of Canadian citizens available to our federal police, the Mounties, for the purposes of criminal intelligence.

There remain appropriate restrictions on what can and should be passed and thus [we have] segregation of databases of information. Not to do so would be an infraction of individual liberty. But to limit the flow to that which existed in the past, and thus slavishly remain within our jurisdictional lanes, means there is little possibility of closing the seams that we say exist.

Collaboration to a greater degree than existed before is required. In the United States, creation of the Department of Homeland Security was one of the means chosen to address that issue. In Canada, we have adopted a different model, intended not to supplant authorities but to better coordinate and extend activities.



Coming to grips with a structure that would synthesize the information available to these entities was undertaken at the same time as we fundamentally altered the organization of our military forces to address the new perspective on threat[s] to the homeland.



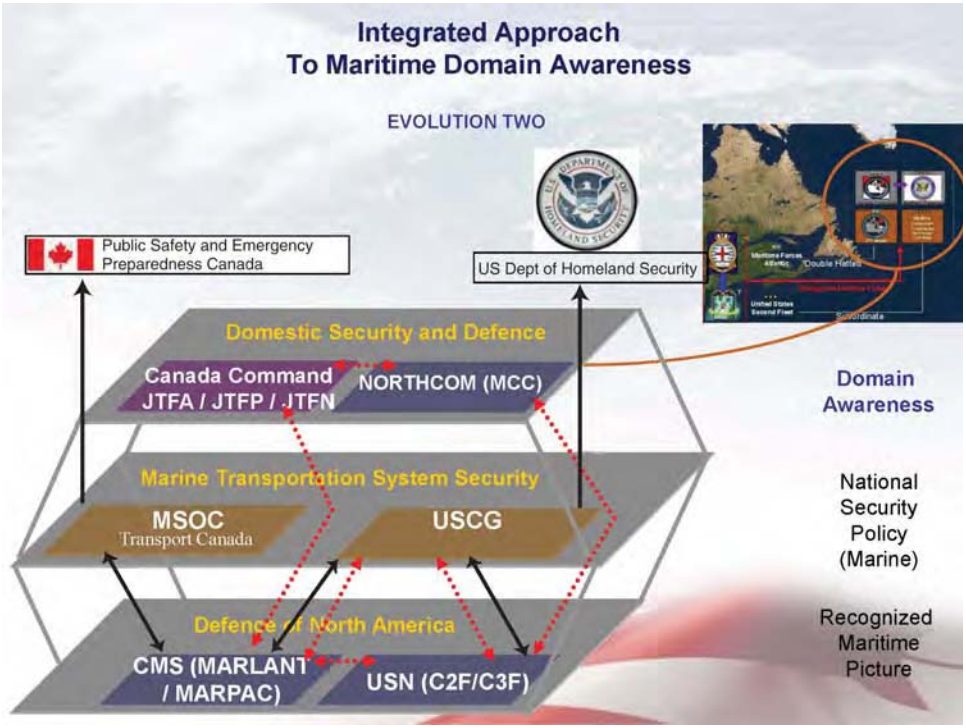
In the United States, Northern Command (NORTHCOM) came into being as a distinct combatant command. For the first time, we, in Canada, viewed our own country as a single theater of operations and established Canada Command (CANADACOM) as a single joint structure tasked to conduct ops. This was a command that I held until appointed head of the navy this summer. Prior to that, I held dual responsibilities as Commander of Maritime Forces in the Atlantic and as the Joint Task Force Commander in the region, with twin chains of command shown here by the arrows.

I was responsible to the head of the navy for development and generation of maritime forces, and to Commander of Canada Command for employment of land, sea, and air forces in the east, and so, in the recent past, have been through both of these streams and thus engaged fundamentally in getting this right.

These dual responsibilities undoubtedly added levels of complexity to how we did business, but as I hope to show in the next few slides, they allowed us to build upon what were and continued to be superb navy-to-navy relationships at the coastal and numbered fleet levels, to achieve effective integrated structures that operate at the nexus of defense and security.

So on both our Pacific and Atlantic coasts the foundation of our understanding, certainly in the defense realm, was evident in the creation of a Recognized Maritime Picture [RMP]: a shared, classified database, part of a global system that involves other national entities and other allies. Information, although not all classified, is shared predominantly on a need-to-know basis and involves such things as the position and movement of naval units, ships, submarines, as well as vessels of specific defense interest. Although still maintained separately, added to this picture is information gathered by our security partners, primarily for the purposes of marine transportation security. For us, this is the responsibility of Transport Canada, a federal regulatory and safety department. But the creation of the Marine Security Op Centers, with Transport Canada as policy lead, functionally represented the initial stages of *de facto* MDA centers in Canada. In the U.S., similar authorities evolved to the Coast Guard, with the Department of Homeland Security construct, to include security responsibilities beyond the "legacy" programs of transportation maintenance, waterway control, and environmental protection.

Within this layer is another order of magnitude of data. The [dotted] lines shown here show the flow of classified information and [solid], that of information that is

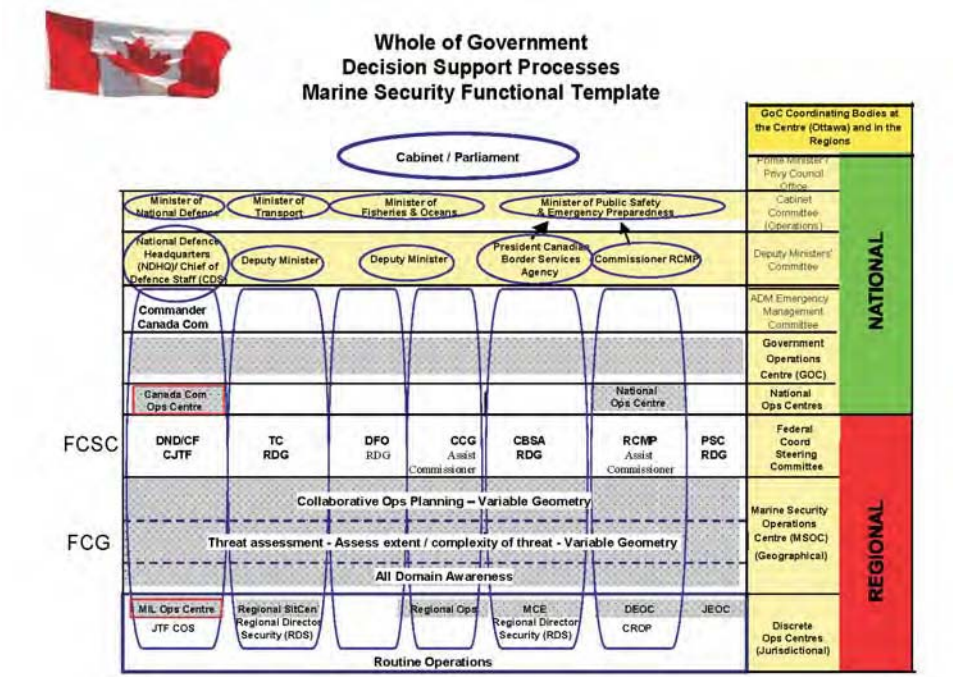


generally available, or perhaps sensitive for the purposes of privacy or economic interest. We're talking about things like merchant ship movements, current voyage and connections, engineering states, confirmation of compliance with safety and environmental requirements, the historic usage of the vessel, et cetera.

You will note that I refer back in the inset to the navy-to-navy basis upon which the RMP is based, and I do so to make the point that this second layer is not military in its structure or purpose. It relates to the evaluations of security, not defense threats.

But, of course, domain awareness, to be effective, must bring these perspectives together—not just for the purposes of evaluation and understanding, but to allow coordinated action. Again, the small inset reinforces how this would be effected in the military domain were the threat to be one of defense. [In the event of] an armed attack upon Canada and/or the United States, that response would be directed through joint operations entities, using whatever assets were most appropriate: navy, air, or special forces, with defense arrangements between Canada and the United States being sufficiently robust to allow this to be planned and executed in a combined, binational fashion.

However, as was to be expected, most situations for which a response is needed are not related to defense but rather security concerns—the shipment of drugs, illegal migration, health threats of pandemic proportion, illegal fishing activity, or environmental threats. In these cases, evaluation, understanding, and response to the threat remain within the purview of Public Safety in Canada and Homeland Security in the United States.



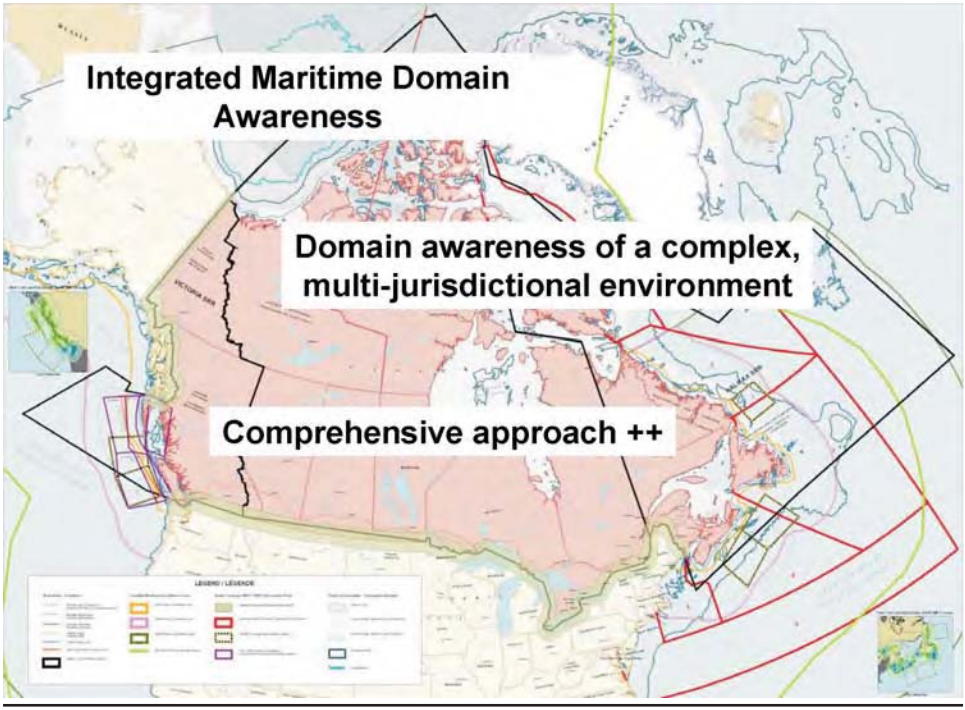
In Canada, this is the matrix of decision support processes that bring distinct regulatory authorities to bear from within our MSOCs.

The vertical columns show the specific agencies represented within the centers with the ministries they report to. It's not important that you know the details identified in each of these columns, but rather that they exist and that they represent the line of authority by which the regulatory mandate of a specific department is brought to bear. The existence of the MSOCs does not obviate this responsibility. Rather, it allows for the horizontal information and intelligence sharing. It provides for a level of understanding that could facilitate a problem being identified and an alert raised and for planning to be conducted collaboratively in formulating a response.

This is undoubtedly a busy slide and a complex structure. I show it not to cause you to drift off to sleep, although that is often the effect on me when I show something like that, but rather to hammer home what I think is a critical point and a lesson that many of us find difficult to accept.

There are many players involved in the process of developing Maritime Domain Awareness and many who have distinct, jealously guarded, and entirely appropriate mandates for action. There's never going to be a simple organization chart of responsibilities for this but, in my experience, just because it briefs ugly does not mean that it won't work. In fact, the longer I've done this, the more I'm convinced that one overarching culture or institution is not the most effective way to organize our resources. Our efforts should not be in achieving a streamlined structure, but rather in breaking down barriers to communication and information sharing between different regulatory agencies.

The environment will be multi-jurisdictional. Barriers to information sharing will, in some cases, be founded on strong and appropriate legal principles, but



more often, communications are impeded by culture and by a lack of understanding and experience. The old adage of "I never did it that way before" too frequently means "I'm not going to change"; and yet, change we must.

My challenge is to help build and share a common understanding of the security situation in the air and sea approaches to North America, while respecting the sovereignty of two independent nations and the jurisdictional authorities of multiple departments across three levels of government, which exist in both nations. To do so successfully, I believe we must build on trusted organizational relationships and expand these to incorporate the strengths of many agencies, both military and civil. The result cannot be a bureaucratic entity, but rather one with the capacity to operationalize, process, and effectively harden our maritime borders, such that there are not evident seams that can be exploited by our enemies. We may not achieve a principle of military operations to which we may aspire—unity of command—but we must achieve unity of effort.

Integrated Maritime Domain Awareness can be achieved by the alignment of organizational structure and process. Those engaged in this activity must be cognizant of not only operational, but also legal constraints upon the sharing of information. We must remain free and open societies, but we must also be animated by the existence and the severity of a threat to our societies. This demands a measured and balanced response on the part of us all.

Ladies and gentlemen, it has been a privilege to speak to you today. I would like to thank the College and you, sir, for this opportunity, and I'd be delighted to participate in addressing any questions you might have.

Admiral Edmundo González, Chile:

Thank you, Admiral McFadden. We have had a superior opportunity to listen to the opinions of five distinguished navy leaders. We have seen how difficult is the task [of] finding a procedure to share information between partners. We have a long way to go to find the solution, but I have no doubt that we will find an answer. Before the question section, I would like to highlight some of the challenges that we still need to address.

First, the technological gap between navies. We must be interoperable, so we need common type[s] of systems, doctrine[s], and procedures. If we want to act, we need the right tools to do it rapidly and accurately. Integration seems to be the correct approach highlighted by Admiral McFadden during his presentation to face the same geography, but in a new context.

Second, keep on pushing for regional initiatives on information sharing as Rear Admiral O'Bryan told us in his presentation. It seems that there is improvement on this subject, but we need to maintain the effort and export it.

Third, the V-RMTC, Virtual Regional Maritime Traffic Center initiative, certainly is a step in the right direction, as Admiral Moura Neto from [the] Brazilian Navy stated; as well as [are] the IFC, Information Fusion Center, discussed by Admiral Chew during his presentation, in the Strait of Malacca; [and] the SUCBAS system in the Baltic Sea shared by Admiral Grenstad from the Royal Swedish Navy.

Fourth, we must increase the amount of multinational exercises in order to improve interoperability and the knowledge between partners. Trust comes after knowing each other.

And, finally, we need to work on an international legal framework that will allow not only the exchange of information, but also the ability to take actions against potential threats.

Thank you very much, Admirals, for your insightful presentations, and I am sure your views have made an impact on the audience, and perhaps they have generated some questions. So, at this time, I would like to open the floor for them, following the rules that I am sure they already know. Please, the floor is open. Admiral, sir.

DISCUSSION

Rear Admiral Rusli bin Idrus, Malaysia:

I have one question. As keepers of the sea, we have always been dealing with this fact of balancing between the freedom of navigations and positive control of the sea. As for today, we all have agreed that sharing information is vital in the context of keeping the sea safe.

I would like to raise this question to Admiral Grenstad. So my question is, after this, how do you foresee more positive and comprehensive action between navies and the law enforcement units in the future? At the moment, we have all agreed that even with information sharing there are some problems, but now as we go forward, how do you foresee more collaborative and comprehensive actions between navies and law enforcement units? Thank you.

Rear Admiral Anders Grenstad, Sweden:

Thank you very much for that very easy question, which I will answer with a yes and a no. I think [of] what the American CNO did with us last night, when he took us here and we started to talk, talking in a small group, creating trust, feeling and seeing that we actually are heading the same way. I presented SUCBAS and it looks very easy—eight countries, and we have been there for thousands of years, but, when you go back in history, it has been a closed-door environment. Sweden has been locked into itself, in some kind of neutrality. To go on with [building] this trust—talk, talk, talk. Dialogue makes things easier and easier and the funny thing is now it's much easier to talk between navies than [to] talk between agencies on the national level. So, that is the next step. Thank you very much.

Admiral Edmundo González, Chile:

Next question, please? Admiral, sir?

Rear Admiral Victor G. Guillory, United States:

Good morning. This question is for Admiral Chew. First, thank you very much, sir, for your presentation and overview of all of the domain awareness systems that exist. My question is one of analysis. The systems, in many cases, are based upon the nation having an understanding of maritime traffic, abnormalities that may exist, and being able to then act on what is different. I would appreciate your thoughts on how do we address this from a larger framework, a global framework. Do we need analysts with new skills or is there a technology, technological solution? Thank you.

Rear Admiral Chew Meng Leong, Singapore:

Thank you very much for your, I think, very apt question. Earlier, I highlighted the ReMIX platform, which I showed in my presentation. What you may be interested to know is actually, we have gathered within the platform a database of almost 200,000 ships. Now, the difficulty for all regional info-sharing systems is that you want to derive useful information from the largest database that you have. Ultimately, the goal—I think it was highlighted yesterday by Admiral Nirmal Verma in particular—is to achieve early warning of potential threats, to be able to zoom down to what could well be a vessel of interest, and then to drive action on the national level or coordinate responses amongst a group of countries. I think that is really the ultimate end goal.

I don't have a very good answer for this, but I have to say that different entities, different info-sharing groupings, are actually experimenting today with trying to figure out how to analyze the vast amount of data that we have. In the IFC, we have a system which we call SMART. It's a simple system where we write down the rules of what could well be things that we are going to look out for, trends. The idea is to profile particular ships. For example, it would be maybe a ship that's changed its name too many times, changed ports too many times, or carrying cargo which you're not very sure of. So by creating this rule set it allows us to zoom down from the large database to a smaller set. Then we drive down further to figure out whether, amongst a smaller group, they are contacts of even greater interest. Then we take the information and bring it to all our partners, so that they can look at it. If they have additional information, they bring it back to us and we do further analysis and finally determine if this is indeed a potential threat or otherwise. If it's not, fine. If it's a potential threat, we have to deal with it. The general term that we apply to this whole endeavor is called "sense-making." It's not a term that's invented by us; I just want to be very clear. The original person who came up with this term was a guy called Dave Snowden of the Cynefin Centre. He talks about analyzing chaos in order to derive useful data. This is an area where I would say that I think we do need a lot of collaboration—not only within the region, but right across the world—because nobody really has the best answer. We all want to, amidst all the data, find where the anomaly is, ultimately to derive useful data that will allow us to plan for coordinated responses.

So I think a framework would be useful. I think more dialogue on this whole subject is probably needed. I think we need to elevate this dialogue probably to the people who really understand. This is quite involved. Sense-making is really an involved process. It's a lot of processes involving technology; but, ultimately, it is the rule sets that we need to put together and then translate into a system that will help. So I hope that this is something that is [a] subject for consideration for all navies around the world.

Commander Mark Mellett, Republic of Ireland:

My question is addressed to Admiral McFadden. How important is political will for Maritime Domain Awareness?

Vice Admiral Dean McFadden, Canada:

It's essential and [it is] one of the reasons why I think we need to reiterate for what reasons we are going through all of the work that needs to be done to get the better understanding of the domain. If there isn't an ongoing pressure to get it right, institutions who are, you know, diffuse in their responsibilities and have very different perspectives of the world will drift apart. The actions upon which they will need to devote resources will be driven by things other than a threat perspective. It requires political will to ensure that you continue to advance based upon the belief that there's a threat that you need to accommodate. Seams that exist between regulatory authorities are the areas that are the most difficult ones to close. That's why I took some time to explain why I think we need to do it. It's not for the purposes of efficiency. You need to have political will established and reinforced on a continuing basis, or the very complicated structural and collaborative methods that we're trying to put in place, bureaucracy will pull apart.

Major General Ahmad Y. Al-Mulla, Kuwait:

My question is to Rear Admiral O'Bryan, please. The question is—we have poor nations, and we have nations with some resentment to[ward] joining the regional system that exists—the word "respect" was used over five times today by Admiral McFadden regarding the MDA system, but can the system today be very optional for countries to join when it can be offered to them to have it? How important do you think it is to have an international umbrella over the MDA system, like search and rescue, and like other systems, one that will be compulsory in the future for states? Thank you.

Rear Admiral M. Stewart O'Bryan, United States:

Thank you, sir, for the question. It is my belief that an international umbrella or a global network could be some aspirations in the distant future. But, when you start getting that complex, that bureaucratic, it gets very complex and difficult and there are different levels of participation. So it's my understanding that you kind of build to that. The regionalization and the networks that are going today, if they become too bureaucratic or complex, will complicate people's abilities to join or willingness to participate. So, starting with a less complex baseline of information sharing and then building upon the current relationships is probably the stepping-stone needed to get to an international umbrella; and maybe the next step would be something where you federate your regionals where you can share amongst the regions and then build to that step. I hope I answered your question. Thank you.

Rear Admiral Mario Caballero, Peru:

This is a question for Admiral Moura Neto, please. Admiral, linking the panel today with the previous panel and referring to the previous person's remarks, we can reference two systems or two preferred systems—[one] that seeks a global organization or a system preferring regional organizations. It seems that there is a dilemma between the two in the case of Brazil and the case of Canada and others. They are seeking levels that offer solutions for their countries—in the case of Canada, as they seek solutions in joint efforts with Mexico, in the case of Sweden and in

the case of Admiral Chew, you have sought integration among countries with the regional alternative.

On the other hand, there has been mention of the difficulty that arises when other agencies are included, because it's not only a maritime solution. There are a number of government institutions that have links to other institutions in other countries, and the solution becomes increasingly complex. What would you think of the opinion that this solution is not exclusively in the hands of the navies or the coast guards, but also the International Maritime Organization, which can also contribute with funding, because not all countries have enough resources to implement the systems that have been presented here today? Thank you.

Admiral Julio Soares de Moura Neto, Brazil:

I believe that everything starts at the domestic level. You have to be aware that countries must have sovereignty of their waters. I think that's where things start—being aware of that and being aware of how important it is to protect your waters, either through the navies, coast guards, or by a group of agencies. It's important that the country is aware of the fact that the country itself has to be responsible for its waters. Understanding that, the country is able to develop a system to make sure that all the vessels that come into the waters under its jurisdiction are documented and reported to the country. So, like that, we can identify all the countries and all the vessels that come in and display abnormal behavior. It makes it easy for the country to control and do the surveillance of its waters.

In addition to that, we will gather data so that each country can take care of its waters. We add information at the domestic level, at the global level. I think it's important that each country is aware of what is happening and that there needs to be political involvement, so that the country is able to understand how important the sea is. The countries that are able to recognize the importance of the sea, they are able to establish a system of surveillance. All the rest are just tools that aid in taking care of this task. That's it.

Rear Admiral Chew Meng Leong, Singapore:

Just let me add to this particular subject. In the case of the Malacca Strait Patrol, when we developed the collaborative system, there was very clear alignment as far as interest and we actually had agreement, at least at the political level, of the principles that would govern the actions for Malacca Strait entry. Ministers of the original littoral states of Malaysia, Indonesia, and Singapore came together and actually agreed on three overarching principles that would drive the collaborative effort. One is that [it is] the littoral states who have primary responsibility for the Malacca Strait. Two is that user states and also international organizations can have a role to play in the security in the Malacca Strait. Number three is that all actions taken must, of course, respect the rule of law and also the sovereignty of the littoral states involved. Because we have quite clearly articulated the principles there, it actually becomes the overhanging framework so that collaboration in the Malacca Strait can take place. To be fair, it's not only limited to navies. The navies have taken the lead to provide collaboration, to share information, to bring certain assets of surveillance and presence in the Malacca Strait; but, having said that, the situation is a lot more complex than just having the navies to work on collaborative deterrents.

There needs to be also discussion and cooperation amongst various maritime agencies involved. Within the Malacca Strait framework, there is also what we call Tripartite Technical Expert Groups (TTEGs) comprising agencies other than the navies. They are basically providing the other complementary actions to help ensure the safety and security of the Malacca Strait. So, that is something that I would like to share with you, thanks.

Colonel Abdourahman Aden Cher, Djibouti:

[Simultaneous translation from French follows] One recommendation first and then a question. As for my recommendation, I think that the panel presented different regions in the world that have implemented numerous endeavors. Malacca, for instance, is where cooperation between the four states has reduced the acts of piracy. In my region, I come from Djibouti, we have a number of maritime forces in my region and you will recognize, as I do, the actions of the Korean Navy show the interest, the global interest, in my region. Yet all the maritime forces that are in my region do bring some security without reducing the activities of pirates along Somalia's coast. My recommendation is the following: since the presence of all these forces is there, why not help the countries of the region establish the interconnection, in order to reduce the acts of piracy as Admiral Chew discussed regarding his region? My question is to Admiral Chew—if one of the countries were not to play its role, would it really work?

Rear Admiral Chew Meng Leong, Singapore:

Thank you for your rather interesting question. I am not sure which country is not playing a role in the region, that's not for me to say. I think there are some lessons that we can take from our experience in the Malacca Strait Patrols and bring them forward to the Gulf of Aden. I'm not the foremost expert, so [to] speak, as far as the situation in the Gulf of Aden—that is a very complex set of issues—but I think it suffices to say that the collaboration of navies within the region from CTF [Combined Task Force] 151, from OPERATION ATALANTA, from ships, and the national tasking in some way I think has limited the operational space for the pirates. I don't think we are going to be able to eliminate the piracy problem, because the problem is very complex and is serious. Until such [a] time [as] we are able to solve the problem on land, I think this problem is likely to stay. Then the question is, what kind of larger framework can we bring to the region? Again, I am not the foremost expert, but some of the ideas that we have seen actualizing in other regions can actually be transported into the region.

In fact, I'd like to highlight for you that there was a study team by the Yemeni government. They came to Singapore to look at our information-sharing systems under quite a separate setup among civilian agencies, to see how is it that they can create a center that will enable information sharing, and they have taken ideas back. Of course, it is now for the Yemeni authorities to implement, I suppose with assistance from supporting countries. I think this is an issue that is not going to really go away, but I do think that the region does require support from coalition maritime forces and other forces that operate in the area. I think one way in which we may want to start is to investigate how we can strengthen the level of information sharing within the region and, also, [among] the forces that are in the region, so at

least they can target their actions against pirates that operate within what is a very, very large area. I remind you it is two million square miles, or something like that. It is a challenge, but I think there can be a start. I suppose Singapore can relate experiences. I don't think we are in a position to take any lead in the particular area, but having said that, I think it does require all countries, big or small, to make an effort; because, ultimately, the important point here is no one country and no agency has ability to solve this rather difficult challenge. I think collaboration must be the way to go.

Admiral Edmundo González, Chile:

Admiral Grenstad, do you want to add something?

Rear Admiral Anders Grenstad, Sweden:

Okay, I do want to add something. As you remember, Colonel [Cher], I visited Djibouti a couple of weeks ago and we had a nice talk. I realized then, having three ships in the area, we didn't share that much information with you. The Americans are helping out a little bit, as I understand, so you'll get radar information for your combat information center, and I think when you have that one up and running you should ask the European countries, anyhow, to help out and help you to get the more recognized maritime picture. I think you are doing a fantastic job there, but we can actually help out much more than we have been doing.

Admiral Edmundo González, Chile:

Okay, we have room for the last question. Good. Well, as a closing remark, I would like to say that remembering my strategy classes here in this famous auditorium has brought back happy memories of our professor, Dr. Michael I. Handel, who, unfortunately, is no longer with us. I may conclude [with the thought] that we are facing something similar to what Clausewitz called the friction in war. Eliminating friction that interferes with the establishment of global Maritime Domain Awareness is the great task we have as leaders of the world's navies. Clausewitz proposed to us a recommendation to eliminate this friction:

> Perseverance in the chosen course is the essential counterweight, provided that no compelling reasons intervene to the contrary. Moreover, there is hardly a worthwhile enterprise in war whose execution does not call for infinite effort, trouble, and privation; and as a man under pressure tends to give in to physical and intellectual weakness, only great strength of will can lead to the objective. It is steadfastness that will earn the admiration of the world and of posterity.[1]

The key, in my opinion, ladies and gentlemen, is perseverance.

Thank you very much to the admirals here and thank you for your time.

1. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton Univ. Press, 1989), p. 193.

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An Address

Admiral Thad Allen, U.S. Coast Guard
Commandant, U.S. Coast Guard

Admiral Gary Roughead, United States:

Well, as Vince mentioned earlier this morning, we're not going to take a break, so for the elder gentlemen in the audience, like myself, this will be a test.

I would like to take this opportunity to introduce my good friend and shipmate, Admiral Thad Allen. Regrettably, I'm going to be leaving, because for my cultural experience this afternoon I get to go to a meeting in Washington. That's what I'm going to be doing culturally. But I cannot think of a better partner in the endeavor that we have under way in our country—and, indeed, working with navies and coast guards around the world—than Admiral Thad Allen, the Commandant of our Coast Guard. As you know, he, Jim Conway, and I unveiled and signed our Maritime Strategy two years ago and he has been steadfast in the pursuit of that strategy and the approaches that we have defined in that. I will tell you on a personal level, I have no better shipmate, partner, confidant, or bulldog than Thad Allen, because he understands the problems, he's so practical in achieving solutions to those problems, and he has great drive and consideration for those who are working on the problems. So, it's a great pleasure for me to introduce my good friend, shipmate, and partner in partnerships, Admiral Thad Allen. So, Thad, thank you for coming, thank you for being here.

Admiral Thad Allen, United States:

First of all, let me thank my shipmate, Gary Roughead, for the chance to talk to you all this morning. It was two years ago that I stood on this stage with Gary Roughead and Jim Conway and we each described our part in developing the *Cooperative Strategy for 21st Century Seapower* and we laid out some goals that went beyond the projection of naval power. If you'll remember, we talked about maritime security, humanitarian assistance, and disaster relief–type operations. If you look at the content of the conversations that you have been having over the last couple of days and the ones that I just heard as I joined the conference, there is definitely a significant body of work for navies, coast guards, and other agencies that have public safety responsibilities, to come together to integrate, to deal with asymmetrical threats and transnational threats.

I'd like to go over a couple of issues that I have been working [on] with Gary Roughead, our partners in the United States, and our international partners, to frame not only the importance of the Maritime Strategy, but the importance of moving beyond the traditional view of the projection of naval power and the integration into what Dean McFadden earlier called a whole-of-government approach.

I would start off by reminding you, and many of you already know this, there is no single model for what a coast guard or a coast guard–like agency is, [including] the breadth of their missions and their reporting chain in government. When I meet my counterparts from around the world, I find that the minority are actually inside a defense organization. We have very many coast guards that report to interior ministers, border guards, public safety ministries, and, in some countries where there are no armed forces at all, there could be a justice ministry or another ministry. This is a challenge, but it also is an incredible opportunity to integrate what we are doing, not only across the United States government, but across the governments of our partners. It allows us to expand the conversation into areas that bear on Maritime Domain Awareness, such as who has regulatory responsibilities in those countries for shipping, who has communications responsibility, who controls the data centers, who is responsible for sharing information, and how are those operational pictures passed between agencies inside government and then between governments.

So what I have found, in the two years since we promulgated the strategy, is this has been the basis for discussion that has helped us start to address problems.

As we heard in the last panel, the issue of piracy off the Horn of Africa is something that was not discussed prominently two years ago, but we know is a problem that we have to deal with as a community of nations moving forward. When we do that, it requires a whole-of-government approach, but it also requires us to work as an integrated international team.

So what I'd like to do is take you through a couple of examples and some of the visits I've had and some of the people I talked to in the last two years since we were here in Newport and lay out some of the things that are happening. And since piracy was just discussed, I'd like to describe to you my role in the United States as it relates to piracy and what we have been doing from the Coast Guard side to integrate.

Now, the actual operations being conducted by the United States over there are done under Fifth Fleet and Vice Admiral [William E.] Gortney, who was with us at the conference and who works for General [David] Petraeus in U.S. Central Command. But the fact of the matter is [that] the real issue over there, and it's been stated very well by Vice Admiral Gortney, is if you have an act of piracy, you need two things: you need a pirate, and you need a piratable ship. And so what we've been trying to do—while it is very difficult to deal with the internal issues inside a nation to deal with piracy, we can deal with the piratable ships side of that.

In the United States, I am the competent authority for dealing with U.S.-flag vessels. We do the safety inspection on these vessels, we license the masters and the mates, and we lay out the conditions for security for these vessels under the International Ship and Port [Facility] Security Code. With that in mind, last May, we convened a meeting in Washington. It was hosted by General Duncan McNabb, who is the Commander of the U.S. Transportation Command. Vice Admiral Gortney was there from Fifth Fleet. We had representation from the joint staff, the Maritime Administration, and I was there.

I announced that day that all U.S.-flag ships that are operating in and around the Horn of Africa had fifteen days to do a vulnerability assessment related to their vessels and submit a plan to me on how they were going to mitigate those vulnerabilities, up to and including either unarmed or armed security teams if they would be required.

The two basic elements that cause concerns and risk and vulnerability over there are what we call low, slow ships—low freeboard, lower speed, higher risk. We asked U.S.-flag vessels to give us a plan on how to mitigate those risks. So as we stand here this morning, the U.S.-flag vessels that are operating over there right now are operating under enhanced security measures that I required as a competent authority for the United States over U.S.-flag shipping.

That's a good thing. We have significantly reduced incidents involving U.S.-flag ships.

The problem is that most of the tonnage of the vessels that are operating through there [is] operating under flags of convenience: Liberia, Bahamas, Panama, Marshall Islands, and so forth. I've had discussions with the International Maritime Organization [IMO] and we have taken the measures to reduce the risk of piracy, and made those voluntary standards for international shipping that have been promulgated by the International Maritime Organization. I believe [that] this is where our Coast Guard, whole of government, transport ministries—people who have these responsibilities—can work collectively with the navies of the world to create an environment that reduces the risk and the likelihood of piracy. So my job as the Coast Guard member of the U.S. naval team, if you will, is to work my statutory, regulatory responsibilities to reduce the threat to the extent that I can, and we're doing that.

The next general assembly of the International Maritime Organization will take place the third week of November in London. I will be leading the U.S. delegation and I intend to make standards to reduce the risk of piracy a major topic of my presentations that I will give there at that time.

In addition, the Coast Guard has worked very, very hard within the U.S. government, with our international partners, to do one other thing regarding piracy, and that is to attach consequences to the behavior of pirates; or, as my lawyers would call it, "a consequence delivery regime." Sometimes, lawyers are good.

We had a very successful negotiation with the government of Kenya that resulted in a memorandum of understanding being signed back in January that would allow a process whereby Kenya would accept for prosecution acts of piracy and we actually have cases that are under way in the Kenyan courts as we speak. These are the international agreements, partnerships, and constructs that we are going to need to build to make sure that we're dealing with all facets of the problem. There is nothing worse than interdicting pirates, having them foul your deck, and then having to put them back ashore with no consequences. So we need to work very, very hard to make sure that we all work together and we are doing this through the International Maritime Organization and UN Security Council resolution [1851] to be able to attach consequences to these actions. And we will continue to do that moving forward.

Third area on piracy—the Coast Guard has deployed Law Enforcement Detachments into the Fifth Fleet and they are serving as directed by Vice Admiral Gortney on Navy ships that are attached in the area. What we've been able to do, and this is a challenge for many of you that I've spoken to as I've traveled around the world, we've been able to integrate Navy visit, board, search, and seizure (VBSS) teams for security with Coast Guard law enforcement detachments (LEDETs) that have skills and competencies in boarding, search, and then how to conduct the required actions that lead to a successful prosecution, and that's [including] understanding the

evidentiary requirements. If you're going to go to court and seek a prosecution, make sure that evidence is preserved and that you understand the level of proof that will be required to bring those consequences to bear.

To give you an example, in the case of the *Maersk Alabama*—you're all familiar with the *Maersk Alabama*. That was the case where we actually engaged pirates with Navy SEALs. One of them survived, one was already on the ship. At that point, we needed to treat the *Maersk Alabama* as a crime scene. So when it got to Mombasa, it was sealed off and Coast Guard criminal investigators and Navy criminal investigators went on board and preserved evidence for a prosecution. It gets back to my point where you have to go on board with the end in mind, and if the end in mind means to get these folks into court then our ability to put Navy and Coast Guard people together to achieve the security outcomes you want, but also to hold accountable those pirates and be able to take them to court, is a good outcome and one we need to continue to work on.

There is a high-level contact group that's been developed in the United States. It's outreaching to foreign partners, and we will continue to do that. But as we move forward, my goal as the Commandant of the Coast Guard is to use my position and my authorities, our capabilities, and our competencies to build those other areas that go beyond the tactical employment of forces just to stop the act and attack the root causes where we can.

As I've traveled around the world, I've noticed there are a couple of other areas where international cooperation and Navy–Coast Guard teams are making a considerable difference. Let me first talk about [our] own hemisphere, here in the Americas.

We have some of my good friends in the room, Admiral [Guillermo Enrique] Barrera from Colombia, and Admiral [Jorge] Pastor [from Mexico]. Thank you very much for being here. We were in Mexico City not long ago for their independence celebration, *El Grito* [16 September]. We have talked about the teamwork between navies and coast guards and coast guard–like organizations to deal with the drug trafficking threat that we see in the Western Hemisphere. We are having increased success every year through a number of actions we have taken that integrate international efforts and domestic efforts.

The first is a series of bilateral agreements on what we are going to do in relation to drug trafficking and how the U.S. and our partner nations who are patrolling down there with Joint Interagency Task Force South will finally take these fast boats down and, again, cause consequences to be associated with [the criminals'] action. That is, either arrest or prosecution in the United States or the countries of jurisdictions where they might be.

Over the course of the years, we've been able to develop a number of regional agreements regarding information sharing that have allowed us to fuse intelligence, pass it quickly, and queue up operations so the nearest country that has the capability in the jurisdiction can act. Because in the end, we want the drugs off the water and we want the drug traffickers held accountable.

There is a lot of talk in the United States about our southwest border. As the Commandant of the Coast Guard, as I've told our friends in the hemisphere, the problem is a hemispheric problem—a commodity that is flowing and returning

money to drug trafficking organizations is a problem that we all share together. We can be most successful at [solving] it when we share information and work together in a cooperative spirit. I'd like to compliment our Mexican partners.

A little over a year ago, we found a self-propelled semisubmersible operating off the west coast of Mexico. There were no service assets available to respond. We passed the information to our Mexican partners and, within an hour, they responded. And Mexican Marine Special Forces vertically inserted onto the self-propelled semisubmersible under way and took it down. A terrific example of how we can work together when the information gets passed and you have the right assets in place to address the threat.

Another area we've been working together is illegal fishing. As I've traveled around, I've made the comment that whether it's a navy mission, a coast guard mission, a fisheries and forestry mission, or a public safety mission, we're really talking about the things that are critical to national sovereignty. Drug trafficking, illegal migration, illegal fishing, offshore oil and gas exploration and production—these are the things that really, really matter, especially in very difficult economic times, and they all call for integrated, international solutions.

We are working very, very diligently with our partners in Oceania in the South Pacific, with our French partners, our New Zealand partners, and our Australian partners, to take on issues like migrating tuna stocks, and the inability of small nations to be able to project presence and enforcement capability to the limits of their exclusive economic zones [EEZs].

We have done the same thing off the west coast of Africa and the Cape Verde Islands. In some cases, we have made agreements where we will take a Coast Guard law enforcement detachment, put it on a partner nation vessel, and, again—similar to what we've been doing with the Navy on the Horn of Africa—work jointly to detect illegal fishing and take proper enforcement action. Sometimes this has been a Coast Guard law enforcement detachment operating off a U.S. Navy ship and sometimes it's been a Coast Guard law enforcement detachment operating off a partner nation ship. In our view, it doesn't matter; it's what's effective, what achieves the results, and what helps us establish a presence in the EEZ to support the protection of these fish stocks moving forward.

In each of these cases, we have an example of an expanded view of naval forces and maritime strategy that goes well beyond traditional concepts of navy operations to integrate not only a whole-of-government approach, but a whole-of-nations-of-the-world approach to deal with these very, very critical problems moving forward.

I'd like to go to one other topic and then I'd be glad to take some questions and have a conversation with you.

I had a chance last April to travel to India and meet with Vice Admiral [Anil] Chopra, my counterpart, and discuss the attacks at Mumbai. I've had the chance in the last year to visit with my partners in the Western Hemisphere and talk about the threat of self-propelled semisubmersibles in the drug trade. We have just talked about the challenges in the Horn of Africa. I would submit to you that the thread that goes through those three different threats is unregulated small boats and the linkage of unregulated small boats to Maritime Domain Awareness.

Under international law, the cutoff for regulation under our treaty system is 300 gross tons, generally. [At] 300 gross tons and above, there are requirements, if you're a contracting nation, to carry AIS [Automatic Identification System], to have long-range tracking, to create visibility and transparency. And that is good. Since the attacks of 9/11, this has all happened through international agreement at the International Maritime Organization, including the International Ship and Port [Facility] Security Code. But, I would submit to you, we will not achieve Maritime Domain Awareness, we will not make the seaways safe the way they need to be, unless we take on the issue of unregulated small boats.

Now, I say that, knowing that I'm not very popular in my own country for saying that. I had somebody from one of the boating safety manufacturing organizations who came up to me a while back and said, "Admiral Allen, driving is a privilege and boating is a right." This is a very tough group to deal with.

The other group in our country that's very difficult to deal with is commercial fishing vessels, which are virtually unregulated. If we find a fishing vessel at sea that's operating unsafely, we can terminate her voyage, but we cannot make an inspection of that vessel a condition of operations in getting under way.

So what I have done in my tenure as Commandant, and I'm just over my third year, [is to] engage in national discussion about the threats of small boats and where we need to go. Two years ago in Washington, we held a small-vessel security conference and we focused on four scenarios. One scenario was the use of a small boat as a standoff platform for a shoulder-held weapon in or around an airport near water. The other one was a way to introduce a weapon of mass effect into the country. The third one is a waterborne improvised explosive device and the fourth scenario, even though it was two years ago, was the Mumbai scenario, bringing a terrorist group ashore, via small boats, to perpetrate an attack.

I did this knowing that it would not be popular in my country, but I did not want to go through my tenure as commandant and not at least have the discussion, raise it up and get visibility [for] it. Things like driving AIS carriage requirements below the international limit [are] a significant issue around the world. There are many countries in this room that have far stricter guidelines and greater transparency than the United States of America does. Singapore comes to mind. Ecuador has more stringent requirements than we do.

My intention at the next general assembly of IMO is to deliver a speech on transparency of small boats and see if I can't start to gather a consensus among the nations to create international standards that everybody would have to comply with. I'm not sure what the parameters are. It could be length, it could be horsepower, it could be weight, but I believe we could do better than we are. I believe we must do better than we are because the vulnerability is too great. Now, the threat varies depending on where you're at in the world. There are many places where there is a demonstrated ability to use these small vessels to be very, very effective in attacks. I don't think we should wait for an event to do something about it.

So as we move forward, I'm going into my last year as Commandant and you may see some clippings where I'm going to get much more vocal about this, okay? My pension's assured, I think.

The last topic I'd like to talk about, and then I really would like to answer any questions or have a discussion, involves cargo security. This is a significant issue in

the United States and one that I have responsibilities for as the Commandant of the Coast Guard. There is a particular concern about certain cargoes; liquefied natural gas would be one. But there are many other cargoes out there that are carried that can cause serious consequences: ammonium nitrate, chlorine, other certain dangerous cargoes. For that reason, last week in Washington we convened a cargo security conference to take a look at the threat posed by cargoes, how to reduce that threat, and, again, how do we, from a whole-government approach, take actions to reduce the vulnerability and the implications and the consequence of a cargo security event happening. Again, we will make that report public and it will be published sometime in the next couple of months moving forward.

I guess I would sum up by saying first of all, he's not here, but I would like to thank Gary Roughead for the opportunity to collaborate on the [Maritime] Strategy and I think it's been very beneficial for two reasons. Number one, it has allowed us the ability to talk to you at gatherings like this about the interaction between marine-type organizations, coast guard organizations, and navies. I think, on the other hand, it has also allowed us to take a broader view, and I was particularly struck with Dean McFadden's presentation. He said it was a busy slide and it briefed ugly. Folks, government is ugly, you know; but it's our government, right? I think coming up with solutions that integrate whole-of-government approaches is what this strategy ultimately is all about and it extends to the international context. Recently, we had the tsunami in the South Pacific that affected American Samoa and Western Samoa. Our ability to mobilize aircraft and get relief supplies down there was key. In fact, a Coast Guard C-130 flew the governor back to Pago Pago from Hawaii, where he had been for a conference.

During the process of that response, I was in contact with our folks from New Zealand. General Jerry Mateparae [Chief, New Zealand Defence Force] and I communicated with each other through our staffs and with Admiral [Timothy J.] Keating [Commander, U.S. Pacific Command]. While there were not a large number of people that were involved in that, it was a significant impact on those populations. I believe that we did a better job in responding to that event today than we would have two or three years ago, absent the strategy having these discussions, conducting the outreach, and going around the world talking to our partners about the problems, sharing best practices, and learning how to cooperate when these events occur.

So it's my pleasure to be here this morning; it's always a pleasure to be with all of you. I will expand on Gary's statement. You all are our shipmates and it's been a great three years that I've been able to work with you and I appreciate it. I will be retired by the time you have another International Seapower Symposium, but I will be interested in everything you are doing. I will consider all your friendships lifelong friendships, so thank you very much. I'm not sure who the moderator is, or who gets it from here. Questions? Okay. About fifteen minutes, yes.

DISCUSSION

Vice Admiral Homero Lajara, Dominican Republic:

Admiral Allen, it's a pleasure to be here with you, sharing this symposium with you.

I just wanted to share with all of you our experience, the one that we had working directly with the U.S. Coast Guard, as we established in the Dominican Republic the International Ship and Port Facility Security Code, ISPS. This is an international program that was established by you, the Coast Guard, and thanks to this, our country was able to successfully implement this.

We also should mention what we did in the fight against illegal immigration and drug trafficking in the Caribbean. It is our pleasure to have two representatives from the U.S. Coast Guard in our country and we are working in the Port State Control Program.

The types of action and the cooperation we have had with the Coast Guard are a tool, a basic tool, that we need to be able to control the sea and the Caribbean area, because we are in a very strategic place. We have more trade, but we also have more drug trafficking and illegal immigration in the area. So I just wanted to mention how successful our bilateral operations have been and I also would like to say that we have to work together and share more training and equipment and keep on fighting the regional crimes. Thank you, Admiral Allen.

Admiral Thad Allen, United States:

Gracias, *Almirante*. The admiral raises a couple of very good points.

When I talked about integrating our efforts, one of the areas is the International Ship and Port [Facility] Security Code. In many countries, the local control of the ports and the security of the ports may fall under a transportation ministry or another ministry other than the defense ministry. But when raised to a certain level of concern or a watch level, then there may be the involvement of the armed forces, when it exceeds the capability of local port authorities. So this is another area where a whole-of-government approach is required to make sure there is an effective and efficient hand-off as the threat level rises and different capabilities are needed.

I would also add that our cooperation with the Dominican Navy has helped us perfect a technology we think is going to be very, very useful in the future. In Mona Pass, the body of water that separates Puerto Rico and the Dominican Republic, we have started using wireless biometrics to actually take fingerprints and wirelessly check them back to a database and find out whether or not there are outstanding warrants, and whether or not we've got a recidivist, a felon, attempting reentry. That's been very successful. We've now expanded that up off the north coast of Haiti and into the Straits of Florida, between Florida and Cuba, as well. So, thank you, sir, for the comments.

Brigadier General Zakariya Mansoor, Maldives:

Thank you very much, first of all, for the very elaborate and eloquent informative presentation that you have given and also for the continued support for maritime security and safety of our region and our country.

I'm a very firm supporter of the small-boat operations regulation. I'm sure it is very important that the small boats that operate within the Maldives and around in our EEZ need to be regulated or monitored in one way or the other. So I'm also looking for a way to regulate our fishermen and our transportation boats moving around the Maldives. I think the issue that you have raised will be taken to our political-level authority to discuss in the IMO meeting. So, if there's any suggestion that you could add, please, I will really appreciate it, sir. Thank you.

Admiral Thad Allen, United States:

Well, I will tell you my initial conversations with the International Maritime Organization lead me to believe that the current position that would be taken by that body is that the internal regulation of boats below the international threshold, in this case, 300 gross tons, is the province of that nation. So I think what we are looking for as a start would be voluntary standards, best practices, and how you can deal with these things knowing that there are certain things that you cannot dictate internally. It's very hard to get international agreement when I can't even get consensus in my own country, but, I think as difficult as the question is, we should not stop trying.

Rear Admiral Aland Molestina, Ecuador:

Good morning. Here in the U.S., the Navy and the Coast Guard are separated. My understanding is that the Coast Guard was part of the Transportation Department and now is under the Homeland Security Department. In most of the Latin American countries, the navies and the coast guards are part of the navies. I think that the exception would be the Argentine Republic. However, in this dual activity, we in the navy have to work very hard to be able to control these crimes, crimes that are on the upswing right now. There are other colleagues here that have said that we have to fight against drug trafficking; however, our economies do not allow us to do what we want to do. We don't have the resources. What I want to say is that most countries that have larger economies should play a larger role so that we could work together.

Admiral Thad Allen, United States:

I thank you for that comment. I think collective regional approaches to regional problems are the very best way to attack these problems. I think in the twenty years since 1989, when we established a role for detection and monitoring for the Department of Defense in the United States, which resulted in the establishment, ultimately, of Joint Interagency Task Force South in Key West, what we have done is been able to bring what anybody can contribute, put it down there, but coordinate it, pass the information around, and do it from one central location so we can queue up what we would call an end gain for law enforcement officials, whether that's the United States or one of our partner nations, or executing a bilateral agreement.

Nobody has enough resources to do this alone, not even the large countries. The space out there that we're dealing with, you know—the oceans are the last global commons, the physical global commons if you don't deal with cyberspace, and they are largely ungoverned and there are no bright lines. There is no border. [When] you have a land border, you know you're in one country or the other. You may argue about it, but it's a bright line. We have bands of jurisdiction. We have territorial seas. We have customs waters. We have exclusive economic zones.

I think the only way you're ever going to deal with these problems is regional, through partnerships. Everybody has something that they bring to the table in terms of hemispheric leadership, training, small boats [experience]. Admiral Barrera has hosted a hemispheric counterdrug conference in Cartagena last fall. There are very many examples where, if we work collectively, we may not have the resources we need, but the resources we have are put to the best use.

I guess one more, if we have one. Yes, sir?

Mr. Samuel Kamé-Domguia, African Union:

Thank you, Admiral. As you can see, my English is very poor, so I would suggest you take your headsets, please. [Simultaneous translation from French follows]

Admiral, in your brilliant presentation, you did mention your involvement around the African coasts dealing with problems of fisheries, illegal fishing, and you did mention your cooperation with various countries, in this regard. Specifically, I would like to know if, concretely, there were any results produced in terms of seizures of boats, boats caught while fishing illegally off the coasts of Africa. That would be my first question. My second question is about drug trafficking, specifically off of the west coast of Africa. Because, as you know, we are young countries, young nations, and the scourge of drugs represents for us a real concern given the impact that could have on our populations. So are you involved, engaged on this front off of the west coast of Africa?

If I may be allowed one last point, Admiral. This is about dumping of toxic waste of all types. Is the U.S. Coast Guard involved in fighting against the illegal dumping of toxic waste, which, for us also, is a devastating factor of our marine environment? Thank you very much.

Admiral Thad Allen, United States:

Those are three very good questions. Let me start with the last one first. The Coast Guard does have statutory responsibility over illegal discharge into our waters. We are the primary response organization in the United States on the water for oil and hazardous chemical discharges or anything that is illegally discharged. We enforce the maritime pollution conventions that have been passed through the International Maritime Organization. That also relates not only to discharges from vessels, but air emissions due to heavy fuels and, actually, areas to be avoided, which allow you to control maritime habitats by establishing protected areas in and around marine sanctuaries and things like that. So, we do that as part of our mission set in the United States Coast Guard.

Regarding fisheries, and I have to acknowledge Admiral [Mark P.] Fitzgerald [Commander, U.S. Naval Forces, Europe and Africa], sitting here, [as] our partner. We kind of both deal with the European Command and the Africa Command as far as providing resources. Our resources are very, very small, but quite often, we're able to leverage naval assets, like working with Admiral Fitzgerald to actually get our law enforcement teams on Navy ships.

But I'll give you two [recent] examples and we will try and get you some more detail, because I may not remember all the facts. We've had two very successful fisheries enforcement operations. First were the Cape Verde Islands and most recently was Sierra Leone. The case of Sierra Leone was very interesting, because we actually caught foreign fishing vessels illegally inside [its] exclusive economic zone and we brought them into port. It was a very interesting thing; it was almost like the issue of piracy—once you got them, what do you do with them? And it begged the issue of whether or not there were statutory provisions in place that would allow prosecution. So one thing I would tell you, based on our experience, as we start to look at illegal fishing and what we're trying to do about it, we need to make sure

that the proper statutes and codes are in place to allow for a successful prosecution once something is detected. I think sometimes that's not thought about and, when you start to bring them to port, then the issue[s] [are] what crime did they commit, is it punishable under statutes, and can they be brought to trial?

Now, all that ultimately happened, but since it had never happened before in that country, it took a while to kind of work through the legal issues associated with it. That's the reason that you kind of need to think about that ahead of time. We can [be] and have been effective in fisheries patrols off the west coast of Africa.

[A] final thing on drugs. In the last three years, we have seen a significant diversion of cocaine coming out of South America to the west coast of Africa and the Iberian Peninsula. It is clear, undisputable, that there is increased cocaine trafficking to those two parts of the world. Our European partners have set up a maritime operations center to coordinate their activities in Lisbon, Portugal, and I have visited that center. The director of Joint Interagency Task Force South in Key West has also visited there and the Serious Organised Crime Agency in the UK has been involved as well.

There are some intelligence gaps about exactly how much is moving, where it's moving, and how it is moving, but it's undeniable that there has been a shift in cocaine trafficking. Now, the majority goes north, but there are two flows that have emerged—one, west coast of Africa, Iberian Peninsula; the other one, Dominican Republic and Haiti—that we're very concerned about now and working with our partners moving forward. That is something we're going to have to come to grips with. Right now, we're doing the best job we can in trading information.

I think it would be useful for the African Union to take a look at the coordination mechanisms that have been created in the Caribbean through bilateral agreements on how we patrol, how we exchange information, and how we operate in and out [of] and close to the territorial seas of sovereign nations. I think there's much to be learned from the last twenty years' experience we've had in the Caribbean and I'm sure we'd be glad to share that with you.

Thank you very much. My pleasure to be here this morning.

6

Panel Discussion Three
Leveraging Cooperative Effort to Enhance Maritime Security Operations

Moderated by
Rear Admiral Ahmed al Sabab al-Tenaiji
United Arab Emirates

Panel Members:
Rear Admiral Nils Wang, Denmark
Admiral Guillermo Enrique Barrera Hurtado, Colombia
Mr. Samuel Kamé-Domguia, African Union
Vice Admiral Ishaya Iko Ibrahim, Nigeria
Vice Admiral Thisara S. G. Samarasinghe, Sri Lanka

Associate Dean Vincent Mocini:

I would just like to say a word about the dinner dance last night. I think it was a great event. It was the first time we've done it over at Belle Mer. I think it was an excellent location for the dinner dance and I have to say that, after participating in my third ISS [International Seapower Symposium], the dancing prize has to go Rear Admiral and Mrs. Grenstad from Sweden. Of course, they were not the only dancers, but they were, enthusiastically, the first dancers.

One other thing that I would like to note this morning—I'd like the delegates from Peru to stand, please. Rear Admiral Caballero and Rear Admiral Ormeño, I know you're here. Yesterday was the 188th anniversary of the founding of the Peruvian Navy, and so I ask all the delegates to join me in a round of applause for this significant event.

[Applause]

So we're going to begin the day with the third panel discussion, *Leveraging Cooperative Effort to Enhance Maritime Security Operations,* and you can see the names of the panel chair, Admiral al-Tenaiji, and the other flag officers in front of you. In a moment, I'll ask them to come to the stage. Upon conclusion of this panel discussion, we'll move immediately to the same venues for lunch as yesterday; delegates in the Naval Staff College wardroom and the staff in Mahan Rotunda. Then, I'd like, if possible, all the delegates in Colbert Plaza by 1330, so we can begin to set up for the photo and we will have a diagram out there and some staff to assist you in your seating. But, as I showed you in the photo yesterday, it will be a trapezoid-shaped formation with the first four rows seated, and those seats will be by name. So the staff will help you find your assigned seat. The ones seated will be primarily the chiefs of navy and chiefs of delegation. Then, standing behind, will be the other

delegates and there will be individual places marked for you to stand so we hope we get a nice formation. Hopefully, by 1330, the photo is completed, [and] we will move back into Spruance Auditorium, where we will present the breakout group seminar reports.

After that, probably about four o'clock, Admiral Roughead will close the Nineteenth Seapower Symposium. This evening is a free evening for the delegates remaining. For those that would like to have dinner in the Hyatt, there will be a dinner provided in the Hyatt. If you have other plans that might include some local establishments in town, I don't own any of them, so I'm not going to mention any by name, but I hope you enjoy the last evening in Newport and if you are leaving this afternoon or tomorrow, as most of you will be, I wish you good travels.

So, without further ado, if Admiral al-Tenaiji and the members of his panel would take their places on the stage, we will begin panel number three.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

[Translation from Arabic follows][1] Admiral Roughead, thank you for inviting us to attend this symposium. Today, I am proud and happy to be working among this group of distinguished figures and to be chairing the Third Panel of the Nineteenth International Seapower Symposium. Today is the fortieth anniversary of this symposium, and this demonstrates a long-lasting commitment. Thanks are also extended to Rear Admiral Wisecup for hosting this activity at the distinguished Naval War College, the college that I am proud to be returning to today as Commander of the United Arab Emirates naval forces, fifteen years after arriving here for the first time as a student on a leadership and staff course.

Distinguished colleagues, generals, naval forces and coast guard representatives, and civilian officials: I do hope that your trip to Newport was easy and convenient.

You undoubtedly agree with me that the benefits of this conference will be numerous: it will encourage the spread of regional and international initiatives that will serve as the principal means of ensuring maritime security, stability, and safety and, hence, collective prosperity.

After hearing the guidelines [that were presented to us], we come together for this third and final plenary panel to start our discussions about its topic. This panel's goal is to create the means for expanding cooperative efforts through regional maritime partnership, to build mutual confidence, to develop cooperation and joint action, and to promote multilateral opportunities for training so that significant responsibilities may be assumed to achieve the common goal of maritime security. And that is considered one of our most important priorities.

In the very near future the naval forces of the United Arab Emirates will assume command of Combined Task Force (CTF) 152, just as the naval forces of the Kingdom of Bahrain did in 2008. This demonstrates the determination of the countries of the Gulf Cooperation Council—and of the United Arab Emirates—and their commitment to the success of building an effective partnership that seeks a common maritime goal for all countries around the world. Today, the Arabian Gulf,

1. This translation was made by the U.S. Department of State Office of Language Services, Translating Division. LS No.07-2010-0103 Arabic/English SK&JH/JH&SK

including the Strait of Hormuz, represents a choke point for the world trade system, and it is one of the world's most sensitive maritime strategic and commercial theaters. As chair of this discussion session, I seize this opportunity to express my hope that all the states that are located on the shores of the Arabian Gulf, including Iran, will work together to secure the region. I am also hoping that international participation in CTF 152 can be expanded.

All naval units, and particularly the coast guard, are involved in maritime security. In this regard I would like to point out to you the significant task that the Emirates' coast guard is performing as a component of the Emirates' armed forces. Since it was established four years ago, [our] coast guard has been securing our territorial waters by reducing [the number of] maritime crimes. With regard to the various [unconventional] threats [that we face], we have to be more cooperative. To become [more] effective [in this regard], an agency for protecting vital installations and facilities was established last year, and the coast guard and elements of the maritime police were combined.

Let me shed light on some aspects of the symposium, given the strong opportunities [it affords us] to leverage cooperative efforts. There is, for example, the Indian Naval Forces' Initiative that is associated with the Indian Ocean Naval Symposium (IONS), which is a regional initiative.

A technical symposium that was attended by representatives of eighteen navies from the littoral states of the Indian Ocean was convened three months after the IONS. Some of the issues that were discussed at that symposium were setting standards for joint action, technical cooperation, and procedural interoperability among IONS states, and increasing logistical support to ships upon deployment in the Indian Ocean region. And last week a technical workshop was held in Mombasa, Kenya. There is no doubt that naval cooperation among the littoral states of the Indian Ocean is proceeding apace.

Through this goal of maritime cooperation a maritime security conference was convened in the Emirates in July 2008, and another conference on maritime security was convened in May 2009. I am pleased to remind you that in the next few months the Emirates will host in Abu Dhabi the second IONS. The United Arab Emirates will chair this symposium in March 2010.

Maritime security has been a topic of major concern throughout history for countries that are seeking to facilitate commerce. Ever since the earliest ages of history maritime piracy has been a common threat. Then the time came when equilibrium was achieved in combating acts of piracy.

Currently, piracy within Somalia's [territorial] waters has begun to spread to areas that are far from the coast, and that has attracted the attention of countries around the world and demonstrated the need for maritime cooperation. At the present time, two initiatives from the United States and from European countries have shown that addressing this matter related to maritime security is imperative. Putting an end to this problem requires close international cooperation. We thank all the countries that have contributed to these efforts. Putting an end to such problems requires us to work in a united fashion on a comprehensive project.

Our efforts and our support for finding an appropriate collective solution must meet with determination and strong resolve. We must all remember the success that was achieved in Southeast Asia and in the Strait of Malacca in the war against acts of

piracy in order to secure the seas and to achieve the objectives of efforts to combat piracy—objectives that were achieved through cooperation among all the partners.

To follow the schedule, I would like to remind you of some procedural matters. As far as the two previous sessions are concerned, the time designated for a panelist was set to between ten and twelve minutes. Signals to the speakers [utilized during those sessions] remain the same: a yellow card indicates that the speaker has from two to five minutes left, but a red card means that the speaker's time is up. Now that we have reviewed the arbitration rules for soccer, we will review those for tennis. A question-and-answer session that will follow after the panelists complete their presentations will be open. Members of the audience [who may wish] to ask questions or make comments will find a microphone hanging on the back of the seat in front of you. Please state the name of the panelist to whom a question is addressed.

Now that these rules have been made clear, I will introduce the first panelist. He is Rear Admiral Nils Wang, chief of maritime operations for the Danish Navy. He will discuss piracy-combating operations.

Thank you for your attention.

Rear Admiral Nils Wang, Denmark:

Thank you very much and I would like to say thank you even though Admiral Roughead is not present as I can see right now, I would like to say thank you very much for the exceptionally good dinner yesterday and also thank you to you, Rear Admiral Wisecup, for hosting this excellent venue in these beautiful facilities.

I will dare to tell a little story from my younger days at sea and, hopefully, they might not count fully in the fifteen minutes scheduled. It's about maritime communication, for better and for worse. I was serving as a chief of staff in STANAVFORLANT [Standing Naval Force, Atlantic] in 1999–2000 and after spending eight months in a Canadian destroyer, serving a Canadian admiral, we had a change of command to USS *Moosbrugger* [(DD 980)] under an American admiral. I was there as chief of staff, as I mentioned, and, of course, I had to do the briefing and the continuity between the two commanding officers and make sure that the new admiral that I hadn't met yet was fully briefed on what was going on. I, of course, e-mailed a lot with my new boss and every time there was a decision that was reaching into his period, I sought his advice and that went very well.

When we arrived in Halifax, there was a lot of turmoil, as there is when you have to change the flagships, and all the ceremonies; so, after a couple of days, my new boss from [the] U.S. Navy came to my stateroom and said, "Nils, you and I, we have to learn to know each other better, why don't we go to a steakhouse in Halifax tonight and have a good talk." I thought it was a splendid idea. So later on that evening, we went to a steakhouse in Halifax, I can't remember the name, and this young waitress came to our table and asked what we would like to eat. When she heard how we spoke, she said, "Hey, where are you from, guys?" My American admiral said, "Well, I'm from the U.S. Navy, I'm from Washington, D.C. and this is my good friend Nils Wang from Copenhagen, Denmark." Then the waitress said, "Wow, how did you guys meet?" and then I heard myself say, "On the Internet."

[Laughter/Applause]

I met him again in Singapore recently and we are still good friends. This is my third ISS and I would like to use the opportunity also to say that although we sometimes feel that things are moving very slowly, it strikes me, actually, how fast we

have progressed on many of the issues that we have discussed during these last couple of days. When I think about where we were with Maritime Domain Awareness in 2005 when I attended the ISS for the first time and then look at how we have been presented with the connectivity between regions and all the rest of it, I think it's been tremendous progress, actually. I think it indicates that we, as sailors, are extremely good at finding solutions together.

Since I'm here as the acting chairman of the Chiefs of European Navies, it might be relevant to give you just a quick overview to those who aren't that familiar with the CHENS, what it's all about.

The CHENS is an informal, independent, and nonpolitical forum of Chiefs of European Navies. The forum was formally organized in 1994 and had, at that time, twelve member nations. Today, we are twenty-five member countries in the CHENS.

CHENS is what you could call a maritime think tank which is exchanging information on navies, and naval military views, and we are producing maritime strategic and operational documents. The viewfoil presented here shows you the formal papers which have been endorsed by the CHENS over the last years.

Today, I will present you with a brief update on what the CHENS are doing right now, and I was also asked to address the counterpiracy problem during this session and, with a little luck, I'll be able to do both at the same time. Maybe from a little different angle than you would expect.

I feel tempted to start with a motto that has been repeated over and over again during the last three days by several of my distinguished colleagues, namely, the motto "no more sea blindness." You can almost imagine it on a bumper sticker.

I'm not sure that we will succeed in curing the world of sea blindness from one day to the other, because sea blindness is created by a built-in paradox, or a system error, you might call it: namely, 75 percent of the earth is covered by water, but 75 percent of all joint staffs are manned with army officers. Therefore, you will always have a land-centric view on things when it comes to cooperation and jointness. This, of course, gets even worse when it comes to many political-civilian organizations, including governments, for that matter. So to fight sea blindness is therefore a constant struggle uphill that all naval officers should make their mission in life.

Let me try to be a little more specific.

If I could be a little provocative, you could call this building [the UN headquarters] the very epicenter of sea blindness in the world. The maritime expertise and insight in the Department of Peacekeeping Operations [DPKO], in the UN headquarters, is close to zero and this is, in my mind, a major obstacle to many of the ideas and visions that we have talked about over the last couple of days, simply because most of them require a global effort.

Last year, the CHENS decided to approach the UN in order to make them aware of maritime security issues. My predecessor as chairman in the CHENS, Captain Andreas Ioannides from Cyprus, who is present here today, wrote a letter to the military advisor of the DPKO, [Lieutenant] General [Chikadibia] Obiakor [of Nigeria]. As a follow-up to that letter, and in my capacity as being the chairman this year, I visited the DPKO in the UN headquarters last Monday before I came up here. I met with a deputy military advisor [for peacekeeping operations], Major General [Abihijit] Guha [of India], and present was also a colonel and the collective

maritime expertise of the DPKO, all five of them. I had the opportunity to inform Major General Guha that the CHENS, during the next year, have decided to have a special focus on maritime capacity building around Africa, on the African continent, and that the three permanent working groups under the CHENS organization have been directed to focus on the challenges, perspectives, and the potential of maritime capacity building.

It is my ambition as a chairman that the result of that work will be a paper that right now has the working title "Adding Value to Maritime Capacity Building in Africa, a CHENS Approach." It is also my ambition to be able to deliver this work during the next CHENS summit, in Copenhagen in August next year, by the way, at the same time when the Danish Navy will celebrate its 500-year anniversary.

It is my impression from the meeting in New York that the exposure of maritime challenges and operations related to the piracy operations in the Gulf of Aden has had an impact on the attitude towards Maritime Domain [Awareness] in the DPKO. It is, therefore, my personal feeling that the timing is right to promote maritime thinking in the top of the UN, which, in my mind, is quintessential if you want to reduce sea blindness, as I had mentioned earlier, in general. I recognize the tremendous work done by the IMO as a UN organization, but you can only create a maritime strategic vision if you impact the strategic leadership in an organization.

When I look on the operations in the Gulf of Aden, it contains all the ingredients required to be a perfect matter for UN-led operations, if you ask me. If you go back in history, I doubt you would be able to find any example of a military operation where so many countries are working together, cross-religion, cross-continent, cross-alliances. On top of that, it is an operation that protects free trade, which is the prerequisite for growth and prosperity and, therefore, an operation that almost anyone on this earth can support—in other words, an operation with the exact same goals as the very *raison d'être* of the UN.

Admiral Thad Allen used an expression yesterday in his brilliant presentation, "a whole-of-government approach," with reference to dealing with maritime security. I don't think you can have that whole world nation approach without a UN that also thinks maritime at the strategic level.

Why maritime capacity building? Well, through maritime capacity building, we have the ability to target the root problems of many of the challenges that we face at sea. We have touched upon that several times during the last days, from various angles, and many have stated that solutions to some of the challenges at sea should be found ashore. What we can do at sea with warships and coast guard cutters is often dealing with the symptoms, which is necessary, but the long-lasting solutions can only be achieved if we support the establishment of sustainable governmental structures that could control the maritime domain within the exclusive economic zones. This is not an easy task and it requires a sustainable economy and support of world organizations, such as the UN.

Last week, I attended the North Atlantic Coast Guard Forum in Iceland, where the Food and Agriculture Organization—FAO, under the UN like IMO—briefed that the annual global amount of illegal fishing is estimated to be worth 24 billion U.S. dollars every year. Just to put it into comparison, that is exactly five times the Danish defense budget. Approximately 50 percent of that illegal fishing goes on in the vicinity of the African continent. Imagine the impact if just a small percentage

of that money was channeled into the respective owner countries through a UN-coordinated effort using naval and coast guard forces together with other relevant agencies. FAO furthermore reported at that occasion that, concerning the problem of encountering illegal fishing around Africa, much of the maritime capacity-building requirements are basic seamanship skills—for example, how to maintain outboard motors, or how to execute a boarding in a safe manner. It doesn't have to be complicated necessarily.

As I mentioned during the executive session the other day, maritime capacity building requires close cooperation between all maritime agencies, including navies and coast guards. I think that the U.S.-led Africa Partnership Station is a brilliant example of how maritime forces can come together and provide maritime capacity building from the sea. I think this type of operation can prevent future maritime problems. I also believe that a project like this could be a UN undertaking in the future, but it requires that we get rid of the blindness and create maritime vision instead.

Thank you very much.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

Thank you, Admiral. I would like now to introduce Admiral Barrera from Colombia. He'll be speaking about the "International Cooperation for Maritime Security: The Most Effective Strategy against Narco-traffic."

Admiral Guillermo Barrera, Colombia:

Good morning, ladies and gentlemen. Thank you very much in the name of the Colombian Navy for hosting us today, for [allowing] the opportunity to speak with so many good friends. Some of them I met here, in this Naval War College during my time here in 1993, as my classmate Admiral Verma mentioned two days ago. My classmate and I think we are the only ones who are still on active duty, because I learned that our very good friend, [Vice Admiral] Tamotsu Kato [of Japan], left service about three months ago. And thank you once again, because I met most of the Latin American commanders or chiefs of the navies here in Newport two years ago in my first ISS.

Today I will talk a little bit of how my country, which ten years ago was a failing country, has been changed because of cooperation, because of the combined and cooperative effort in the area. I will talk about a little part, but a very important one, narco-traffic, which is the impetus for cooperation in my country.

In the local scenario within Colombia, we have the crops and production. In the national scenario, we have narco-traffic kingpins. But then when we go to the regional scenario in America, we have distribution, traffic, precursors, drug distributors, [and] money laundering and flow.

In the international scenario, which concerns everyone here, the threats are transnational crime, narco-trafficking liaisons, international demand, [and] money laundering and flow. This is the scenario all over and around the world with narco-trafficking and, as I was talking this morning with Dean McFadden, the problem is not only the social, which is very important, but it's the destruction of the will of the youngsters that will be the future of our countries. If they are not able to govern themselves, they won't be able to govern their countries.

We have been talking for these three days about these matters. Many problems are transnational threats, difficult to enforce by control of the sea. You have heard that this is not something that you can solve by yourself. One country, alone, cannot solve it. But look at the impact of drugs on society, you can count many examples; in politics, decisions have been made in many countries to try to deal with the problem and sometimes they have not been successful; on the economy, of course, in my country, definitely; on violence; and, of course, on ties to terrorism, which could be very closely related, if they find a way.

This is, once again, the scenario. We have six million square nautical miles in the area and 9 percent of that is under the jurisdiction of Colombia, but 50 percent of the illegal traffic moves through my country, which is estimated by JIATF-South [Joint Interagency Task Force South] at around 1,500 tons of cocaine this year. That's a lot.

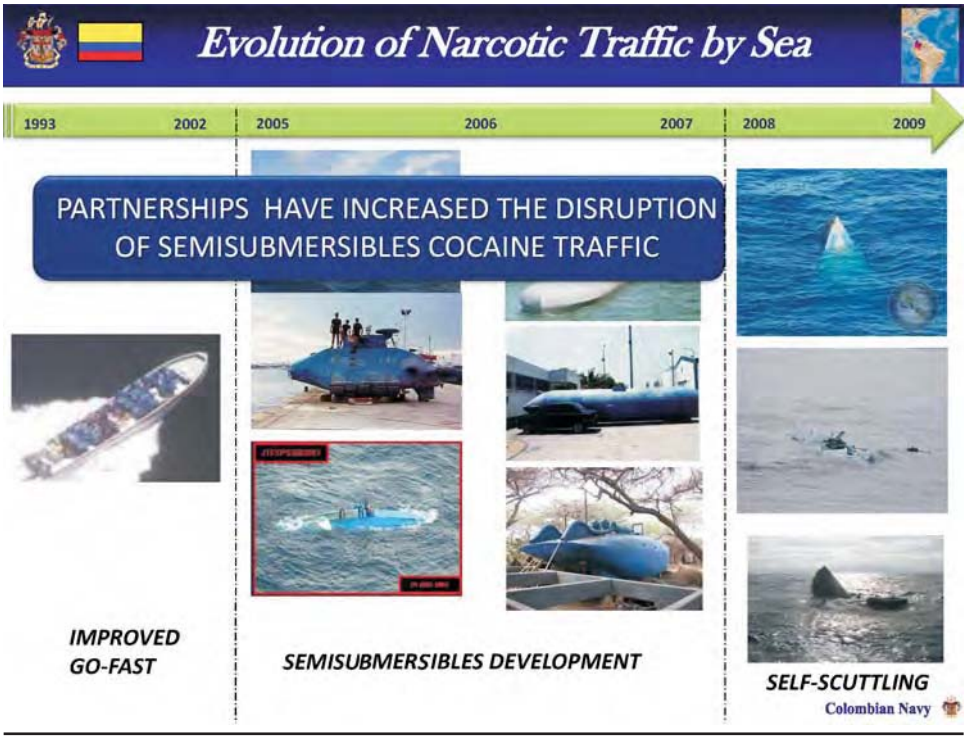
How are we working together in this area? Yesterday, Thad Allen mentioned these two export lines besides this one which goes to Africa and Europe. This one goes through the country of my dear friend [Admiral Jorge Pastor, Mexico], who has been fighting real hard with no capacity and we are working together to solve the problems they have. We give the small resources that we have in the area. This is where the Colombian Navy has been involved, but I have to tell that the Colombian Navy has the [functions of a] marine corps and the coast guard together within the navy. As it was mentioned yesterday, most of the countries in Latin America cannot afford to have separate services. Some countries have it, like in Argentina, which are very strong services; but, in Colombia, we cannot afford that, so they are combined.

Operational emphasis for the navy covers coca crops and processing, coca bases, laboratories, the transportation of narcotics via rivers—we have more than 2,000 miles of navigable rivers and that means that the navy has to control a lot of rivers—accumulation points on the coasts, and maritime transportation and international distribution. This is the spectrum of where we are working. Countering drug use and the laundering of assets produced by drug trafficking is not our navy's problem, but we support efforts in these areas with intelligence. Recently, there was a combined operation between the Mexican Navy, [with Admiral] Jorge [Pastor], who is present here, and the Colombian police. They were able to catch more than $35 million in one single day that was bound for South America to buy more weapons.

But sometimes, you have to deal with these issues when you have the people in the military service that abuse drugs. Then you have to deal with it, you have to fight with it, and you have to work with the people. We have been working on the basics, the respect for human dignity, and that helps the youngsters in the services to build up enough confidence in themselves, but it's not easy.

This is the improved go-fast boat. As you can see, these blue things here are 55-gallon tanks. The whole boat is a big tank of gasoline. They have got a space here and here to carry between 1.5 and three tons of cocaine. It has a very low radar profile and is very difficult to detect—with good radar, no more than four nautical miles and if the sea is getting rough, it is more difficult. So this is a big problem in which air capability is quite important.

These are the semi-submersibles and this shows the evolution of them. This is the one we caught about twenty years ago, very unique. They never submerged, and

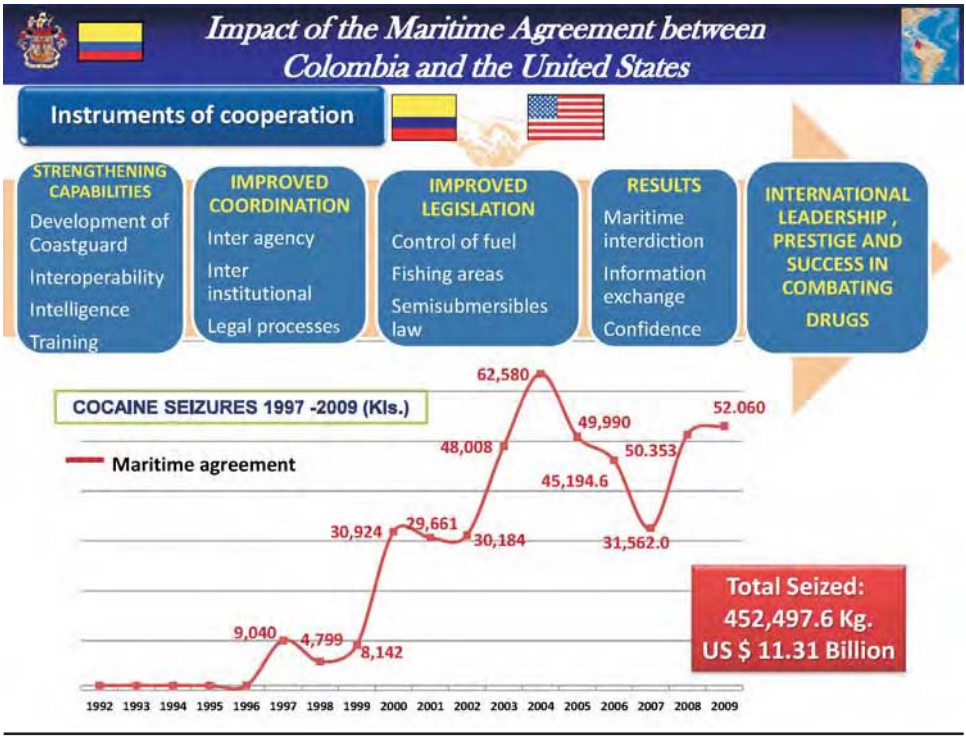


they had to be on the surface, but look at this radar cross section. It's nothing—very hard to detect except from the air. That's why Thad Allen mentioned yesterday the huge success of the Mexican Navy when they were able to repel from a helo exactly on top of the machine. This is probably the latest generation and this one was built about 15 miles away from the sea. Naval engineers were at work here, two screws, one left, one right, just like the normal thing and all the protection—you can see here the protection for these machines. We destroyed it right there and it was capable of carrying up to ten tons of cocaine.

What they do now when they have been discovered is just sink the vessel. They open the bottom valves and it goes down just like that; in two minutes, it sinks. No proof. You cannot bring them to court. We have been working together with the Mexican Navy and the United States to change the laws so you can prosecute these people that go in those boats. We already have it in Colombia. It was almost an eight-month process through the Congress in order to approve the law.

These are some of the things we have been improving through cooperation in the area:

- Development of coast guard interoperability.
- Intelligence and training, that's very important.
- Improved coordination, interagency, interinstitutional, and legal processes, as I was mentioning.
- Improved legislation for the control of fuel, fishing areas (that's very important, because sometimes they go to fishing areas and the fishing ships supply the provision of gasoline), and semi-submersibles law, as I was mentioning.



- Maritime interdiction has been increased and I will tell about one of the results we had getting together.
- Information exchange.
- And, this is very important, confidence. Building up confidence means first you have to open yourself. If you go to talk with your neighbor, with the CNO of the next navy, just thinking "I need" probably won't work. The first thing should be "what I am able to give you." Then let's start together.
- And, of course, international leadership.

These are the results of the agreement between the United States and Colombia that was signed in 1997 and it took about two years of negotiation. It was real hard, but I think that was probably the best we have ever achieved in my country. And look at the numbers. These are thousands and thousands of kilos, so we are talking about tons of cocaine. But the same has been happening with all the neighbors. I would mention, as an example, [Rear Admiral] Juan Santiago [Estrada García] from Nicaragua, who's with us here today.

In fact, be loyal to our governments. We solve the problems at the operational level; we are never allowed to take them to the political level, as it is not necessary.

So these are things that have allowed increased confidence—talking to each other, directly by phone, but also, my dear friends, using the Internet.

Information and intelligence sharing are quite important. That is the first step after you have the agreement. The last one that we have put in action, I would say, was with Costa Rica. The minister of the interior came to my country about two

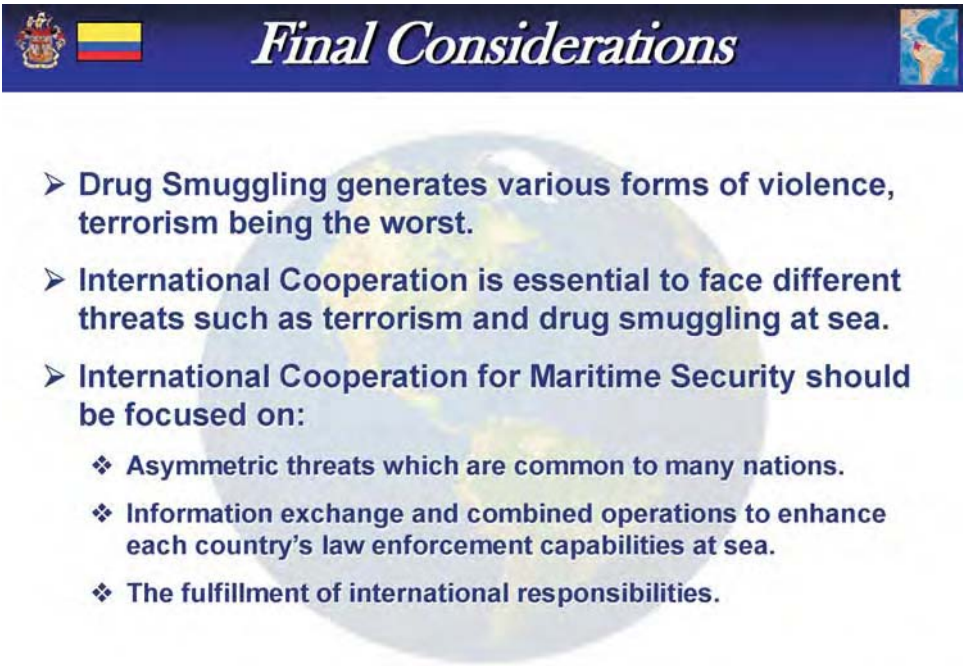
weeks ago. We will be sending our people in November to start the cooperation in that area. The first part is to start talking about intelligence, real-time intelligence.

Combined and coordinated operations are quite important because nobody has all their assets at sea to be able to confront the problem. And, in the case of Costa Rica, the minister was mentioning they have no navy, no army. They are starting to build up a coast guard and that means a lot of effort and that means a lot of help is needed for this country that really wants to fight the narco-trafficking.

Logistical and economical support is quite important. Sometimes, you have to refuel at sea and, for some countries, they don't have the capability.

There must be an implementation of improved strategies. Let me show you one example of that. Here, exactly here, two years ago, it was suggested to build up a symposium on narco-traffic at sea [Simposio maritime contra el Narcotráfico en el Continente Americano]. That symposium was realized in November of last year [19–21 November 2008 in Cartagena, Colombia] with the heads of twenty-six countries, including the ambassador for the Netherlands and eleven international agencies.

Two results came from that meeting. The first one was the International Maritime Analysis Center for Narcotrafficking. Seventeen countries came down to Cartagena last April to work on the technical matters and they produced a paper that was sent to all the navies. We already have the answers back from three of them and we will be very grateful if you, the rest of the countries of South America, can answer the questions that were asked when we sent the paperwork that was created by these seventeen countries, prior to the next meeting, which is going to be held by Admiral [Homero] Luis [Lajara Solá] in his country [Dominican Republic] next year [27 June–1 July 2010], when the CNOs can approve that paper, which will



create the International Maritime Analysis Center for Narcotrafficking. That will be able to produce enough information, for example, to be played here in the game at the War College next year, if possible.

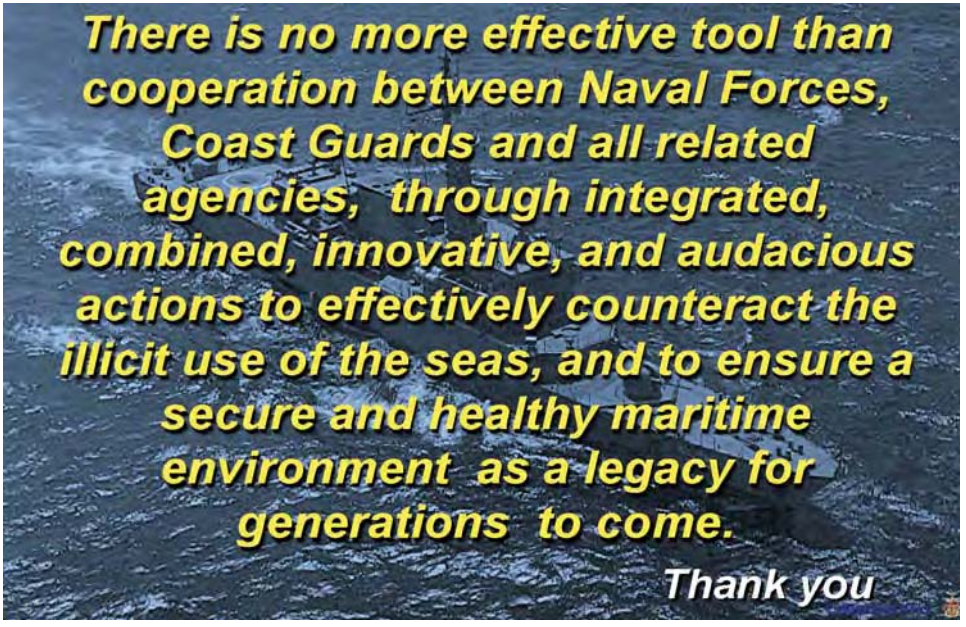
The other product was the creation of the International School of Maritime Interdiction: eleven countries in the first course, twelve countries, right now, in the second course, which has been filled up for next month. We are learning from each other's experiences. We are sending the best people to work together and learn from each other there, to help each other. The narco-traffickers have changed continually the way they do business. We have to change accordingly.

A final consideration—drug smuggling generates various forms of violence, terrorism being the worst. That is happening in several of our countries. When narcotraffickers find they don't get their way, they will kill people. This is something that my dear friend, [Admiral] Jorge [Pastor], from Mexico, has been suffering through recently, the killing of enormous quantities of people. And, of course, in my country too, where terrorism is still alive. We are winning the war, but it's still alive.

International cooperation is essential to face different threats, such as terrorism and drug smuggling at sea, but, also, international corporation for maritime security should be focused on

- Asymmetric threats, which is not common right now for many nations;
- Information exchange and combined operations to enhance each country's law enforcement capabilities at sea;
- The fulfillment of international responsibilities; and
- Asking many of the things that you have been suggesting yesterday and the day before yesterday. I'm grateful for such wonderful ideas you have been giving us.

I leave you this:



This is the experience of our almost failing country, which now is surviving and coming back to life; where the youngsters can have a better life, a better future. As we say in the navy in Colombia, if we can save the life of just one single youngster in the world, we are going in the right direction.

Thank you very much and God bless you all.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

Now, I give the floor to Mr. Kamé-Domguia with "Developments in the African Union's Maritime Strategy."

Mr. Samuel Kamé-Domguia, African Union:

Thank you, Admiral. Admiral Wisecup, thank you for inviting the African Union to this special event. Please pass on our gratitude to Admiral Roughead, who is not here this morning. It is indeed a pleasure and a great honor for me to be here and to share some thoughts with all in the audience on the development of maritime strategy and the African Union Commission.

My goal for this presentation will be twofold: first, to explore our current challenges at the African Union and, second, to connect our discussions to the way forward. To do so, this presentation will focus on security threats to stability and development in Africa and share, as I said earlier, some views on the AU's strategic plan to address maritime affairs.

As a concept for this presentation, I would argue that in this area of globalization, maritime security around Africa is a *sine qua non* condition of global economy stability and it is certainly essential for regional and global prosperity.

The density of maritime traffic around Africa is a reality that will only grow with time and, as it grows, we will have to face a series of challenges. Some of them are known today. Some will be direct, some will be indirect, and we have reasons to anticipate that new challenges will appear in the future.

Despite all these challenges, we have to strive for a stable, secure, and clean maritime domain around Africa for a lasting stability, vitality, and prosperity of the peoples of Africa. The constitutive act of the African Union makes clear reference on the security of African people. While threats undermine the security of the people of Africa, responsibility for action lies, to a certain extent, with the AU, which is the political body of the continent.

Let's look at some of the threats to our stability and development:

- Oil bunkering. Someone mentioned yesterday or the day before that some figures are frightening. There was an article published on Reuters citing the chairman of the Niger Delta Presidential Technical Committee, who said $24 billion worth of oil revenues had been lost to oil bunkering and vandalism in the first nine months of 2008 in the Gulf of Guinea. Twenty-four billion dollars!
- Illegal fishing. Illegal fishing is an issue very important to us at the African Union. Illegal fishing severely impacts food, security, and economy development in Africa. The FAO estimates that 200 million Africans rely on fish for nutrition and 10 million rely on fishing for income. This is a lot of people. Coastal nations of Africa, both on the west and eastern side of Africa and the

northern side of Africa, could increase GNP [gross national product] up to 5 percent with effective fisheries regulations.

- Narcotics and arms trafficking. These are of great concern to us at the African Union Commission. Admiral Allen mentioned this issue yesterday. Some documented report estimates that today 46 percent of all cocaine caught in Europe airports is from Africa—46 percent as opposed to 33 percent from Latin America. As I mentioned yesterday, this is a serious threat for the youth of Africa.
- Human trafficking. Sixty percent of the world's human trafficking occurs in sub-Sahara Africa and it is estimated, in general, that 2.5 to 4 million migrants cross international borders illegally each year. We believe that organized crime groups—including recruiters, transporters and escorts, document suppliers, enforcers, support, and debt collection—all these are people involved in the human trafficking business, which earns criminals $10 billion in profit annually.
- Piracy at Sea. This is something which is damaging the global economy. Direct impact on the entire global trade leads to [an] increase of all commodity prices in Africa and in the world. Some statistics revealed that in 2007, off the coast of Somalia, we had thirty-one attacks, up from ten attacks in 2006. In 2008, we had 111 attacks and the IMB [International Maritime Bureau] has already reported more than 150 attacks since the beginning of this year. Most major coverage highlights the situation on the east coast of Africa, but, as you all know, we face the same situation on the west coast as well. If the excellent technicians are ready, I have one minute of film footage to show what happens on the west coast of Africa.

We have been hearing a great deal over the last year about the problem of piracy off the Horn of Africa. It's where U.S., European, and other navies are now focusing their antipiracy controls because, of course, there were 111 reported attacks there last year. But over on the oil-rich west coast of Africa, they had forty reported attacks last year, but the true figure, I'm told, is actually over one hundred and here's another one from just a few days ago.

Sound Track of Video Clip:

Twilight off the Nigerian coast nine days ago, and a sailor risks his life to film these pirates, as they circle a Greek-owned tanker. Without warning, they fire directly at him. Incredibly, no one is hit and the tanker escapes, but this is part of a worrying trend.

Mr. Samuel Kamé-Domguia, African Union:

The situation off West Africa, I think, is escalating quite rapidly. We've seen some fifteen reported attacks already this year and a lot of those attacks have involved violence, death, and injury. So, I think it is getting really quite serious.

Somali piracy, on the other side of Africa, has been grabbing the world's attention, with parachute drops of million-dollar ransoms and crews held hostage, then released unharmed. But the growing antipiracy naval task force off the Horn of Africa is not being matched off the west coast, where more than half the attacks are going unreported.

Now shipping companies there are bracing themselves for a major high-profile incident. And the reason I'm told why West African piracy is so underreported is that the shipping companies moving the oil there are very reluctant to put pressure on the local authorities. If anything, they'd like to keep the whole thing quiet.

[Recording interrupted]

Some of the threats we face in African waters include pollution and dumping of toxic waste. I mentioned this yesterday, and the chief of the French Navy on Wednesday mentioned the case of the oil tanker *Erika*, which in 1999 caused great damage to the environment [when she broke apart off the coast of France]. Throughout the '80s, Africa was the most popular dumping ground for some developed countries for radioactive waste and toxic chemical processing on our land. We still face the same, maybe not at the same scale, but we still face the same situation today with especially the dumping of electronic waste, known as e-waste. This is something we have to focus on, seeing as we have all these unwanted mobile phones, computers, and printers, which contain cadmium and which are dumped in Africa, supposedly for a second use.

We also have natural disasters, which are of concern. Though they are natural, in 2004, disasters caused $123 billion worth of damage. As documented in a report from the BBC, the Africa profile from 1980 to 2006 revealed that the number of people killed ranged almost [to] 700,000 and the number of people affected went over 300 million in Africa.

Let's have a look now on our challenges. At various levels, we have challenges:

At a national level, we think it is important, and this has been mentioned a couple of times during this symposium, that we focus on collaborative efforts, on information sharing, among all the agencies involved in maritime affairs. We believe that mechanism must also include local communities and interest group[s], as well as the private sector.

At the regional and continental level, again we need to build more trust among us. We need to work in a collaborative manner. We have to break the barriers that divide us, that have been dividing us for decades now, and try to align our interests in the same direction.

The South African Navy mentioned on Wednesday that they had twenty-four agencies involved in maritime affairs in South Africa and, you can imagine, at the level of the African Union, these will be multiplied by fifty-three member states. As it is shown on this slide, part of our roles, we believe, is to garner a sizable political will and promote harmonization of our policies between our nations and between the subregions, what we call the regional economic communities. We also believe that it might be interesting to organize and launch a continental campaign on the normal sea blindness issue.

The need for a Maritime Security and Safety Division in the African Union Peace and Security Department is recognized [and under development]. We can say today that this is part of the priority. Though we have very critical issues at hand to deal with in Somalia on the land, we have critical issues in many other countries in Africa. Maritime security is becoming a great concern and this is shown in a statement by the Commissioner for Peace and Security at the UN Security Council meeting held in December last year [16 December 2008].

This is what he said in his statement. I like the words "setting the tone to address maritime security" around Africa. This was the first time a leader at that level in the African Union addressed the UN Security Council and mentioned the issue of maritime security. As you might be aware, the heads of state and government of the African Union met recently and they released, for the first time, a decision on the issue of maritime security in Africa. So the momentum is increasing on the belief there will be room for greater interest in this domain.

We are striving to develop some action-oriented strategy to raise awareness at national levels, at the level of the regional economic communities, and, as I said, to make known what we are doing at the African Union in the global community.

Many people report us to be farsighted and, in this process, we think it is good that we don't work for our generation, that we don't put our objectives for even our children. We try to put them as far as possible into the future.

As you probably know, the continent of Africa, which is a huge island, has less than a percent, I think it is 0.9 percent, of the gross tonnage in the shipping industry. We believe there is room for us to build this up, maybe not in[to a] two-digit percentage, but at least not far from that in the next couple of decades. So we believe the strategy should not end at just securing the sea, but also building wealth for, creating wealth for, the African citizens.

In the process of building this grand strategy, we have identified some ends because, you know better than I do, strategy is all about linking ways and means. We have identified some ends we expect to meet in the future.

Way Forward
Key Performance Areas (Ends)

1. Capabilities and capacity building (DEBEX 27 Nov 08)
2. Engage:
   The whole PSD (11 Nov 08)
   Relevant departments of the AUC (5 Dec 08)
   Member states, the NEPD [Nigerian Enterprises Promotion Act of 1972, amended 1977, 1989], RECs [Regional Economic Communities], MOWCA [Maritime Organisation of West and Central Africa], the African diaspora, the private sector, and external partners, academies to include war colleges
3. Manuals development
4. Maritime Domain Awareness (MDA)
5. Interstate maritime boundaries demarcation
6. Strengthen regulatory boundaries
7. Build up the African sea powers

These are the key performance areas we have so far identified and we believe that this is not comprehensive. We believe the process is flexible. We believe it's a dynamic process, a lively process, and, with time, we will make sure that we don't ignore anything. We will have issues of prioritization. As you well know, we are short in terms of budget, but we don't want to leave out [anything] which is not taken into account, even if we don't address it now.

So each key performance area you saw in the previous slide is articulated into lines of action with clear objectives for each of the lines of action. Each line of action has a comprehensive plan of action.

So after we have fine-tuned our ends, we have to create some SWOT [Strengths, Weaknesses, Opportunities, and Threats] analysis teams to go and conduct the gap analysis within the subregional communities. Even at the level of the nations, they need help to express this because, as you all know, we have a long distance to go. Everybody has talked about sea blindness. This is something we have to address and, to address it, we will have to know where we are and where we have to head and what are the gaps you have to fill in.

With a better authority over our maritime domain in Africa, we believe that, at a continental level, we will be able to participate in the protection of the global trade as a whole. We believe that we will able to provide relief from natural disasters to those in peril. We believe that we'll be able to intercede when societies are torn by oil bunkering and all the other things I mentioned in the previous slide. Thank you very much.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

Now we have "Leveraging African Maritime Strategies" by Vice Admiral Ibrahim, Chief of the Naval Staff, Nigerian Navy. Please.

Vice Admiral Ishaya Ibrahim, Nigeria:

My colleagues, greetings from Nigeria, the peace-loving people of Nigeria. I feel highly honored and humbled to be invited to this momentous and historic event, which provides a veritable platform for strategic review of global maritime security concerns. I'm therefore very delighted to be afforded the unique opportunity to interact with fellow operational colleagues and other distinguished personalities on the all-important issues of combating contemporary maritime security breaches, which presently constitute a serious threat to global peace and security.

To better our understanding of the importance of the global maritime challenges, I would like to observe that this strength lies in its inherent capacity and capability to utilize all the sources and possibilities offered by the oceans for socioeconomic development of the country, including its defense capability. This aside should clearly establish a navy as a veritable instrument of national power that ensures security of global commerce and prosperity.

This further affirms the understanding that the protection of our collective interest of global commerce with regard to the twenty-first-century maritime security challenges demands a well-articulated plan of action. Such a plan of action must be anchored on building a strategic partnership and connecting our navies through collaborative and cooperative efforts for enhanced security of the global maritime domain.

It is in this regard that I consider the theme of the Nineteenth International Seapower Symposium very apt. Consequently, I will discuss African maritime security with emphasis on the Nigerian maritime domain, the Gulf of Guinea, which is attracting much attention now. Africa is bordered by the great waters of the world, Atlantic and Indian oceans and the Mediterranean Sea, with an abundance yet to be realized by their citizens.

XIX International Sea Power Symposium

"Connecting Navies, Building Partnerships"

NIGERIA'S MARITIME ENVIRONMENT

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XIX International Sea Power Symposium

"Connecting Navies, Building Partnerships"

GULF OF GUINEA MARITIME ENVIRONMENT

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I would like to provoke your thoughts here by posing this question: if Africa were to be a maritime power, how would it have impacted on the world today?

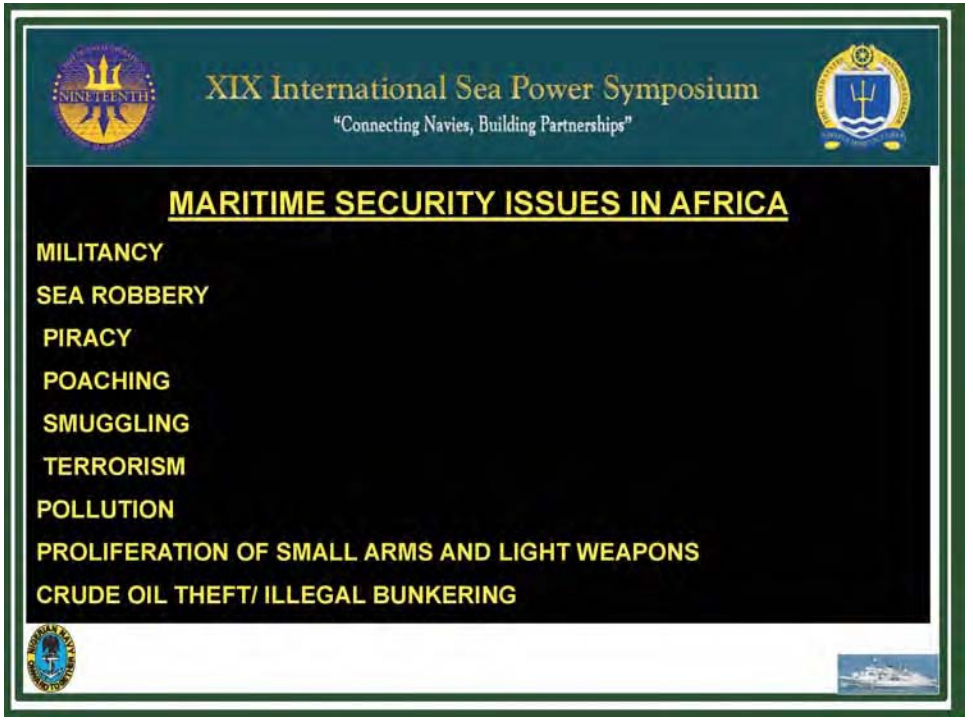
Be that as it may, let me say that Nigeria is part of the Gulf of Guinea and has a coast of 435 miles, [and a] two-hundred-nautical-mile exclusive economic zone with an area of 84,000 square nautical miles. There is a continental shelf out to 350 nautical miles.

Similarly, this water is contained in the Gulf of Guinea, [which] stretches from the boundary line between Nigeria and Benin up to Angola and encompasses eight states that constitute the Gulf of Guinea Commission.

These states have overlapping exclusive economic zones and consist of Angola, Cameroon, Republic of Congo, the Democratic Republic of Congo, Equatorial Guinea, São Tomé and Príncipe, Gabon, and Nigeria. The Gulf of Guinea is endowed with abundant mineral and natural sources, particularly oil and gas, which contributes significantly to the global prosperity. It is also a veritable medium of commerce and communications.

Strategic Credentials of Gulf of Guinea

- Nigeria has about 187 trillion standard cubic feet of gas reserves
- Major source of energy for developed countries
- Veritable medium for global commerce and communication
- Excellent medium for recreation, scientific/oceanographic research
- High economic value to both littoral and landlocked states
- Renewed interest of BRIC [Brazil, Russia, India, China] nations on account of new deep offshore discoveries.



[These attributes have] led to significant increase of activities by multinationals, thereby attracting increased crime. The emerging maritime security challenges in Africa include political instability, inefficient resources management, and poor Maritime Domain Awareness. Others include limited or absence of capacity for maritime law enforcement, poor environmental management capability, terrorism, pollution, environmental degradation, as well as difficulties enforcing sea control in the vast maritime domain.

As a result of this inadequacy, threats of militancy, sea robbery, and piracy, as well as poaching and smuggling, are prevalent. Furthermore, there are threats of proliferation of small arms and light weapons, disruption of shipping activities, and crude oil theft.

In the face of these threats, the capacity of most African navies, particularly [in] the Gulf of Guinea, has been grossly limited due to lack of human resources, inadequate platforms, and [lack of] logistics to sustain naval operations at sea. Also, most of these threats are transnational in nature, requiring collective, regional efforts to contain them. The maritime environments in Africa are therefore prone to serious risk on account of these detected threats. These threat situations deny the African citizens' ability to fully recognize the economic benefit derivable from their maritime environment, which creates a serious threat to their national security. The security of the African continent maritime domain is therefore pivotal and crucial to the attainment of the national interest and aspiration of the member states.

The strategic credentials of this maritime environment and the attending threats require the need for it to be adequately protected to promote economic growth and national development. The Nigerian Navy's concept of operations is

anchored on the three processes of surveillance, response initiative, and enforcement. In order to ensure and enhance Maritime Domain Awareness in Nigeria, the current democratic government has in place the following capabilities:

- Acquisition of maritime patrol aircraft, acquisition of helicopters;
- Acquisition of surface platforms for internal waterway patrol and coastal patrol vessels as well as ongoing effort to improve the capabilities and features of platforms already established; and
- Acquisition of coastal defense radar network, acquisition of unmanned aerial vehicles, and satellite imagery techniques.

To further enhance surveillance abilities, efforts are ongoing to establish an integrated command and control center for the collection, analysis, and destination of information that is needed to generate a response for this type of reporting. Global maritime security is concerned with an ever-increasing sophistication in criminal activities; there has been a change that has [re]defined the concept of maritime security from conventional to asymmetric challenges.

The African Union recognizes the need to develop a regional platform for cooperation in order to address common maritime security threats. Consequently, in 2004, the chiefs of the naval staff of Nigeria, South Africa, Kenya, and Ghana conceptualized the idea of Sea Power for Africa Symposium with the following objectives:

Three sessions of this symposium have been held: twice in South Africa [2005 and 2009] and one in Nigeria [2006]. Arising from these symposia, some African navies have embarked on exchange programs through the provision of training

opportunities in the various training colleges and the development of concepts to enhance the collective security of the maritime domain. The fourth symposium is proposed to be held in Ghana, [in] 2010.

In order to further leverage on a cooperative effort to enhance maritime security within Africa, the Nigerian Navy, in September 2009, organized the Chief of the Naval Staff Annual Conference. I invited representatives of South Africa, Kenya, and Ghana. Areas to further strengthen our cooperation were discussed including the suggestion for a 100-ship naval force to be set up for policing of the Gulf of Guinea in line with the 1,000-ship navy concept. Presently, discussions are ongoing for the bilateral and multilateral cooperative effort between African navies of the Gulf of Guinea Committee for enhanced maritime security of the area.

A four-nation arrangement for the patrol of the northern Gulf of Guinea has been in place by arrangement between Nigeria, Cameroon, São Tomé and Príncipe, and Equatorial Guinea.

The Nigerian Navy also collaborated and cooperates with navies of other countries, particularly the United States Navy, the Royal Navy, and French Navy, to mention just a few. This has provided several opportunities for enhanced Maritime Domain Awareness and similar capacity development for the Nigerian Navy. This effort has also provided many opportunities for Nigerian forces, both afloat and ashore. Some of the programs in the Nigerian collaborative effort with other navies include EXERCISE ENDEAVOR conducted in July 2008. Similarly, with provision of the Africa Partnership Station, Nigerian naval personnel have participated and gained experiences in some of the important sea exercises with the United States

Navy. In response to asymmetric warfare and search and rescue, other collaborative efforts include U.S.-sponsored Maritime [Domain] Awareness initiatives in some African countries, such as the establishment of Regional Maritime Awareness Capability Centers in Nigeria and São Tomé. Also, the establishment of a special boat section training center with the assistance of the Royal Navy.

It is instructive to observe that Maritime Domain Awareness provides only surveillance capability. Therefore, for common maritime safety decisions, response initiative, and enforcement ability must be contingent with Maritime Domain Awareness. It is within this context that I acknowledge the ongoing collaborative effort for enhanced maritime awareness between the Nigerian Navy and the United States Navy. While mindful of this, it is necessary to state that the next issue and focus of the collaborative effort must be the development of response initiative and enforcement capability of less empowered navies in Africa to effectively address global maritime security.

Therefore, in order to enhance regional and subregional maritime cooperation, it is a necessity to develop the capacity and also show the capability of navies of African states to be up to the maritime challenge. For the Nigerian Navy, the current government has demonstrated a critical need and commitment to resuscitating the fleet through the acquisition of new assets to meet the projected maritime security challenges in Nigeria. Furthermore, the government has made and encourages initiatives to address the security threats in the Niger Delta through the amnesty program, which is yielding positive and encouraging results.

Therefore, the way forward would encompass

- Networking of intelligence gathering and sharing of information.
- Effective management of command and control functions through proper interfaces based upon capability for enhanced Maritime Domain Awareness by African states under the auspices of the AU and other regional bodies (e.g., the Economic Community of West Africa, South[ern] Africa Development [Community], and Gulf of Guinea Commission, just to mention a few of these).
- Response initiative and enforcement capabilities.
- Combined training exercises among African states, where articulated and clearly defined and combined training and exercise will form the security among African states.

Once again, I thank you most sincerely for this singular opportunity to address this body. The motto of the Nigerian Navy is "Onward Together," to make the sea a better place for tomorrow's prosperity. Thank you very much.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

I believe it's time now to play cricket with Vice Admiral Samarasinghe, so please, Admiral Samarasinghe.

Vice Admiral Thisara Samarasinghe, Sri Lanka:

I bring greetings from His Excellency Mahinda Rajapaksa, the President of Sri Lanka, and my own navy, to all of you here—to the Chief of Naval Operations for the U.S. Navy, although he is not here, and the other senior figure, the President of the Naval War College, and my dear colleagues who are present here today. With

respect to soccer, soccer is played for one and a half hours. I come from a country where cricket, the foremost game, is played for five days. So I don't know this red card, yellow card. I don't believe in that, so I will bat around until the five days is completed or darkness comes since I don't understand the red card.

Let me, on a small personal note, say that there was a midshipman who sat next to me in 1976 in Britannia Royal Naval College, International Class 3 Alpha. Today, I come here after thirty-three long years to sit next to the same man that I sat next to thirty-three years ago—that is, Admiral Ibrahim, my good friend from Nigeria. And I also have the privilege of interacting with Admiral Molestina from Ecuador who sat with me in this same auditorium in the Naval Staff College nineteen years ago in Class 38 of Naval Staff College. And I also have none other than the dancing Swede, Anders Grenstad, who sat with me in San Remo in Italy about eight years ago. With that, ladies and gentlemen, let me get to my final task.

A set of fishermen-turned-smugglers operating across the Palk Strait in 10-foot dinghies with OBMs [outboard motors] in the late '70s, progressed over a period of time to transform to a formidable and ruthless terrorist outfit by the late '90s. This terrorist organization was eventually capable of operating and launching attacks from jungles, towns, beaches, coastal waters, underwater, on the high seas, and even from the air.

How did they achieve this? They developed support, international financial potential, [a] transnational logistic network, global transportation, and trained paramilitary [forces], mainly through direct and indirect support of some foreign countries, agencies, and interested individuals.

None of the military equipment and other commercially off-the-shelf items used by these terrorists were made or manufactured in Sri Lanka. How did these items reach an island nation? Your guess is as good as mine. Such terrorist action, with international support, very nearly destroyed the serenity and the territorial integrity of Sri Lanka, an independent, sovereign state. Yet the international community did not extend effective support or collective counteraction, perhaps not realizing the gravity. However, a committed, a democratically elected fearless Sri Lankan leadership with the right attitude, and equally committed brave, provisional, disciplined, and well-trained armed forces, supported by the general public, defeated a terrorist group, at one time the most feared and ruthless in the world. Sri Lanka was compelled to respond to these terrorists aggressively on all fronts for the survival of the nation and its peace-loving citizens, irrespective of community. This time was an unprecedented achievement at a very heavy cost in terms of human life and resources and at the expense of peace, economic progress, and national growth of my country. Had this victory not taken place, I would not be standing before this distinguished audience to share almost thirty-five years of experience in conquering terrorism at sea and on land. Ladies and gentlemen, with this preamble, let me narrow the course to the classic naval role and the lessons learned from this particular conflict and focus on the aspect leveraging cooperative effort has to enhance maritime security operations.

Navies today see a newly emerging threat, forcing them to concentrate on littorals. This has brought about a transformation in contemporary naval forces to constitute a new form of naval warfare—that is [an] asymmetrical, or, as I prefer to call it, an irregular kind of warfare.

The Sri Lanka Navy is a small force, but is an experienced, battle-hardened, robust [force], and one that has met this challenge with discipline and defeated a terrorist group that was at the cutting edge of maritime terror, a group that used suicide as its main weapon and became a model for other terrorist groups around the world, a group well-funded, running an international logistics network and its own shipping organization.

Ladies and gentlemen, the Sri Lanka Navy used limited resources to go after the terrorist gun-running shipping network, who took advantage of the freedom of the seas, using the global commons for its criminal purpose. Results were achieved after many long, painstaking searches, good intelligence, and mutual cooperation with friendly states. These enemy floating warehouses that were systematically interdicted and destroyed carried a cache of weaponry, explosives, and underwater weapons.

An arsenal capable of sustaining full-scale combat operation for years in Sri Lanka had been buried.

On the other hand, the question still remains as to whether the complete consignment of all that materiél carried on board was to create terror in Sri Lanka alone or [whether] the surplus [was] destined to further terrorist activity elsewhere. Some of the ships that spearheaded this task group were gifts received from friendly nations, without which this task would have been impossible. What better example can I offer for leveraging cooperative efforts to enhance maritime security operations? The Sri Lanka Navy is possibly the only navy today that has experienced a maritime terrorist threat from every dimension, in every form, and learned

its lessons the hard way, at the expense of good men who paid with the ultimate sacrifice that others may one day live in peace.

I can proudly declare that my navy has experienced what it takes to fight this irregular threat, be it swarm attacks; semisubmersible vessels; or low-profile, high-speed explosive-laden craft, including Jet Skis. We have also experienced the deceptive, suicide fishing craft, and the suicide underwater saboteur.

The Sri Lanka Navy also formulated the concept of OBST, On Board Security Teams, which were deployed on board merchant ships for security while transiting through dangerous waters. These well-trained teams were successful in being an effective deterrent against terrorist attack. This is the answer to today's problem piracy that we are experiencing. A properly trained OBST team could mitigate this issue in a short period if deployed now. The word is for navies worldwide to focus their resources in enhancing maritime security operations and adopt cooperative efforts to deny unlawful elements and nonstate actors from exploiting the freedom of the sea. To achieve this, we need to share intelligence, resources, and, above all, have the right attitude and commitment to get the job done.

Our adversary who loiters in open seas is a master of deception and will make use of loopholes in international maritime law to appear legitimate. How prepared and, more importantly, how committed are we in dealing with this developing threat? I believe this is the real challenge. Are we strong enough to provide our commanding officers with realistic ROE [rules of engagement] required to meet this irregular threat or otherwise?

The strategy Sri Lanka adopted to meet and counter this threat was to hit the core of the terrorists, which was their well-established logistics chain. To achieve this, the Sri Lanka Navy followed a seven-step strategy, the first being to deter the desire and potential. The desire for undemocratic action comes from the creation of an opportunity structure that emanates from the standing economic, social, and political conditions of a state. This desire has to be countered by deep understanding of the problem, where the root causes of the problem had to be positively addressed by targeting the grievances of the affected group. This aspect received the highest priority of my government's agenda. Another area where the political potential could be addressed is to break the desire for a political objective—in this case, a separate state. To achieve this, insurgency and terrorism must be fought on two fronts, both physical and psychological.

The second step is to deter the organization and the network. A terrorist organization with maritime capability needs to operate from foreign soil or a safe base. The prevention of the use of foreign soil for all illegal activity, particularly on the remote islands and isolated coastal stretches, needs to be addressed. Secondly, propaganda and fund-raising for the group should be effectively curbed. This includes proscribing the organization, arresting the leaders, probing large bank transactions, neutralizing active cells, disturbing cover-up organizations, and preventing the use of state and private mechanisms for terrorist propaganda. Making use of liberal opportunities for such activities must be stopped if detrimental to another country's national security. The atrocities committed by these terrorists and their supporters, both local and abroad, are now coming to light through surrendered

and captured terrorist leaders and it's unfortunate that some countries had harbored well-known Sri Lankan Tamil terrorists, including leaders, and permitted them to function within their borders, promoting the escalation of violence and the terror in Sri Lanka and other countries.

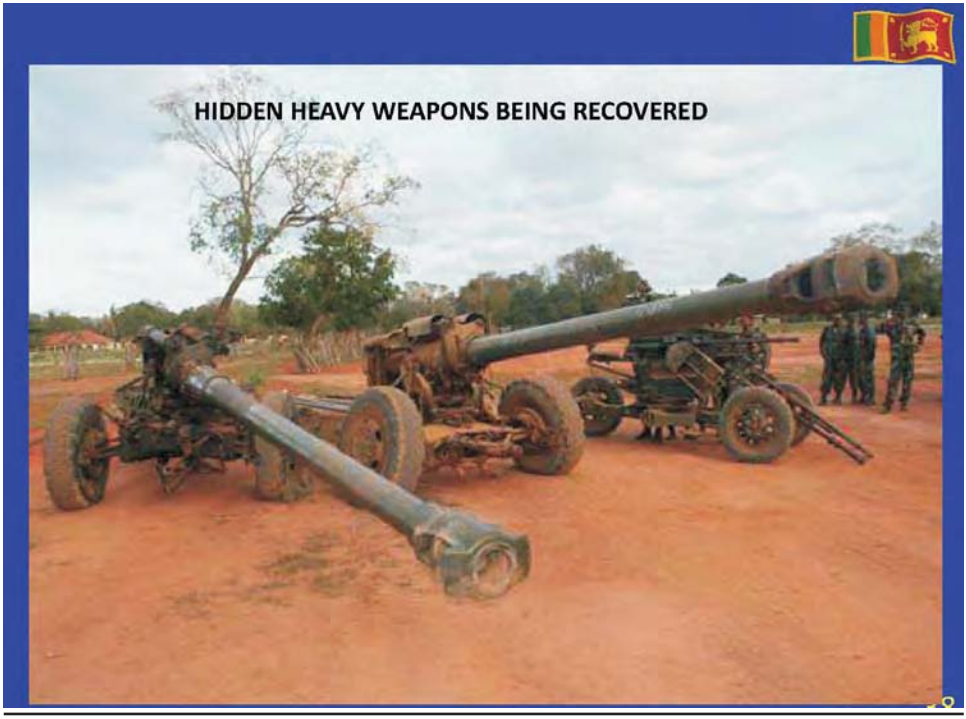
The third step is to deny terrorists' acquisition of a point of origin. Any terrorist group will require connections to purchase military hardware and denying such acquisition is a key factor. This is a difficult task, but the best way to achieve it is by close regional and international intelligence collaboration.

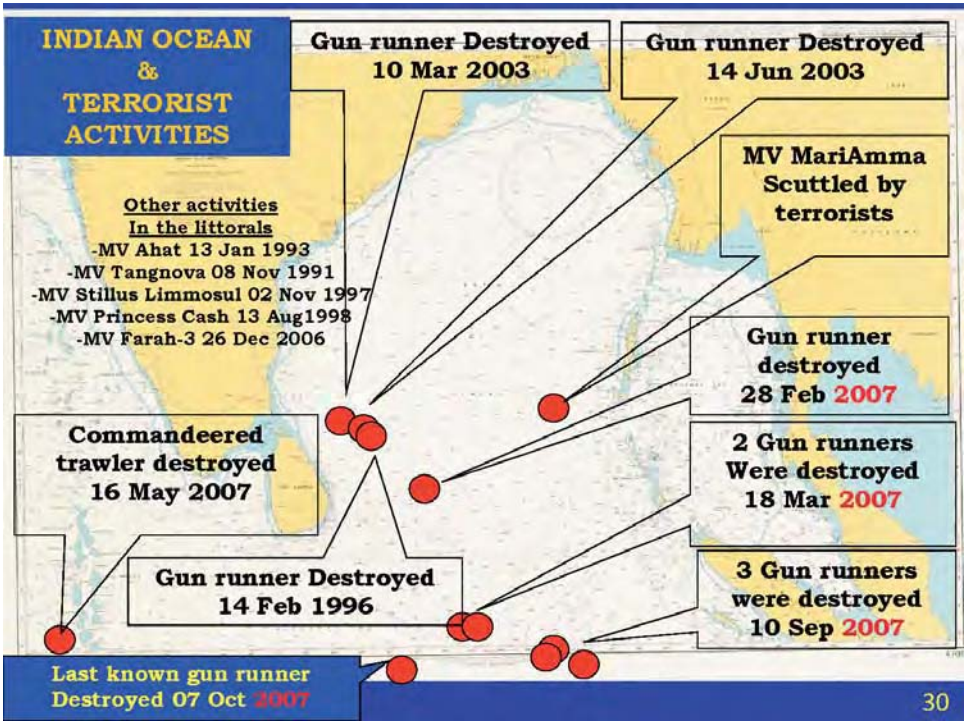
Achieving the third point involves denying the enemy his point of origin. It is a well-known fact that the Asian region, especially that of Southeast Asia, has become a safe haven for illegal arms shipment and smuggling. Therefore, thwarting [use of] such foreign ports and the coastline for such activities at the point of origin is paramount.

The fourth step involves enhanced surveillance and intelligence monitoring. Superior Maritime Domain Awareness in monitoring activities at sea and integrated information-sharing mechanisms are viable options in deterring this phase. This is one point where regional or, for that matter, international collaboration is found lacking.

The fifth step, the detection [through] effective local surveillances is a must for formal defense. It is at this stage that an effective navy using surveillance with maritime air surveillance could play the decisive role.

The sixth step is the arrest and prosecution. This vessel had 152-millimeter mortars on board. When detected and confirmed as a rogue ship, the ROE must be


HIDDEN HEAVY WEAPONS BEING RECOVERED


INDIAN OCEAN
&
TERRORIST
ACTIVITIES
Other activities
In the littorals
-MV Ahat 13 Jan 1993
-MV Tangnova 08 Nov 1991
-MV Stillus Limmosul 02 Nov 1997
-MV Princess Cash 13 Aug1998
-MV Farah-3 26 Dec 2006
Gun runner Destroyed
10 Mar 2003
Gun runner Destroyed
14 Jun 2003
MV MariAmma
Scuttled by
terrorists
Gun runner
destroyed
28 Feb 2007
2 Gun runners
Were destroyed
18 Mar 2007
3 Gun runners
were destroyed
10 Sep 2007
Commandeered
trawler destroyed
16 May 2007
Gun runner Destroyed
14 Feb 1996
Last known gun runner
Destroyed 07 Oct 2007
30

robust enough to give commanding officers the leeway to act [accordingly]. It needs clear political will and military resolve to neutralize the potential threat.

The seventh and last step would be securing the landing point. [At] the landing point, enemy logistics must be denied by the effective coastal land/ground dominating operations. The threat posed to maritime security through the transportation of large consignment of sophisticated equipment and lethal cargo to provide logistical support to terrorist groups requires urgent attention.

In the recent years, Sri Lanka's Navy has experienced and exposed to the world the most unprecedented and dangerous form of maritime terrorism. This trend calls for revision in the existing laws on the search of vessels on the high seas. We need to revise the legal framework in addressing all aspects of safety and security of maritime navigation, paying particular attention to ships flying flags of convenience, registration of rogue ships, and rights of rogue ships. This would make a distinct contribution to securing global peace and security.

The United Nations organization has an immediate role to play in this regard. IMO needs to break the shackles and act now. The survival of the global population is dependent on maritime trade. The sea lanes being traveled today are highly vulnerable to terrorist and pirate attacks, which threaten this critical lifeline of ours. Transportation of weapons of mass destruction and container terrorism are also possibilities that further complicate the issue.

Preparation to counter maritime terrorism cannot be undertaken alone and it needs transnational support. And, like combating terrorist activity on land, use of one's land, infrastructure, and institutions to perpetrate and propagate terrorism in another state must never be condoned.

The origins of terrorists, the financial and logistic support, are the center of gravity of maritime terrorism and this must be countered by disruption in keeping with the obligation of a recognized and a responsible sovereign state. This action should transcend boundaries [and] override the common human tendency to react only when one's own interest are at stake. We all need to go that extra mile. This is the only way to isolate terrorists and criminal groups at sea, halting them from shifting their support block from one place to another.

In achieving counteraction, competent naval forces in numbers and capability for superior surveillance and offensive action are mandated. Effective protection of choke points and harbors from suspect, high-risk vessels needs special attention. Managing a database of regional merchant traffic by a multilateral regional sector authority is what is needed today. The importance of dominating and controlling one's coastline needs to be emphasized particularly in the case of an island nation.

Last, but not least, the human-related aspect of men behind the valuable maritime assets, deployed for counteraction, matters more, and [they] must be highly motivated, adequately equipped, professionally trained, and provided with clear ROE and unwavering leadership.

Maritime terrorism is global and asymmetric. Our response must be global, appropriate, and preemptive. We can deter and defeat terrorism at sea if the right steps are taken at the right time in a cooperative effort. Hence, a global regional agreement on cooperative maritime security supported by stringent laws and aggressive diplomacy must be immediately pursued.

The need of the hour is to formulate required action and implement the same without delay, led by regional maritime powers and the collective support of

regional navies and relevant nonmilitary agencies. I take the liberty to propose that such a regional forum must meet within three months from today to formulate action plans and the way ahead. To begin with, heads of operations meeting—focusing on newly evolving threats, efficiency of ongoing naval operations, improvement to collaborative effort, unmanned port protection measures, and interoperative ability and intelligence sharing—will set the course and speed. Sri Lanka is willing to host this first meeting and coordinate operations-level aspects, which would be just available in Sri Lanka in the Indian Ocean, for you to enjoy.

The delegates, heads of navies, senior military officers, the President of the War College, chiefs of the navies, you and I, being the closest to the political leadership of our respective countries, could and should make such convincing authoritative and professional recommendations to executive political leaderships so that their focus would be to defeat terrorism. This is the legacy I propose to you for using your authority and power of influence, either through maritime assets and mechanisms at sea or to convince political circles of the importance of dealing with an evolving threat now. The proposed regional cooperation can be achieved only by changing the attitude of the decision makers that matter most and [with] unconditional support by all members of the United Nations towards all those whose sovereign states are being challenged and attacked by terrorists through this global terror network.

Rationalizing terrorism, double standards, inaction, discrimination, or indifference against those fighting terrorism in any form is wrong and needs to be reconsidered for betterment of the future generation. Such action invariably conveys the wrong message and encourages terrorists and their supporters that they have sympathy and support, no matter what violence they perpetrate.

Let me take the liberty to quote from the *U.S. National Strategy for Combating Terrorism*:

> For the enemy [the terrorist] there is no peaceful coexistence with those who do not subscribe to their distorted and violent view of the world. They accept no dissent and tolerate no alternative points of view. Ultimately, the terrorist enemy we face threatens global peace, international security and prosperity, the rising tide of democracy, and the right of all people to live without fear of indiscriminate violence.

I believe, and I am satisfied, that Sri Lanka and the Sri Lankan Navy have constructively contributed to the war on terror and will continue to fight all elements that advocate violence as a means to an end. Let me also quote former President [George W.] Bush,

> We will not rest until terrorist groups of global reach have been found, have been stopped, and have been defeated. We must take the battle to the enemy, disrupt his plans and confront the worst threats before they emerge. In the world we have entered, the only path to safety is the path of action, and this nation will act.

It will be noted that the former Prime Minister of the United Kingdom, Tony Blair, was also on board and voiced the same view of combating of all forms of

terror. "Together," "trust," "collaborative action," "dialogue," "talk," "care," "co-ordination," "breaking barriers," "common understanding," "common effort" are words that have reverberated within this auditorium over the last three days and the Secretary of the Navy used the word "together" many times in his opening address. So, my dear friends, our collective obligation is crystal clear. We need to put these words into practice. We in Sri Lanka have done exactly that and given the strong message to insurgents and terrorists worldwide that they can be decisively defeated. The Sri Lanka Navy, in this regard, has done [its] duty in eradicating a maritime terrorist group supporting terrorists on land. Now the ball is in our court, in supporting Sri Lanka and other countries, in denying the terrorists from raising their ugly heads again.

In conclusion, let me wind up leaving you with this message which I formulated in 1998:

> Nothing weakens the enemy's strength more than detaching, or exploiting the detachment of the enemy's allies, communication and support network.
>
> Then he sees that power and ability now arrayed against him and his morale is endangered by the obvious thought that the support bloc is falling apart and he is isolated and that defeat is probable or inevitable.

In closing, let me take this opportunity to express my sincere gratitude and thanks to all those who contributed in helping Sri Lanka defeat terrorism and we Sri Lankans will never forget the part some of you played in supporting us in achieving peace in our Motherland. We could not have done it without leverage, the theme of this historical nineteenth Seapower Symposium.

I thank the government of the United States, the Chief of Naval Operations of the United States, President of the Naval War College, for inviting me, my wife, and my delegation for this glorious three days and these very informative sessions. Thank you very much.

DISCUSSION

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

We have passed the time by six minutes; so please, if you allow, I'm asking for just five minutes so that we can have two or three questions from the audience. Any questions, please?

Vice Admiral Homero Luis Lajara Solá, Dominican Republic:

[Translation from Spanish follows] I am going to talk about something that is happening right now in the Caribbean, especially the Dominican Republic.

Last night, after this fantastic reception that we all attended, after I got to the hotel, I received a call regarding an altercation that was taking place at that time in the southeast area of the Dominican Republic that was a sort of a bombardment of drugs. They used go-fast [boats] over 50 nautical miles out and our navy cannot come out over 25 nm; and, therefore, we were not able to intercept these go-fasts.

I was thinking last night about our limitations because we need to have ships and boats which would counteract this kind of task. When Admiral Barrera was talking, I also received another call that was this time regarding an intercept of a boat with fifteen illegal Cuban citizens that were going to Mona Island because there is an agreement between Cuba and the U.S. that when a Cuban arrives at Mona Island, political asylum is immediately granted. And this has really put in danger the safety of our area because, as you will agree, there are a lot of Cubans that leave Cuba, go through Haiti, then go to the Dominican Republic, and then try to reach Mona Island. Fortunately, with the conditions existing, the navy is trying to avoid this type of incident.

I mention this because Admiral Barrera along with the Colombian Navy are our allies with a bilateral agreement. We have already trained together, and right now we are evaluating other courses that might take place. Now this equation in the Caribbean is rather dangerous, I should say, because [the experience of] these operations with the Colombian Navy [show that] the drug trafficking is system-wide and they are going more toward Hispaniola, Cuba, Haiti, and the Dominican Republic.

Now this isn't a question, but this meeting we are attending right now would be a very good way of making amends and it is fundamental that we have to work together, we have to collaborate. And the experiences, like those with Colombia, I know it can be difficult [but it can be] a little bit better. Those countries that have [inaudible] and [Inaudible] could be able to help out our countries [inaudible] and technological assistance because when I go to technological centers like the one that is being set up in Colombia, and we are going to deal with these issues in Santiago next year. [Inaudible] and other Spanish-speaking countries will be invited. We will invite France and Holland because they do have interests in the Caribbean region and it is very important for us to work together. And I think it is very important for African countries, Asian countries, and European countries to have some sort of relationship with Colombia and the Dominican Republic, because we have to work together.

And those are the details [inaudible], for example, that has [inaudible] for the Dominican Republic will have to be able to increase that from drug trafficking. We were able to seize over 800 tons of cocaine in six months.

Thank you very much for your assistance.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

We have time for two questions, please.

Major General Ahmad Y. Al-Mulla, Kuwait:

My question is to Vice Admiral Ibrahim and maybe Mr. Kamé-Domguia, as well. Admiral Barrera [of Colombia] gave a very good example of cooperation and coordination between states to counter [terrorism] and to enhance maritime security. How can West Africa come up with a model to counter and enhance maritime security with Nigeria playing the lead nation in that? Thank you very much.

Vice Admiral Ishaya Ibrahim, Nigeria:

Thank you very much for that contribution and question. We are presently here to learn from each other and I believe the good contribution from various groups has

enhanced and given us several approaches to this sensitive issue. But some pertinent things I would like us to observe:

1. Security is a collective endeavor for all of us. Like it or not, the maritime environment contributes over 90 percent of mankind's survival. Within the African regions, we know that their capacity to have activities like this is very low.
2. The political will is not there.
3. Many factors that bind us together are weakened by other factors that divide us.

What we're asking is that this sensitive problem, which is global in nature, should not be overlooked and be given just to the Africans to face it. It should be given the collective responsibility of all. Those who have [resources] should contribute to the Africans to face these problems. We're here in your midst as brothers. The problem does not affect only us, it affects you, too, because the fact of it is poverty and it is difficult to tie an individual solution to it.

So, what am I saying? Create the environment to enable the citizens of Africa seeking to be gainfully employed, educated, and, not only that, to be part of this global effort. There cannot be that without this; it is not possible.

I think I would suggest that this forum should look into those parameters that would make us thus. We are willing. It is not in our characters to be like this. But there is a presence from outside us that has pushed the young ones to this extent. We believe it could go beyond this. Thank you.

Rear Admiral Ahmed al-Tenaiji, United Arab Emirates:

Thank you, Admiral; by this question I would like to close this panel, please.

Unfortunately, our time is up, and I hope to summarize what all the panelists mentioned, described or commented on. Most of the maritime security challenges that we addressed today are similar to those that we are actually facing on the ground, regardless of the different methods of addressing them, or the place where they occur. This is a good reason for sharing knowledge and information and for talking with one another. This is very important. Likewise, trans-regional efforts will help [us] find effective and appropriate solutions to build or strengthen partnerships. With regard to maritime security, panelists have been chosen to represent the entire global maritime sector, as well as international institutions associated with maritime security. This is for the benefit of all states, because the threats of piracy, drug smuggling, etc., are shared ones, regardless of nationality and faith.

Like other threats, the threat that we face in the Gulf region and that we are striving to combat requires the comprehensive maritime cooperation of all countries.

The partnership of all states that have maritime interests is necessary for maritime security. Accordingly, I wish to shed light on my earlier remarks regarding expanding international partnership in the Arabian Gulf. With the assistance of our neighboring littoral states, particularly Iran, a wider partnership will help ward off [possible] threats, and combating these threats will help us resolve many problems.

I wish to thank all the members of this panel whose presentations were fitting for the goal. I thank them for the ideas, techniques, and measures they proposed for regional and nonregional cooperation efforts to enhance maritime security. I also wish to thank the listeners who provided us with useful comments or asked questions about the topic.

Rear Admiral James P. Wisecup, United States:

Admiral Tenaiji, thank you very much for moderating on this panel. This has been a very interesting discussion.

Now, you will recall that in my opening remarks, I took a time-out. Well, we actually have more time if you'd like to continue the discussion, but I just wanted to see if there was a desire to continue the discussion. We could have a few more questions if you'd like and, if not, we can break for lunch. Are there questions or more desire for comment? Okay, we can go to 11:10 or I can wrap up at eleven o'clock. We'll see what the questions bring. Thank you.

Lieutenant General Rob Zuiderwijk, The Netherlands:

I have a question to direct to the representatives from the African continent. Admiral Wang suggested that helping the African continent should be done or could be done through the United Nations. Now, we see the Africa Partnership Station and other activities to help the African continent. Do you see the possibility to do this through [the] UN or would you rather see bilateral or multilateral connections to help Africa?

Vice Admiral Ishaya Ibrahim, Nigeria:

Thank you very much. I believe it is a significant question, whether [it should be] a forum like this college's or the UN. What is sensitive to me and to you carries more weight in comparison to the UN. So what am I saying? How many ships are at sea now hunting for one thing, keeping the seas safe? It is not the civilians in the street that undertake this, because we do. What is wrong to formulate a suggestion of a warning to the United Nations Security Council? [That] would be a good decision. The process which you suggest certainly is just one of them, but I believe a security forum like this carries more weight. Let it be started from here, [with those] who will appreciate it. Africa wants development and progress. Africa [wants] capability, Africa wants industrialization, wants education and employment, a job for every African. [Africans want] progress in making the sea to safe for all of us. We are two people who are here, all the way from Nigeria to here; I did not come here for [pleasure]. I believe it is serious business and that business is security. Thank you.

Admiral Guillermo Barrera, Colombia:

General, I think the question is quite important because with different people's navies we show our people that is one of the objectives. What we have seen in the Americas and the Southern Conference on Terrorism has made us seek bilateral agreements—sometimes at the level of presidents, sometimes minister to minister, sometimes defense ministers, sometimes interior ministers, and, therefore we could carry out operations at sea.

Somebody said the first day that even though the responsibility of defending our own nations is the responsibility of the armed forces, once they go into international waters the responsibility of protecting those international waters goes to everybody. For example, one example of this is Chile. Chile has a very forward-looking policy, feels very responsible for the sea, well beyond the 600 nm limit of her EEZ. When we, the chiefs of staff of the navies, sit down to talk about common interests, we find common solutions that will allow us to grow, and will allow us to

protect our people, and we will give more opportunities to our people. If we think along those lines, maybe this forum is perfect so that we can find solutions to common problems.

That, obviously, will allow us to obtain better results in the future and I think about when Admiral Arleigh Burke created the Naval Command course here in Newport and this is the reason for this symposium to be held every two years.

I would like to say to all my brothers in Africa, why don't you come to the course on maritime interdiction to be held in Colombia that was created using all our experiences that come from our navy and our coast guard? It is the result of hard work. We brought a lot of people down, we had a lot of people staffing on that topic and, if we can help in any way, I am convinced that all the countries in America will be more than happy to invite you. Looking into their faces, I know that they think like I do, because, if there's anything that we have learned in this, it is that if we work together, we work like brothers and sisters with the plan to go back to that. We have to give to those people that help us. We have to give to others what we have received. We have to keep working and this is a way for us to work together with the countries of the African Union.

Thank you very much.

Vice Admiral J. Mudimu, South Africa:

Thank you, colleagues. I think there must be a misunderstanding on what is it that Africa requires. Africa is on a winning path. Africa understands itself—I think from what Mr. Kamé-Domguia just said—that, at the African Union level, they are busy formulating strategies to deal with this particular question. We are very happy and excited with that initiative, which requires the participation of the African navies to assist him at the African Union level. I think from Admiral Ibrahim's presentation, he also clearly indicated the initiatives that are in place in the continent and the slogan of this conference is "Working together, we can achieve more." Definitely we can do that.

What we are saying is that the participation of any navy of the world in the African continent must be on the African terms. You need to work in conjunction with us because we are the masters of our territory. So, if you do that, we will be able to assist you while you are assisting us. This is a partnership, that's all the language in partnership. It is not for a bigger brother coming forward to assist a smaller brother. I think even yesterday speakers alluded to this question. Countries that are participating [on] the Somali coast, they must provide them with necessary information so that is in a position to assist others.

The African navies are here in Newport. We have studied this partnership [for a] long time, since time immemorial. Many other countries are participating in a variety of training initiatives with [African navies] so their experiences, what we share here, are what from our point of reference can add value to all your own countries while, at the same time, the value that you share with us in this conference assists us in strengthening the initiatives in our own continent.

We spoke about the Africa Sea Power Symposium. That four years—six years—ago the chiefs of the navies of South Africa, Ghana, Kenya, and Nigeria decided that we must have an initiative on the continent. What was the purpose of that initiative? The purpose of that initiative was particularly to address the weaknesses

inherent in the African continent. It was also to fight the issues of what we call sea blindness and Admiral Ibrahim alluded to the fact that we come from a continent whose main focal point is to ensure that hunger is fought, illiteracy is fought, disease is fought, and at the same time, we're fighting the wars that are taking place amongst ourselves in the continent, but nothing takes away the capabilities and the intention of all principals to ensure that the long coast of Africa is protected, but that coast will be protected in terms of Africa, not in terms of anybody whatsoever. It is Africa that will chart its agenda and then through that agenda, through the organization of African Union, the AU now and the United Nations, we will find the partnerships that we require to deal with many myriad problems that affect the continent.

Training takes place now and will continue to do so. We engage with all the countries in the world—in Latin America, we're there; in Europe, we're there; we're in so many countries to position. I said yesterday to you that what is required in Africa is also that the chiefs of the navies of the African continent themselves, when they emerge from a conference like this, must have the ability to report to their principals what we discussed, what is it that we see towards building humanity, building pieces of that ability. If I fail to report back to my country the deliberations of this conference that is the beginning of failure that is the beginning of sea blindness. When there's an African Sea Power Symposium, we need to talk to our principals about those initiatives. The success of the world depends on us being able to communicate with our own principals in our own individual countries for the collective good of all. Thank you.

Admiral Thisara Samarasinghe, Sri Lanka:

May I respond to what he's said? Although we are in a global setup, two things: What my friend said about the message from this forum to the United Nations, I think I strongly endorse. I managed to include a paragraph on changing the Law of the Sea in the address by my honorable prime minister to the United Nations General Assembly last week. I had a paragraph emphasizing this, so it will be good if this forum under the leadership of United States of America could convince the Security Council of the importance of revisiting through the IMO this aspect.

What you just said—deliberations—I have discussed this with the President of the War College, deliberations of this forum. I have another alternative—rather than going bottom-up, I request the top-down approach. The United States has taken the leadership on this issue; they should formulate the deliberations of this forum, this symposium, what the countries are required to follow up on. At least if you get the short guidelines in a one-paper document through the channels of the State Department to the authorities of our countries embassies [it would] come top-down to our ministries rather than us going and trying to convince our decision makers in this process. So, more top-down and bottom-up could mean it will be realistic and when we come next time, we could see what progress we have made. I leave that thought with you, top-down and bottom-up, both. Thank you.

Vice Admiral J. Mudimu, South Africa:

I'd just like to make an amendment, Admiral, on what you have said. I think you have said correctly, but you mustn't say under the auspices of the United States of

America's Navy. What we need to say is that we, the chiefs of the navies of the world, are gathered here on the Nineteenth International Seapower Symposium, and we recommend that the United States take the collective view on this particular issue. The lead must not be the U.S. The lead must be the conference.

Rear Admiral Aland Molestina, Ecuador:

[Translation from Spanish follows] Undoubtedly, on these particular issues, it has been said before that we have to start at the national level, but the national level is falling behind. There must be regional initiatives, like there are in Africa, America, and Asia, because there are specific issues to resolve in each region, and we must start at the regional level and then move on to the global level.

The naval commander of Sri Lanka mentioned that while you have the Law of the Sea—that great effort undertaken by the United Nations—because the sea belongs to everyone, we all realize that if you don't look out for the sea, we can have too many problems arise. The Law of the Sea already reflects a number of actions that we must undertake against drug trafficking and actions to further extend the possibilities that we have in the sea. We still have the Law of the Sea, [and] so forth, and environmental protection and drug trafficking. [But] because some other things are not considered, I insist that we must find a legal form at the global level and I think that is what happened at the United Nations through the Law of the Sea, and I believe we should insist upon this. That doesn't mean we should wait until that happens because this is a place for us to take further steps. Thank you.

Admiral José Luis Cabas, Bolivia:

[Translation from Spanish] Admiral, my country, as is known to many, is in South America, the heart of South America. I couldn't have attended earlier because I had a cold, and thanks to my colleagues from Nicaragua and Paraguay, I feel better now.

Just to reiterate the perspective on Admiral Barrera's presentation about the part against drug trafficking, my country has a border with five other countries: Chile, Peru, Brazil, Paraguay, and Argentina. We can be reached through access to the Amazon Basin—in that sense, drug trafficking is a plague to our country as well. Unfortunately, our territorial expanses devoted to coca production and the quantity of cocaine [are] quite vast.

Bolivia is divided into highlands, valley, and tropical jungles. We are part of the Amazon Basin where drug trafficking is making great headway. So what are we doing? The armed forces, with the limited budget we have at our disposal, are working toward the eradication of coca leaf through manual extraction. Given our geography, we don't have other means to undertake this procedure.

In interdiction, we have river operations and work with our national police on the rivers of the Amazon Basin to eliminate cocaine.

With our work, I'm trying to say, I understand Admiral Barrera perfectly and I believe drug trafficking isn't a problem just for the countries that produce it, but is a shared problem for everyone.

We have heard from Sri Lanka, who indicated that the seas belong to all and I fully agree, just as the land belongs to all. We are asked to contribute in kind to fight against this plague—this scourge of drugs and cocaine, drug addiction—and to think of future generations who consider that the world is one, and not an

immutable resource. It is but one. We must consider that our land is quite tired now and we need to think of it, too. Thank you very much.

Admiral Jorge Omar Godoy, Argentina:

[Translation from Spanish] Just a brief comment. I would like to remember that we are but a [small] number of agencies that deal with the problems we are discussing here today. We are but another tool of our countries' policy arsenal. [In a] plan where so many issues and interests have been discussed, we must hope we can contribute to what is under our responsibility to countries and our governments, so they can, in turn, make the best decisions and so that these issues can be discussed at the relevant level in our countries. That is the comment I would like to make.

Associate Dean Vincent Mocini:

So, thank you, Admiral al-Tenaiji and members of the panel; please, a round of applause for Panel Three. It was a lively discussion and a very useful discussion, I think. But now, I will invite you all to proceed to the lunch. Remember the 1330 photo opportunity in Colbert Plaza, if it's not raining.

Seminar Working Group Reports

Moderated by Dean Robert Rubel

Dean, Center for Naval Warfare Studies, U.S. Naval War College

Dean Robert Rubel:

Good afternoon. It is certainly an honor and privilege for me to be moderating the panel of seminar out briefs. Before we get into the out briefs, I'd like to play War College professor for just a second and say that as far as I can tell, the global effort to secure the seas against terrorists, criminals, polluters, and other threats is the largest military project in the history of the world; and, I think, thereby, it's no accident that this is the largest gathering of naval leadership in the history of the world. So, if you think about it, this is a glorious project, unprecedented in its scope and unlike other military projects in history. It does not require for its success the deaths of hundreds and thousands of young men to complete. When we do achieve it, and I believe we will, it will be a very pure triumph that we can all take quite a bit of pride in.

I'd also like to point out that it's common for large projects like this to have spin-off benefits, much like the space programs of various nations. I don't know what those spin-off benefits are going to be right now, but I'm certain that if the Blue Mafia in this room succeeds in the project, there are going to be substantial technical, economic, and political spin-off benefits for each of our countries. And it's a real honor and privilege to be even a small part of this.

Now to the out briefs; we've got seven groups to brief out and a little over two hours to do so—that means each brief should be no more than 15 minutes long and maybe a bit shorter, if possible, to allow for discussion. I've got my yellow and red flags here, I'll be sitting down front, so kind of keep an eye—if you see a flash of yellow or red, then you know I'm sending you a signal. We should have time for everybody to complete their briefs, but, if for some reason, we do have to stop you in the interest of time, don't worry, because, like [Dean] Vince [Mocini] says, we're going to have the CDs prepared that will have all the slides and information on it. So there will be no information lost. So with that, let me invite the representative from the African seminar group to the stage.

AFRICA

Captain Lahoussaine El Horri, Morocco:

Good afternoon, Admiral Roughead, senior officers, ladies and gentlemen. I am here to report on the break-out discussion of the regional group of Africa. The discussion panel that we held the day before yesterday under the wise moderation of the Naval War College staff has come up with these results. Participating countries

[and organization] were African Union, Algeria, Cameroon, Congo, Equatorial Guinea, Kenya, Morocco, Namibia, Nigeria, Senegal, South Africa, and the United States. After this introduction, let me report.

The questions prepared by the Naval War College were:

1. Based on discussion on collaboration among navies, how well do current [Maritime] Domain Awareness [MDA] engagement and cooperative efforts meet your country's needs? How could they be tailored to your needs and improve regional maritime safety and security?

The discussions were frank and the group came up with many thoughts. Among them:

- MDA engagement has increased since the Africa Partnership Station and continues to grow and there was a consensus on this. And also,
- MDA will continue to improve by tailoring the MSD [Maritime Security Detachment] engagement to an individual country's relevant agencies and priorities: such as ministries of Transportation, Interior, Justice, Finance, Fisheries, et cetera, et cetera.

2. The second question: (a) Has information sharing within your region improved? (b) How well have local cooperative efforts been integrated? (c) If you have seen little or no improvements, what are the reasons?
   - The consensus was yes, information sharing has improved within African regions. Local efforts have been coordinated amongst several Gulf of Guinea countries and also in the Mediterranean region between the Five Plus Five [5+5] communities.
   - However, more interagency sharing within countries is needed and better ability to validate information from external sources is needed.
3. The third issue is regarding presentations on improving information sharing across regions: (a) Would any such approaches work for linking your region to others? (b) What practical obstacles would need to be overcome, if any?
   - Our group was okay to say continued personal interactions to further build trust across regions, like ISS [International Seapower Symposium] and regional symposia and workshops.
   - The practical obstacles include difference of languages, the ability to acquire and collect information, a matter of hardware and software capabilities, and incompatibility of computer and data systems.
4. The fourth issue: Information sharing has been addressed previously, but with respect to the development of a standard of operations, more or better exercises, and the establishment of a constant presence at sea or ashore, (a) have you seen an improvement in these areas? (b) How close are forces to establishing constant security presence in your region?
   - Yes. The consensus was yes, exercises and operations have furthered the development of SOPs [standard operating procedures] for maritime security operations. In Eastern Africa, to counter piracy, operations on the Horn of Africa, and West Africa, African Maritime Law Enforcement Program.
   - However, most countries require additional assets and capabilities to increase and sustain security presence.

5. The fifth issue: (a) Is there a Maritime Operations Center (MOC) in your region? (b) How can various regional security groups—for example, NATO, the European Union, CTF [Combined Task Force] 150/151—combine efforts to achieve a common picture and improved MDA? (c) Are NATO or other regional groups doing enough in your region?
   - The consensus was about Africa regions looking to move from temporary MOCs stood up for specific exercises to permanent MOCs for full-time operations.
   - External security groups (NATO, the European Union, etc.) are engaging in areas such as counterterrorism, pollution response, migrant issues and repatriation, and countersmuggling.
   - The establishment of memoranda of agreements and formal processes for information and intelligence sharing are needed.

In conclusion, local priorities, actionable through regionally generated and shared information, leading to global synergy. Thank you.

Dean Robert Rubel:

What we'll do is hold questions until the end of all the groups to make sure everybody gets to present, and then we can have questions and answers. So, thank you, sir. Asia-Pacific group?

ASIA-PACIFIC

Rear Admiral Manson K. Brown, United States:

Admiral Wisecup, distinguished chiefs of navies and coast guards, fellow delegates and sea service professionals: my name is Rear Admiral Manson [K.] Brown, with the United States Coast Guard, Commander, 14th District, homeported in Honolulu, Hawaii. Good afternoon.

Our seminar group focused on the Asia-Pacific region to discuss current and anticipated practices with Maritime Domain Awareness, or MDA. We had a most engaging discussion, which was facilitated by Naval War College professor Ron Ratcliff. Now, our PowerPoint slides capture some summary thoughts, but do not adequately reflect the richness of our discussions.

But one thing is clear: we are all interested in achieving a more effective understanding of the full range of activities occurring throughout the maritime domain in order to protect our interest with security, safety, economy, and the environment. Collectively, our group endorsed the notion that MDA enables decision superiority, which we heard from our first distinguished panel.

Our assessment of the current state of cooperative and engagement efforts in the Asia-Pacific region is that the trend lines towards enhancement of regional MDA are going in a positive direction, but there are still significant gaps and daunting barriers.

We discussed ways to enhance MDA for our individual nations and on a regional basis. We recognized the challenge of information overload and discussed various ways to distill information and to analyze products that are actionable.

We agreed that we need to connect with others to enhance MDA. We require a collaborative interagency, intergovernmental, international, and industry

approach in order to develop a full understanding of what's occurring in our maritime environment.

We discussed the challenges of attracting everyone to our regional MDA team given different national interests, capabilities, cultural perspectives, and concerns about the sensitivity or proprietary nature of MDA data.

We recognize the need for greater use of technology, but concluded that given the vastness of the Asia-Pacific maritime environment and economic considerations, complete Maritime Domain Awareness is impractical. We discussed risk management strategies necessary to manage this challenge.

We see bilateral relationships as a key building block in integrating regional cooperative efforts to enhance MDA. They can be used to develop a framework for regional MDA cooperation and information sharing. We talked about the types of incentives that may be necessary to achieve cooperation from our international and industry partners. Given our different motivations and interests, one size does not fit all in terms of these incentives.

We agreed that the complexities of the maritime environment counter any argument that we can achieve MDA similar to that of the air traffic control system. We felt that such comparisons were neither appropriate nor helpful. One of the group members said it best: "Aviation has the benefit of gravity."

Now, it's been said before, trust is the most important factor in building regional MDA initiatives. It starts with open communications and mutual understanding. Then, of course, forums like these help to foster that trust.

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Question Set One:
Collaboration Among Navies – MDA in Practice

(b) How could they be tailored to meet your needs and improve regional maritime safety and security?

- *We must do a better job of **identifying the anomalies** and **defining the threat***
- ***Must create incentives** (rewards) for collaboration among the various stakeholders*
  - ***Commercial buy-in**: How do you get it? (Oil/Gas industry, shipping, fishing industries, etc)*
  - ***What do your partners want** in return? (Public recognition may or may not be good, etc)*
- *Use technology to **better focus seaborne and air assets** where needed most*

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Question Set Two:
Regional Information Sharing Networks– MDA in Practice

(a) Has information sharing within your region improved?

- *Info sharing has and **continues to improve***
- *Opening of **Information Fusion Center** in Singapore is the latest example*
- *Several country examples of how information sharing within a country is enabling effective action not only within the country, but also across the region*

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Question Set Two:

Regional Information Sharing Networks– MDA in Practice

(b) How well have local cooperative efforts been integrated?

- *MDA is getting better both within individual countries and between countries*
- ***Bilateral** relationships are often more the norm, however, than multilateral sharing*
- *"You have to **learn how to share credit** so other (agencies/countries) are not threatened"*
  - *Public recognition may not be good*
  - *Ask your partners how you can reward them for good actions*
  - *Good rewards will encourage improved behavior*

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Question Set Two:

Regional Information Sharing Networks– MDA in Practice

(c) If you have seen little or no improvements, what are the reasons?

- ***MDA is extremely difficult**!*
  - *Technology to build and maintain accurate and actionable MDA is not yet available*
  - *Sharing regimes/SOPs often different*
- ***Comparison to aviation** regimes <u>not appropriate</u> or <u>helpful</u>*
  - *Environments are significantly different*
  - *Traffic patterns and vessel behavior not governed by fuel/time constraints*
  - *Activity and purpose are often not apparent*

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Question Set Three:
Bridging Regional MDA Initiatives – MDA in Practice

(a) Would any such approaches work for linking your region to others?

- ***Trust*** *is a critical component*
  - *Bilateral relationships build on that trust (key initial step)*
  - *Multi-lateral relationships can then be built through time (follow-on, when able)*

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Question Set Three:
Bridging Regional MDA Initiatives – MDA in Practice

(b) What practical obstacles would need to be overcome, if any?

- ***Trust*** *is a critical component*
- ***Legal regimes*** *are required for effective action*
  - *Partnering with law enforcement for a navy*
- *Having an* ***asset on station*** *when needed*
  - *Ship-rider programs can put the person where needed when needed*
  - *Loaning an asset" enables the platform and the person to be co-located*
- ***Intelligence*** *must be actionable*
  - *Cannot drown in data; must have good information*
  - *HUMINT is a critical component; linking land events with a maritime nexus*

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Question Set Four:
Maritime Security Operations – MDA in Practice

(a) Have you seen an improvement in development of Standard Operating Procedures (SOPs) and more and better exercises?

- ***Yes.*** *Since 9/11 we have seen better cooperation and actionable sharing between countries*
- *Information Fusion Center in Singapore is being effective*
  - *Several countries indicated that they are sending liaison officers (navy, coast guard, other agencies)*
  - *ASEAN is helping make this possible*
- *We have started small exercises where countries are sharing information*
  - *Learning how to discriminate a key piece of information from a variety of agency sources*

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Question Set Four:
Maritime Security Operations – MDA in Practice

(b) How close are forces to establishing constant security presence in your region?

- *'Persistent presence' is required for maritime environment (not cost effective with current technology)*
  - *Satellite resources are focused by priority on land*
  - *Cannot get enough ships and aircraft (UAVs help; are not enough)*
- *"1.5 million square miles of exclusive EEZ"*
- *"32 thousand kilometers of coastline"*
- *"One of the largest archipelagic nations with one of the smallest maritime forces"*
- *"**We are great at autopsy , but lousy at prediction**"*

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Question Set Five:

Maritime Operations Centers – MDA in Practice

(a) Is there a Maritime Operations Center (MOC) in your region?

- *Information Fusion Center, Singapore;*
- *Various national centers (Australian, New Zealand, US Coast Guard-Hawaii to name a few)*
- *U.S. Pacific Fleet, U.S. Seventh Fleet*

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Question Set Five:

Maritime Operations Centers – MDA in Practice

(b) How can various regional security groups combine efforts to achieve a common picture and improved MDA?

- ***Start Local, become Regional**, and work toward Global Domain Awareness*

(c) Are NATO or other regional groups doing enough in your region?

- *All successful examples of regional MDA (Caribbean, Horn of Africa, Strait of Malacca, etc) began as event-driven responses to problems.*
- *Over years to decades, these multi-national/agency organizations learned how to share information & credit, operate together, and become effective.*
- ***Any effort is going to take time to become effective***

Asia Pacific

In discussing the goal of establishing constant security presence in the Asia-Pacific region, we generally agreed that the notion of persistent presence is more of an ideal than a practical goal. We are all constrained by the amount of surveillance and enforcement resources needed to provide complete, persistent presence, especially given the expansive nature of the Pacific Ocean. Technology will help, but this challenge compels us to work together to create a regional framework to achieve that ideal of persistent presence.

Now, one of our group members noted that we tend to address such challenges only when incidents trigger a national, regional, or international response. He noted that we rarely anticipate and appropriately respond to potential threats, thereby making changes in our security practices before a triggering event. His quote was, "We are great at autopsy, but lousy at prediction."

So let me close by building on this thought on behalf of my group. We must work together to enhance regional and global MDA. You are all keenly aware of the real and potential threats that we face in the maritime environment. We must create and sustain a sense of urgency to avoid the need for a future maritime incident autopsy. Thank you.

Dean Robert Rubel:

Next up will be Europe A, Commodore Grimstvedt from Norway.

EUROPE A

Commodore Bernt Grimstvedt, Norway:

Admiral Roughead, distinguished leaders of navies, ladies and gentlemen, before I start the presentation, I would like to give some initial remarks. First of all, it's a great honor for me to address you this afternoon, at this podium in this auditorium named after such a great admiral as Spruance. It reminds me about our professor in naval history when I was a midshipman, when he took us through the Pacific War during the Second World War. As you all probably remember, there were three great admirals out there: Halsey, Spruance, and Nimitz. And he told us that Halsey could win a battle, Spruance could win the campaign, but only Nimitz could win the war. So I'm proud to be here.

Question one was related to current MDA efforts and how to improve regional maritime safety and security within the region. Europe A countries belong to a region that has very sophisticated infrastructure. It's well organized in terms of MDA, but the group concluded that, of course, there is always room for improvement.

The group also discussed what we called the "too much, too little info" syndrome. How do we identify what we really are looking for? The information systems are also diverse within the separate countries and providing a common MDA picture is often difficult. Agencies and countries have different responsibilities and jurisdictions over the same type of information, thus causing possible delays in both dissemination of information and in the decision-making process.

The group also concluded that "trust" is a key word—trust among partners, trust among countries, trust among agencies. And, finally, on question one, we have to establish common norms, and one of the group members suggested that the NATO norms regarding words as "trust," "cooperation," "precaution," "accountability,"

and "reciprocity" could be used as a model for interregional and international MDA information sharing.

Question two was related to sharing information within the region and we have concluded that improvements have been made. During these days, we have gotten presentations on a few of them, like the SUCBAS [Sea Surveillance Cooperation Baltic Sea] in the Baltic Sea, the V-RMTC [Virtual Regional Maritime Traffic Center] in the Mediterranean, and the NATO Shipping Centre located in London.

We have a few new countries represented here at this nineteenth symposium and I think everybody in the group was really happy to hear that Russia stated very clearly that it has had a substantial improvement related to information sharing over the last years. We took also into consideration that the recent improvements in communication technology, such as INMARSAT [international maritime satellite] and SATCOM [satellite communications], have made MDA awareness systems more available not only in our region, but also worldwide.

The information that is available today is so great that the group also discussed the problem of discerning what applies to the different stakeholders. Regarding AIS [Automatic Identification System], we concluded that AIS will probably be the primary transponder system for ships, but it is possible to increase the preciseness of the information and thus give AIS a better platform to be included in the MDA. And finally, yes, we are ready for the next step in the European A region, but we don't have any discussions about what [it] might be.

Question three is about sharing information across regions. First of all, I'd like to present an example of such information sharing across regions and that's the EU operation outside the Horn of Africa that has established a Web site that is accessible to everybody where you can enter and share information. But the basic and even more important question is do we really need interregional information systems and, if we do so, how will they be managed and by whom? There is a need to establish appropriate protocols. The possibility exists for information exchange regions to happen automatically, but once again, their protocols must be appropriate in order to have this as effective as we would like to.

Technology is not that difficult. I hope you remember that during Admiral Grenstad's presentation for the SUCBAS, he talked about making agreements rather than building technology. I think that's a key element to success [with] so many nations, like those in the Europe A group, that it's very important to put the agreement first and then build technology.

I would like to give you another example. Everybody here has at least ten credit cards and I'm amazed that my credit card issued in Norway is valid, more or less, all over the world. I can put it into a wall and I get money out of it. That tells me two things: information systems are available and trust has been established.

Then what are regions? Regions are not a single entity. Regions consist of countries, consist of interests, and solutions must be based on the comprehensive, multilateral approach rather than a narrow, regional approach.

The major obstacle in this context might be the conceptual one. We need to think not merely about the physical domain, like regions and technology. Focus must also include mind-sets and collaboration among countries and interest groups.

Question four, concerning establishment of SOPs, exercises, and naval presence—yes, in our region, we have had information-sharing SOPs since NATO

was established 60 years ago, and we think we can rely on that system and use it in our region. There are also a lot of military exercises which include MDA in our region, but that's more part of an exercise which has a more advanced objective. What we see, unfortunately, is that the civilian agencies are taking more and more of an increasing role in participating in the exercises.

The Arctic was mentioned in the group. This is a new challenge to everybody. If we foresee, as some do, a comprehensive increase in the maritime activity in the high north, we must then take into consideration that lack of infrastructure, lack of search and rescue resources, the communications are difficult, and the environment is extremely vulnerable in the Arctic. This could cause another challenge to the information systems related to MDA, as many countries do not have the capability of screening the Web or all the information systems that are available out there. We need to provide [others], especially small nations, with the necessary resources to carry out inventory of all available tools.

Finally, question five related to the existence of MOCs and common efforts. In our region, there are a number of maritime operations centers, both nationally run and run as part of, for example, NATO; and there [is], as the group sees it, no need to take any initiative to increase the number of MOCs.

We have some success stories out there. The group agreed that we must take advantage of these success stories, like, for example, Somalia. Here is a challenge to all war colleges around the world—use the experience and use them as tools for improving the MDA awareness.

Safety and security are basic needs for MDA, but we also noted that other agencies would like to have information coming out of such a system that might be classified or need to be protected by other means. We must establish routines and systems that leverage the capability and make it possible for other agencies to also gather information from a security-based system.

Different national legal codes require protocols and laws for MDA for law enforcement purposes. This is very important, and several group members mentioned this especially. Now, we must consider researching and exploiting best practices of information sharing used in other organizations. There are commercial organizations that have comprehensive and secure information systems, the law enforcement environment has it, and, also, the scientific environment [makes] extensive use of information systems. We are sure that there are some best practices to learn from them.

And, finally, an honest broker is very important. Much of the information that is accessible through our systems contains commercially sensitive information and we must try to preserve the confidentiality of such information to all possible users.

To question C, "Are NATO or regional groups doing enough in your region?" —yes. We don't think there is any possibility that nations in this region would prioritize to carry out MDA operations alone in Europe A region. There are needs for our resources in other places in the world.

Finally, if you want to take something away and back home from this short presentation, it must be two things: (1) MDA information sharing is about having a multinational approach and (2) build trust, trust, and more trust. Thank you, ladies and gentlemen.

Dean Robert Rubel:

Now we'll hear from Europe B, which is Captain Aurelio de Carolis from Italy.

EUROPE B

Captain Aurelio de Carolis, Italy:

Admiral Roughead, Admiral Wisecup, distinguished chiefs of navies and coast guards, ladies and gentlemen, I will present the results of Europe B working group. This is my task on behalf of my working group and this is my privilege today.

The results of our working group on MDA refer to the Mediterranean and Black Sea regions and they will be summarized in the following slides. However, prior to starting it, I really wish to thank my distinguished colleagues from the navies of Bulgaria, Cyprus, Malta, Turkey, Ukraine, and the United States for their excellent support and for the teamwork that we set up in such a short time. I would also like to thank the support provided by our moderator, Professor Thomas Fedyszyn, and by our facilitator, Lieutenant Commander Scott Brendan from the Naval War College.

Several initiatives are ongoing in the Mediterranean and in the Black Sea regions with a significant cooperative effort to improve regional MDA. Just to give some examples, we have the Black Sea Force, the V-RMTC, the 5+5, the Eurasian

Partnership, the Black Sea Border Police Coordination. There is a big effort and this effort supports and is at the same time supported by ongoing operations that we have in our region.

To give you some examples, we have OPERATION BLACK SEA HARMONY, OPERATION ACTIVE ENDEAVOR by NATO, OPERATION MEDITERRANEAN SHIELD, and we also have an important operation in front of the coast of Lebanon by the Maritime Task Force that is run and is under the operational control of the United Nations. Therefore, many navies are operating in our regions, even countries that are not in the region. Just to give an example, Indonesia is involved in United Nations operations off the coast of Lebanon. All these operations and other regional exercise are generating a large cooperative effort that goes even beyond the boundaries and the main regional organizations and alliances that we have in our region, such as NATO and the European Union. This cooperation, however—this is one of our findings—would improve if all regional countries would be participating, especially those countries that have never been involved so far.

There are also subregional groups in our region and they cooperate at a different level—to mention just some of them, the ADRION, the initiative for cooperation between the six countries in the Adriatic and Ionian Sea; the 5+5, just mentioned, between five Northern African countries and five Southern European countries in the western portion of the Mediterranean. All this generates additional synergies that contribute to the development of regional MDA in our region.

Maritime security requires information sharing and, therefore, it [benefits] significantly from interagency relationships; therefore, agencies are important. However, there is a panoply of agencies that are active in our region with respect to maritime security and maritime data sharing and these, we found out in our working group, lead to a proliferation of systems that often do not talk to each other. As a consequence, we have a growing technical complexity, and, of course, the operational effectiveness is in some way suboptimized. However, no matter how paradoxical this may seem, the situation is politically acceptable, because the way it is in this particular moment, it avoids conflicts among the different actors that might hamper the particularly delicate stage of the MDA development in which we are in this particular moment. Therefore, there are inefficiencies but we have to be ready to accept some of them, at least in the short term. Of course, simplification is clearly required, at least in the long run, and that would be a fruitful ground for the interagency process in our region.

We all agreed in the working group that regional information sharing improved in the last few years—it improved significantly. The exchange data volume in all the systems that operate in the region has grown dramatically, but quality still is an issue and this [is] because the main maritime data sources are the AIS and the newly arrived Long Range [Identification] and Tracking system, which is, again, connected with the AIS. This means that we have big masses of information, because these systems provide us with it, but sometimes since these systems are not mandatory for all commercial ships and boats, such as pleasure boats, and [for] some places the threat is there, there's a problem; and also, false data can be entered into these systems. Therefore, big volume, but quality's still an issue.

Furthermore, there is cargo information. That is a special field, cargo, and normally, it is not shared, because of economic sensitivities and, for sure, the position of a tanker is part of the added value that the shipping company can get out of it. This does not apply to line ships like containerships, because we do not know exactly where they go and what time they would be passing on this particular position

and sometimes even the pilots don't know that. Therefore, we have BLACK SEA HARMONY, we have MSSIS [Maritime Safety and Security Information System], we have V-RMTC. All provide a significant contribution to the MDA in our region. In addition to the AIS, some of these systems also provide some higher-quality information; we consider it as certified information. That is the information not coming from an AIS, but it's coming from port authorities. Many of our navies in our region have a direct connection with the port authorities and this is information that adds up on top of the AIS.

We concluded that many navies play a central role in the regional integration of local MDA in the region of the Mediterranean and Black Sea, with a contribution that comes also from navies, as I said before, from nonregional countries, such as Belgium, the Netherlands, the United States, that operate in the Mediterranean and provide a huge contribution to the MDA.

We also found out that the special form of interagency approach is required for our navies to continue playing a central role when MDA opens to the international dimension. We, therefore, are reminded of Admiral Roughead's words during his opening speech when he introduced the new "combined interagency approach" that may lead to an important step ahead, to actually view maritime security in a comprehensive perspective, because interagency is a big issue at the national level, but then we go international and, therefore, this approach has to be combined, multinationally.

In terms of trans-regional exchange of information, we found results that were pretty much in line with the other groups, especially what has been said by Europe A.

Information sharing can be eased when players from different regions are members of common organizations and alliances—this is a plus—or if they enjoy partnerships that are based on historical legacies or current political and economical relations.

We also found that almost all the countries represented in our working group are currently involved in a trans-regional cooperation project fostered by exercises,

training, and, of course, symposia. This process is facilitated in the trans-regional development of MDA and starts by focusing on the lowest common denominator. The lowest common denominator is decided by what everybody is willing to share and is also easy to share. This means to pursue, for instance, unclassified data with limited numbers of parameters. If cargo is an issue then we don't require them to fill that particular field, to avoid the barriers that may be raised when individual sensitivities are affected. We should start with these minimum denominators that are common possibly to all the players.

As a possible solution, therefore, we foresaw a "federated" approach and this is pretty much in line with the discussion by the group Europe A. Who runs the system? Well, if it is a federation, that's not going to be an issue. Many countries are doing such with the Trans-Regional Maritime Network in our region.

A federation of networks would broaden the regional databases relying on regional legal frameworks with *ad hoc* additions to those legal frameworks that allow the global connectivity. This approach would minimize overall costs of transitional development and this has been said by Group Europe A as well, because the infrastructure, whether it is software or hardware, would remain almost unchanged in

the single regions and then it's not that difficult to have databases be exchanged by different systems. As a matter of fact, we are talking neither about the single system that manages the global MDA, nor about a "system of systems." That still is a quite complicated thing. In a federative approach, efficiency would be based on the existing maritime surveillance systems.

We also realized that a step-by-step process would permit [us] to credibly and effectively implement trans-regional MDA, because going step-by-step, we can best address national needs, taking into account different regional environments.

All this may lead us to a spot, a sort of equation. We might call it the Newport MDA equation, whereby a "federative approach" relates to information sharing in the same way as a combined interagency approach relates to maritime security.

This slide exemplifies the federation of regional networks. It is just an example. We have a Region A: they have their own infrastructure, hardware, software. They

have the important thing, that's the legal framework represented by a regional operational arrangement. If we look at another region, Region B, what we actually need to have these two regions talking to each other, rather than the specific technical software and other technical arrangements, [is] an operational arrangement. This operational arrangement has to be very easy because it sits on already existing operational arrangements and that would allow the exchange of information.

Of course, there are problems that need to be overcome and we reported them on the slide. Lack of trust has been already highlighted as an important issue, but, also, we would like to point out the national legal caveats that sometimes prevent

sharing. For this reason, it is important to look at the minimum common denominator that we introduced before.

In terms of results, we acknowledged within the working group the great improvements that we had in our region in terms of telecommunications, especially thanks to the efforts by regional and subregional organizations or initiatives that are active in the Mediterranean and in the Black Sea. We have NATO, European Union, Mediterranean Partners, Barcelona Process, 5+5; and, therefore, we train among ourselves, significantly, and navies have a central role in this.

Particularly positive [is] the increased number of exercises aimed at MDA and their growing level of participation. A global MDA exercise, of course, might boost the data sharing in the trans-regional dimension, and it might move on from an already effectively working platform such as, for instance, the T-RMN.

Overall, we also found that constant security presence has improved only marginally, because many navies in our region have recently increased their commitment to extraregional areas, such as the Gulf of Aden for counterpiracy operations. All this boils down to fewer assets at sea. That requires sharing information in order to have a better knowledge with fewer assets, better knowledge of what is happening at sea, and, therefore, a request for more MDA.

In a few words, we should exploit the combined interagency approach that can let us leverage all the civil platforms that are at sea, other military platforms employed by other agencies, and also the other agencies as well.

In terms of maritime operations centers in our region, there are several maritime operations centers, as reported on this slide. They include operation centers

also run by other agencies, agencies that are not directly related to navies. As you can see, we have [Maritime Component Command] Naples, NATO; we have the operation center of Sixth Fleet, still in Naples; and we have Eregli in Turkey that runs OPERATION BLACK SEA HARMONY; then we have the Black Sea Border Patrol Coordination Center; and we have also national MOCs in each country; and we have the V-RMTC national hubs; therefore, lots of MOCs in the area.

As a final remark, we observed that an overlapping membership to different initiatives, organizations, and alliances, which typically happens in the regions that we are talking about, besides requiring participation in several different MDA systems, is probably, at the moment, the best way to improve MDA. This allows [us] to better face MDA needs generated by the growing commitments of some navies, with fewer assets to patrol our regional sea where "sea-centricity," as has been highlighted during this symposium, is a paramount objective.

This concludes my presentation.

Dean Robert Rubel:

Next we'll hear from Colonel Abdullah Dashti from the Kuwaiti Navy.

GREATER MIDDLE EAST, ARABIAN GULF, AND GULF OF OMAN

Colonel Abdullah Dashti, Kuwait:

Admiral Roughead, President of the Naval War College, professors, distinguished guests, ladies and gentlemen, good afternoon. I have, first, the honor to represent

the Middle East and Arabian Gulf and the Gulf of Oman. The slides you will see will represent some glimpse of the rich discussion we had two days ago.

First question [had] two parts, concerning the MDA engagement and cooperative efforts to meet a country's needs, as well as how could they too meet the need to improve regional maritime safety and security.

The discussion had agreement, disagreement, consensus, knowledge. However, we came to some points as displayed in front of you. MDA is still in its infancy stages; however, there is still room for improvement. As two MDA arrangements are currently being used, we put forth these two examples in Europe: the Web site system, which is unclassified, open, inexpensive; as well as we put forth the other example of the CENTRIXS [Combined Enterprise Regional Information Exchange System] as Admiral Hogel mentioned in action in Bahrain. Truthfully, it's good; it's secure; however, it's limited to the coalition and expensive and complicated. I still have a problem, personally, operat[ing] it.

What we need is the best of both systems. What we need also, we need an MDA system scalable, affordable, reliable, and easy to operate. The question came up of NGOs [nongovernmental organizations] and the private sector. This is an open question—we can take it with us and we can think on it. Shall they have a role or not? We do have some kind of concern about the bureaucracy, about the security and confidentiality of the system; however, they do exist, it's very important, and they have to take a role. Some said no, some said yes. This is an open question for the audience—the NGOs also.

The representatives also discussed what kind of capability or information each state needs to provide to make MDA available resources for all of us.

Second question: This question has three parts—it's information sharing within the region, local collaborative efforts being integrated, and what are the reasons for not doing so?

Most of us felt the need for collective agreement is very important. We need more than the region involved. We came to that [conclusion], and, also, the importance of cooperative efforts between some countries. We, Kuwait and Iraq, had an agreement a year ago on interoperability so we could manage to build confidence. We signed this agreement with Iraq and it is working. It may be primitive; however, it does have good [possibilities] for confidence-building measures in the future.

The representatives have also discussed the impediments, limitations remaining to be overcome. As the previous presentation mentioned, trust, again, trust, trust, trust. My group had Pakistan, India, Iraq, and Kuwait. This is why we covered three questions out of five. We need to have trust. I'm sorry to say that. But, as well, we need political will and approval. Talking off the record, some people say this is not our job. We are navies. The government has to discuss this kind of stuff. Yes, while we may be agreed here, however, when we go back, some governments disagree with us. I think the level of discussion about this should go up more politically and higher than the military, and also, the [discussion of] capacity and the resources.

Last on this slide are existing regional issues. Some have existing issues with border disputes. We understand that very well at sea.

The third question, which consists of two parts, is regarding Panel One's presentation as well on improving information sharing across regions. The representatives have had different opinions on the value of cross-regional information. We all agreed that sharing depended on the individual needs and concerns. Some came up with a very good idea and many felt that a single-layered system had advantages over multiple systems. An example is very simple. We take Interstate

Highway 95 to Boston, [and] there are a lot of exits. Whatever you want, you take the exit you want. The system should be like a highway with many exits.

And also, the representatives discussed utilizing international organizations such as IMO. We may think of bureaucracy, yes; however, we have to believe in the international regime. We have to believe in the international umbrella and this is where we came up [with the thought] that there can be tension between the international organization approach to separate issues from local politics and the inherent local nature of the problem.

For example, a South Korean aircraft can fly over North Korea. [This is] very simple because this is the [International Civil Aviation Organization] system and the aviation system of the world. We can use these international organizations to overcome other problems. Obstacles? Of course: cost scalability, liability, and ease of use.

That concludes my presentation. To summarize, we all need MDA, but what kind of MDA system do we need? That's the ultimate question. And, second, shall we have more of a role for nonmilitary people to come in on board or not? The third is the architecture of the system and what that kind of system does and how is my country to pay for it?

Thank you very much.

Dean Robert Rubel:

Now we'll hear from North [America], Central America, and the Caribbean. Admiral Espino Ángeles?

NORTH AMERICA, CENTRAL AMERICA, AND THE CARIBBEAN

Rear Admiral Horacio Espino Ángeles, Mexico:

Good afternoon, I will ask you all to put on your headsets, because I will speak in Spanish. [Translation from Spanish follows]

Before I start, I would like to thank you for the opportunity to be here before you as the spokesperson for the group from North [America], Central America, and the Caribbean. This panel was composed of Canada, the United States, Nicaragua, Dominican Republic, El Salvador, and Mexico.

During the panel, we talked about all the issues that are faced in the Central and North American region. We have common problems, such as drug trafficking, people smuggling, arms trafficking, and ways which we can face these issues through MDA as well as ways in which we can improve the relations among countries that are part of this northern region.

Throughout the course of our deliberations, one of the issues that came up was that countries, like Mexico, have serious legal barriers to overcome in order to become a part [of] multilateral and bilateral agreements. So what must we do to overcome these obstacles? Throughout the panel, we agreed that such obstacles could be overcome through initiatives at the level of the armed forces since there are the necessary constitutional elements that allow for further cooperation.

We also saw that other countries, such as the Dominican Republic, were in need of further cooperation in order to undertake their operations. They required more fuel and more resources. There is individual progress, albeit no collective progress.

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"Connecting Navies, Building Partnerships"

North, Central America & Caribbean

1. *Based on discussions on collaboration among navies, (a) How well do current MDA engagement and cooperative efforts meet your country's needs? (b) How could they be tailored to meet your needs and improve regional maritime safety and security?*

Technological issues are serious but solvable, legal issues remain, human relations are key

- **Progress is being made concerning technology**
- **Legal framework is an obstacle**
- **Interagency cooperation and technical cooperation are occurring**
  - Technological issues: quality and quantity of data
- **Operational resource constraints (fuel, etc) hinder ability to act on information received**
- **Technical means will not solve MDA problem – human relations/partnerships are critical**
  - **Human relationships/partnerships are critical to overcoming institutional and legal barriers**
- **Trust between countries is critical**
- **No regional initiative to bring national efforts together**
  - Progress in individual cases, not tied together in regional process
  - JIATF-S has narrow focus (counter-narcotics) - MDA requires broader focus
  - NAMSI – has had a positive impact among three North American nations – especially Mexican-US cooperation
- **Information sharing is problematic –**
  - Sharing data before fusion and analysis may help

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North, Central America & Caribbean

3. *Regarding Panel 1 presentations on improving information sharing <u>across</u> regions, (a) Would any such approaches work for linking your region to others? (b) What practical obstacles would need to be overcome, if any?*

- Certain problems – including terrorism, narco-trafficking – are not confined to certain regions and may be interrelated . A global perspective and approach may be required
- MDA is integration between nations - determinants are willingness and trust
- How can we increase willingness and trust?
  - Mil to mil contacts (MOUs, etc)
  - Economic agreements to reduce trade barriers (NAFTA) are in place – is it time for a security DRCAFTA/NAFTA? Can security and political elements be added to existing economic agreements? Security Prosperity Partnership (SPP) meetings are held annually and could be the foundation for further security cooperation
  - Civilian governments need to build the necessary relationships and remove internal obstacles – Military organizations can pressure civilian governments to enable greater cooperation
    - Exercises are great facilitators of international cooperation –especially concerning info-sharing & trust building / within national governments info sharing must be improved / some militaries are working with national governments to remove obstacles to regional cooperation

Cooperation is still an obstacle; although there is technological cooperation, there are countries that don't have the same opportunities at their disposal to make the most of its use.

We also came to the conclusion that we need to develop the necessary means to forge mutual trust and information exchange needs to be reliable and expeditious. We saw that there were a number of agencies that were producing intelligence, although, unfortunately, they weren't working in concert and, oftentimes, did not produce the information in a timely fashion, which renders it useless at times.

What can we do then so those intelligence agencies can act in concert so information flows in a natural and expeditious way? Well, this must be achieved through agreements, agreements that are bilateral or multilateral in nature. We have some such agreements in the area of trade, such as NAFTA [North American Free Trade Agreement], and through these trade agreements, we could consider extensions so that we can also forge information exchange agreements among the countries.

How can we achieve more cooperation? We agreed that one of the paths towards greater cooperation and collaboration was the ramping up of joint exercises among nations. We need to increase the number of exercises in order to develop mutual trust in the first place and then in order to develop interoperability.

In Mexico, we have fourteen CUMARs [Mexican Unified Operation Centers] in operation and that has been quite an accomplishment for our navy's

interoperability. In sum, we can say that the first steps on the path towards better understanding in North and Central America are being taken, and successfully so. We can also conclude the joint exercises are the best way of achieving integration

and mutual understanding. We also concluded that each country, through its armed forces, must exercise pressure on its legislative bodies so that we are able to

eliminate the legislative obstacles that hinder regional integration. In other words, faith, trust, exercises, and integration should be the common denominator for our armed forces. Thank you.

Dean Robert Rubel:

Okay, we'll finish up with the South American group and that would be Rear Admiral Lopes de Moraes Zamith from Brazil.

SOUTH AMERICA

Rear Admiral Wagner Lopes de Moraes Zamith, Brazil:

Admiral Roughead, Admiral Wisecup, distinguished delegates, admirals, ladies and gentlemen, first of all, I would like to say that I'm much honored to be here before such a distinguished audience. I feel also privileged to give you our group's report on behalf of my colleagues of the South American countries and, therefore, I would also [like to] take the most of this opportunity to thank them for allowing me to carry on with present[ing] the summary.

The issues we have discussed are related to Maritime Domain Awareness and information sharing from our regional perspective. The outcome of our productive work will be summarized along the forthcoming slides. Before we go through the

answers to the questions we had to deal with, I'm going to provide you with some introductory points.

Generally speaking, there's no doubt about the utmost importance of the Maritime Domain Awareness as one essential segment underlining the whole concept of the maritime security. There is also a common sense that the information sharing, with its intrinsic characteristic of enhancing Maritime Domain Awareness, is a very useful and important tool for the decision makers. [Among] all the key points that were brought up during our work session, the question of reciprocity was highlighted. Any country willing to provide information to any system probably will expect to also receive data.

It was also emphasized that the building of trust was one of the main factors to allow information sharing between countries, mostly when we are talking about classified data. In this case, the sharing of information will usually be preceded by a specific bilateral agreement in order to guarantee correct management of the related data.

When we are talking about the South America region, we are actually talking about distinctive realities, unequal budget constraints, inequality of technological development, and different countries' concerns. This region from a geographical perspective could be divided in three subregions: Atlantic, Pacific, and Caribbean. Even though Maritime Domain Awareness and information-sharing topics have been considered of high relevance by the South American countries, due to our distinctive realities, each one is moving forward in the same direction, but at its own pace. On this effort, the regional forums, like Inter-American Naval Conference, specialized Inter-American Naval Conferences, bilateral naval talks, and joint operations have contributed to foster cooperation and cooperability among South American navies, in addition to strengthening relationships and creating mechanisms of integration and trust building.

The question posed is what challenges exist to achieving MDA. Regarding this question, we realized that small boats, fishing boats, go-fast boats, and semisubmersibles are very difficult to track with typical systems of detection and surveillance, and they could represent a threat if not detected in a timely fashion. It's important to point out that these types of boats certainly will not be using any cooperative system of position information, like AIS, Long Range Identification and Tracking, and so on. In fact, they can approach your lines, oil platforms, or other sensitive points undetected.

On the other hand, it's relatively difficult to maintain sufficient assets, readily available to patrol the area of interest in an effective manner. Furthermore, it's very important to make efforts to engage and integrate all agencies involved with maritime activities that could provide any useful data to fulfill the MDA purpose.

We found that despite having some bilateral and multilateral information-sharing arrangements in place, they could be improved.

Regarding the first question, the answer is yes. At this point, it would be very interesting to talk about the South Atlantic Maritime Coordination Area, CAMAS. Since it is a unique and emblematic regional example of information sharing, this acronym was mentioned yesterday morning during the Brazilian Navy Commander's [Admiral Julio Soares de Mouro Neto's] speech. This agency was created in 1966 with the purpose of tracking merchant ships and protect[ing] sea lanes in

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South America

1. *What challenges exist to achieving MDA?*

   - *Tracking of small craft that are "informal" traffic is problematic, especially over the horizon from shore. These include fishing boats, go-fast and semi-submersibles*
   - *There are never enough Maritime Patrol assets available.*
   - *Lack of multi-agency information sharing and integration.*
   - *Even though we have some bilateral and multilateral information sharing arrangements in existence, they could be improved.*

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2. *(a) Has information sharing <u>within</u> your region improved?*
   (b) How well have local cooperative efforts been integrated?
   (c) If you have seen little or no improvements, what are the reasons?

   - Good progress in the South Atlantic among Brazil, Argentina, Uruguay, Paraguay (CAMAS)
   - Information sharing has improved due to improved systems and better relations at the political level (in some cases).
   - To some extent lack of resources and political issues still limit the ability to share information more fully.

the region. Argentina, Brazil, Paraguay, and Uruguay are members of this mutual, multilateral agency and from its beginning information sharing has been carried out between them. We are certain that CAMAS is one of the oldest multilateral agencies involved with maritime information sharing. This is an agency that has been working with a permanently established structure in which the coordinator changed from country to country in a rotational basis, every two years. The coordinator and admiral work with liaison officers who are the representatives from the members' countries. Being aware that the information-sharing system could be improved using new technological architecture, the Brazilian Navy, as the current CAMAS coordinator announced during the MDA conference held in Chile in December 2008, had already started to develop an information-sharing regional center in which participation would be offered to the countries belonging to CAMAS. At this time, the offering has been tendered and accepted by all CAMAS-participating countries. It's important to say that the specifications of this new information-sharing system were suggested by all countries of CAMAS. The prototype of the center is due to be ready for testing by July 2010. Depending on the results and evaluation of the forthcoming system, it could be offered to other countries of the region, because it's being developed to accommodate additional nations.

Another relevant issue stressed during our discussions was the importance of working on the political level to achieve a political will and the proper support needed to improve the MDA.

Regarding these questions [on the slide below], we can say again yes, concerning the information sharing across regions. We have got some recent valuable experience worthy of mention. The Brazilian Navy's Maritime Traffic Information

System, called SISTRAM, has ended its integration tests with the Italian Navy's Virtual Regional Maritime Traffic Center, V-RMTC, and it's ready to join the trans-regional maritime network.

Additionally, in a couple of months, we are completing the interface we have been developing to integrate SISTRAM into the U.S. Navy's Maritime Safety and Security Information System (MSSIS). I would also like to reinforce the successful experience of Chile with the Virtual Regional Maritime Traffic Center Americas, VRMTC-A, as it was indicated by the Chilean Navy Commander [Admiral Edmundo Gonzáles Robles] during Panel Two.

As you can see, our region is striving forward on information sharing based on trans-regional experiences. We are confident that depending on integrational results, more countries will be motivated and willing to participate. We have listed in this slide some obstacles that would need to be overcome.

Finally, the group members agreed that the United States Joint Interagency Task Force South and the Maritime Analysis and Operational Center on Narcotics (MAOC-N) located in Portugal are effective maritime operations centers for drug-trafficking operations and good templates for interagency and international cooperation in other fields.

I would also like to mention the Colombian Navy's initiative with the International Maritime Analysis Center for Narco-Trafficking at Sea. The center is due to be ready by the second semester of 2010. Many countries have already demonstrated an interest to be part of this center. With respect to the new U.S. Fourth Fleet Maritime Operations Center, some South American countries have already accepted U.S. Fourth Fleet's invitation for sending liaison officers.

Now I have finished our report, I would like to thank you for your attention here. Thank you.

Dean Robert Rubel:

Well, as everybody saw, I didn't have to bring out any yellow or red cards and we have quite a bit of time left.

Vice Admiral J. Mudimu, South Africa:

I have an issue to take with the group from Africa. I don't know how they arrived at some of the answers they provided here. They referred to the issue that the MDA has improved since the arrival of the partnership station. I don't know how they arrived at that. There is a lot of reference, for an example, to Task Forces 150 and 151. How have you arrived at that? In the reality of the African situation, we're a member of the UN, the African Union, and so forth. These are the structures from which we derive our mandates. If the United States participates in any mission in South Africa, it will be the relationship between South Africa and the United States, or the relationship between Angola and the United States, which you do not necessarily head with an admiral, because you are not the members of that [force]. So the reflection in terms of the terminology used in that presentation, it does not capture or contextualize the reality of the situation as obtained in the African countries. I think that presentation needs correcting to reflect the context. You know we need to generalize. I think that certain countries, perhaps, feel the impact of this partnership station. It's not necessarily a global view of the African countries in terms of

that particular thing. I saw a lot of incongruences there. I'm not sure really how they arrived to some of them.

Dean Robert Rubel:

Sir, I would throw it open. If I understood, it was more of a comment than a question on that. Are there any other comments or questions? Well, let me say for my part that, as I looked at the pattern of out briefs here this afternoon and compared what I saw to 2007 and before that in 2005, what we see here is a step forward in terms of more practical matters, more detailed descriptions of specific things that we need to do to move forward; so, just in the pattern of the out briefs I've seen in the past three [symposia], there's substantial progress being made, I believe. So I congratulate all of you for moving forward on this, not to mention the substantial progress on actual information sharing and coordination of efforts that has been very clear from the presentation of our panelists. Do I have any more questions or comments? I guess not. With that, we're done a bit early. I believe it's my privilege to turn the floor over to Admiral Roughead for some closing remarks.

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Closing Remarks

Admiral Gary Roughead
Chief of Naval Operations

Well, you can tell it's a Friday afternoon and a lot of people have to travel. But I think that the fact that so many of us are here for these final moments is indicative of the effort and the strength of what we have been doing for the past couple of days. Before I provide any closing remarks, I would like to thank Phil Wisecup, the President of the War College, and the many, many volunteers that have made—well, in our business, they're not so much volunteers—but the many people who have come in to help make this conference a reality: the largest ever, as we have said on several occasions, but I would say that the most important part that they enabled was the atmosphere, the way that we have been able to come together in many different settings, whether it was in the panel discussions, the regional breakouts, [or] the wonderful discussion that the chiefs had in our private session, but also in the sidebars and in the social events that took place. So, Phil, on behalf of all of us, to you and the great team that you have assembled, I thank you for all that hard work and the success of that. Thank you. As I said, I think for me, and to echo what [Dean Robert] "Barney" [Rubel] said, the content, the tone, the substance, the engagement that we've had at personal levels I think have been extraordinary for ISS XIX. That, in turn, has been a function of, I believe, the wonderful regional activity, and the symposia, and most importantly, the interaction among the leaders in the regions in the various settings, various venues that have kept this momentum going, have kept the discussion going, have kept the dialogue going. But the tone here, the content, has been absolutely extraordinary. I think the regional breakouts are much clearer in the definition and the ambition and, indeed, in some of the challenges that we all face as we try to bring increased cooperation in the Maritime Domain Awareness together.

I was sitting here listening to the conversations and it struck me that communications have enabled Maritime Domain Awareness and Maritime Domain Awareness has enabled communications among all of us and I think it has been an organizing principle.

I'd once again like to thank some of the new countries that have joined us. I hope that you have found this to be a valuable and worthwhile experience. I would encourage you, as you go back home, to engage other countries who perhaps have not participated to share with them and encourage their attendance and share the benefits of being able to come to this.

I think as we leave from here and go back, as I've said, to keep the momentum going at the regional levels, it is so important that we continue that, because I really do believe that it's the regional activity, the energy that gets put into this, the personal relationships that take place, the systems that are developed, the involvement—as has been said on a couple of occasions—where we, as leaders of

our navies, coast guards, or maritime services, have an obligation, I believe, to give the best advice that we can to our political leadership as to how we can help the safety, security, and prosperity in the individual regions. So as we go back and take the lessons, the experiences, the observations from here, I do believe that we can continue to advance this effort. In an age of great connectivity that we enjoy, sometimes it's good, sometimes it's bad, but the connectivity that we enjoy, I believe, enables all of us as leaders to maintain the dialogue among ourselves as we go forward, to exchange notes, to take advantage of some of the mediums that are out there, so that our conversation can continue even though the formality of these sessions may not be present. I think that we now have the means to stay connected in ways that we never have been able to do before and to keep our conversations alive and keep our conversations going.

To circle back on the importance of regional activity, I think that that's where we go, but as Admiral Molestina [of Ecuador] has said, "It's about how do we harmonize all this," and I think that term "harmonize" is one that allows us to begin to bring things together in a very powerful way.

And I would also add my endorsement to the great work that Admiral La Rosa [of Italy] is doing with the trans-regional maritime networks. I look forward as we move on to bring all of that to fruition. I speak for my country when I say I look forward to concluding the agreements that we have in that regard. But I think those are some terrific opportunities that we have ahead of us.

I also believe that as we move forward in this new era, if you will, or in an era where we can take advantage of certain technologies and where countries at a national level will pursue the needs that they may have, I believe it's also very, very important for all of us to keep in mind how important it is for us to stay in step with, and in league with, our partners who, as a result of their needs, their national needs, may not be moving in the same direction. But I think we all have the obligation to stay connected to one another and even though there may be other national priorities that we may pursue and systems that we may procure, it is important that we, as leaders of our navies, always make sure that we are able to stay connected, to stay aligned, because as that old nautical saying goes, "The strength of the cable depends on each link in that chain." I believe it's our obligation to keep that cable strong by making sure we're always mindful of the needs of other countries and [that] we do not get out of step in that regard.

We talked about, in the chiefs' session, the opportunity to use the operational gaming structure and facility to try some things and to bring some of our rising leaders, leaders that will someday sit in our chairs, here into the games to try some of the things that we talked about at regional levels, trans-regional levels. We can do this in an environment where mistakes can be made, things can be tried, and use that opportunity, from that gaming experience, to form discussions for ISS XX. We'll continue to work on that and remain in contact with all who are here to ensure that we all have the same, as we say, sight picture on that.

It has been my great privilege to be able to be part of this endeavor as we've gone forward on two oceans, as we have operated in many places in times of peace and, unfortunately, also in times of war. But it has also been a great privilege and pleasure to see how we have changed over just these last few years, how much more we are connected, how much more we share, and how much more we cooperate.

It is amazing and I believe it's a testament to the great work and the leadership of you and all who support you and your endeavors. And so as we go into the future, it will be upon us to work through the challenges, but most importantly, to be able to see where the opportunities are, to be able to look at how best to take advantage of those opportunities and to use our leadership to move things forward, step-by-step, and, in that process, move down the path of the journey that we all began just a few, short years ago that, quite frankly, has put us in a very, very good position, I believe, for the future.

As I told Phil and his support staff, we here will take a day off and then on Monday, we will begin planning for ISS XX, to look at where we should go with that. So as I said, we now have the benefit of being able to communicate throughout the year in many, many ways. So, as you go back, as you're on those long flights home, think about things that would be helpful, would be important. Please share them and please send them back because our objective is to take and build upon ISS XIX and make ISS XX the best ever. I thank you for that.

I thank you for being here on behalf of Ellen. I would also like to thank you for having, in many cases, your spouses with you. For those whose spouses did not come, I understand the great demands on your time, but, from every indication I have, I think that our spouses had a great time. I can speak probably for more than just myself and say that I leave Newport a much poorer man than when I came. So I think that is a mark of success as well.

Again, thank you so much for a wonderful, wonderful experience here; but most importantly, thank you for your leadership, for your friendship, and for your commitment to something that is bigger than each and every one of us and that is the safety, the security, and the prosperity of the world's oceans and the citizens of the world everywhere, because it doesn't matter if you are from one of our countries or if you are from a landlocked country where the citizens will never see the ocean. Everyone, wherever they live on this planet, depends on the ocean for their livelihood, for their safety, and their security. That is our privilege and that is what we get to do, that is our calling, and it is a true pleasure and an honor for me to stand with each and every one of you on this noble venture. So I thank you for that.

I wish you safe journeys home and fair winds and following seas, my friends. Thank you very much.

APPENDIX

List of Delegates

African Union

Mr. Samuel Kamé-Domguia, OCist

Albania

CAPT Artur Mecollari

Algeria

MGEN Malek Necib
COL Cherif Azzouz

Angola

ADM Augusto de Silva Cunha

Argentina

ADM Jorge Omar Godoy
ADM Oscar Adolfo Arce
CAPT Raul Viñas

Australia

VADM Russ Crane
RADM Allan du Toit

Azerbaijan

VADM Shahin Sultanov

Bahamas

CDRE Clifford Scavella
CDR Samuel Evans

Bangladesh

ADM Zahir Uddin Ahmed
CDR Golam Sadeq

Belgium

RADM Jean-Paul Robyns

Belize

LTJG Soberanis

Benin

CDR Ferdnand Ahoyo

Bolivia

ADM José Luis Cabas
CAPT Hernan Crespo

Brazil

ADM Julio Soares de Moura Neto
RADM Wagner Lopes de Moraes Zamith
RADM Dilermando Lima

Bulgaria

RADM Plamen Manushev
CAPT Mitko Petev

Cambodia

ADM Tea Vinh
LT Tith Saphal

Cameroon

CAPT Francis Betangane
Mr. Jean Moungang

Canada

VADM Dean McFadden
Commissioner-General Gary Sidock
Ms. Julie Thompson

Cape Verde

MAJ Antonio Montero

Chile

ADM Edmundo González Robles
RADM Enrique Larrañaga
CAPT Rodrigo Álvarez

Colombia

ADM Guillermo Enrique Barrera Hurtado
VADM Álvaro Echandia

Congo, Republic of the

CAPT André Bouagnabea Moudzaza
CAPT Joel Gakosso

Croatia

RADM Ante Urlic

Cyprus

CAPT Andreas Ioannides
LCDR Nicolas Lucas

Denmark

RADM Nils Wang
CDR Anders Friishøj

Djibouti

COL Abdourahman Aden Cher

Dominican Republic

VADM Homero Luis Lajara Solá
CAPT Antony Jiminian

Ecuador

RADM Aland Molestina
CAPT Galo Garzon

El Salvador

CAPT Guillermo Jimenez
CAPT Rafael Guzman

Equatorial Guinea

RADM Don Vicente Eya Olomo
CAPT Don Domingo Esawong

Estonia

CAPT Igor Schvede

Finland

VADM Juha Rannikko

France

ADM Pierre-François Forissier
RADM François de Lastic

Gambia

CDR Sarjo Fofana

Georgia

MG Zaza Gogava
CDRE Besik Shengelia

Germany

VADM Wolfgang Nolting
CAPT Markus Krause-Traudes

Greece

VADM Georgios Karamalikis
CDRE Vasileios Kyriazis
CAPT Apostolos Bastas

Guatemala

VADM José Lemus

Guyana

CDRE Gary Best

Iceland

CDR Ásgrímur Ásgrímsson
Director-General Georg Lárusson

India

ADM Nirmal Verma
CDRE R. P. S. Ravi

Indonesia

ADM Tedjo Edhy Purdijatno
RADM Sudjiwo

Iraq

RADM Ali Hussein Ali Al-Rubaye
CAPT Husham Taher Hammadi Al-Hashimi

Ireland

CDRE Frank Lynch
CDR Mark Mellett

Israel

VADM Eli Marum
CAPT Yoram Laks

Italy

ADM Paolo La Rosa
CAPT Aurelio de Carolis

Jamaica

CDR Kenneth Douglas

Japan

ADM Keiji Akahoshi
VADM Kenichi Uchinami
RADM Hiroshi Yamamura

Jordan

MGen Dari Rajeb al-Zaben

Kenya

MG Samson Jefwa Mwathethe
COL William Kombe

Korea, Republic of

ADM Ok-Keun Jung
RADM Tae Min Ha

Kuwait

MG Ahmad Y. Al-Mulla
COL Abdullah Dashti

Lithuania

CAPT Oleg Marinicius

Malaysia

ADM Tan Sri Abdul Aziz Jaafar
RADM Rusli bin Idrus

Maldives

Mr. Ameen Faisal
BGEN Zakariya Mansoor

Malta

BRIG Carmel Vassallo
MAJ Andrew Mallia

Mauritius

Commissioner Philippe Jean Bruneau

Mexico

ADM Jorge Pastor
RADM Horacio Espino Ángeles

Montenegro

CAPT Rajko Bulatovic

Morocco

RADM Mohammed Berrada-Gouzi
CAPT Lahoussaine El Horri

Namibia

RADM Peter Vilho

The Netherlands

LtGen Rob Zuiderwijk
COL Joseph Coumans

New Zealand

RADM Tony Parr

Nicaragua

RADM Juan Santiago Estrada García
CAPT Antonio Santos

Nigeria

VADM Ishaya Iko Ibrahim
RADM D. J. Ezeoba

Norway

RADM Haakon Bruun-Hanssen
CDRE Bernt Grimstvedt

Oman

CDRE Muhammad Al-Farsi
CDR Abdullah Bin Hamood Al Harrasi

Pakistan

VADM Asaf Humayun HI(M)
RADM Tahseen Ullah Khan SI(M)
CDRE Farrokh Ahmad SI(M)

Papua New Guinea

CDRE Peter Ilau

Paraguay

RADM Claudelino Recalde

Peru

RADM Ernesto Ormeño
RADM Mario Caballero

Philippines

VADM Ramon Liwag
RADM Felix Angue
CDRE Carlos Agustin

Poland

VADM Andrzej Karweta

Portugal

ADM Fernando Melo Gomes
VADM Victor Cajarabille

Qatar

BG Ali Al-Mannai
BG Helal Al Mohannadi

Romania

RADM Niculae Valsan

Russia

VADM Adam Rimashevsky
RADM Alexander Zhurkov
CAPT Vladimir Naumenko

St. Kitts and Nevis

LTCOL Patrick Wallace

St. Vincent and the Grenadines

LCDR Brenton Cain

São Tomé and Príncipe

CAPT Joao Idalecio

Saudi Arabia

His Highness VADM Fahd bin Abdullah bin Mohamad Al Saud

Senegal

CAPT Alioune Diop
CAPT Oumar Kane

Seychelles

CMDT Donald Gertrude

Sierra Leone

CAPT Daniel Mansaray

Singapore

RADM Chew Meng Leong

Slovenia

CDR Andrej Androjna

South Africa

VADM J. Mudimu
RADM Bernhard Teuteberg

Spain

ADM don Juan Carlos Muñoz-Delgado Diaz del Rio

Sri Lanka

VADM Thisara S. G. Samarasinghe
CAPT Priyanka Merril Wickremasinghe

Suriname

MAJ Marino Acton

Sweden

RADM Anders Grenstad
COL Lars-Olof Corneliusson

Tanzania

BG Said Shaban Omar

Togo

CAPT Ametsipe Yawo Atiogbe

Turkey

RADM Fikret Güneş
CAPT Ugur Özkan

Ukraine

VADM Sergii Yeliseiev
CAPT Volodymyr Bilousov

United Arab Emirates

RADM Ahmed al Sabab al-Tenaiji
COL Mohamed Al Bigishi Abdouli

United Kingdom

ADM Sir Mark Stanhope
CDRE Steven Ramm

United States

The Honorable Ray Mabus
ADM Thad Allen
ADM Mark P. Fitzgerald
ADM Jonathan W. Greenert
ADM John C. Harvey, Jr.
ADM Gary Roughead
ADM Patrick M. Walsh
VADM Bruce Clingan
VADM Doug Crowder
VADM Jack Dorsett

VADM Jeffrey Fowler
VADM Bill Gortney
VADM Harry B. Harris, Jr.
VADM Richard Hunt
VADM Kevin M. McCoy
VADM Dan T. Oliver, Ret.
VADM Robert J. Papp, Jr.
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RADM Carol M. Pottenger
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RDML Thomas Carney
RDML Dennis FitzPatrick
RDML Jeffrey Scott Jones
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Uruguay

ADM Juan Fernández
RADM Oscar Debali
CAPT Daniel Martínez

Vietnam

RADM Pham Ngoc Minh
CAPT Nguyen Ngoc Vinh

Yemen

BG Ali Ahmed Yahya Rasa'a
LTC Amen al-Ansi