



CUTTING THE BOW WAVE

COMBINED JOINT OPERATIONS FROM THE SEA
CENTRE OF EXCELLENCE

2010-2011
A YEAR IN
REVIEW



CJOS COE 2010-2011 Major Work Items

Maritime Situational Awareness

Provide advice, innovative solutions and support to SACT MSA Concept.

Allied Handbook

Deliver a playbook for coalition forces that train and operate with U.S. Navy assets.

Humanitarian Assistance/ Disaster Relief

Develop a guide for HADR operations from the sea.

EXTAC 789, Tactics on Maritime Counter-Piracy

Address counter-piracy maritime security challenges.

Maritime Unmanned Systems

Move forward the MUS capability roadmap in a joint context.

Joint Sea Basing

Provide advice on logistics and operational support challenges.

2011 Programme of Work Items in Support of NATO

Amphibious Operations Planning Study

Deliver a comprehensive study to identify Tactics, Training & Procedures (TTPs) and planning considerations to mitigate the threat and allow for high tempo amphibious operations.

Information Exchange Network

Develop a concept of an information exchange network on maritime security issues to share unclassified information with state and non-state actors.

Maritime Security Cooperation

Develop a White Paper, "A Framework for Enhanced International Maritime Security Cooperation". Paper will be passed to IMO for consideration as a United Nations resolution.

NATO Joint Operational Sea Basing Concept

Develop a concept which covers the full spectrum of maritime capabilities.

Maritime Security Conference 2011

Theme: "Delivering Maritime Safety and Security in Global Partnership: Creating a Strategic Framework for Maritime Security Cooperation".

Aim: To examine how International Organizations and the emerging Regional Maritime Security Organizations can collaborate together to form a Global Network for Maritime Security Cooperation.

CUTTING THE BOW WAVE 2010-2011

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Centre of Excellence*

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HNLMS Tromp. Photo Royal Netherlands Navy.

Director's Message

- 04** **Vice Admiral Daniel P. Holloway, USA-N**
Commander, U.S. SECOND Fleet
Director, CJOS COE
- 06** **Commodore Jonathan Handley, GBR-N**
Deputy Director, CJOS COE

Annual Report

- 08** **CJOS COE Annual Report**
2010-2011 Programme of Work

Situational Awareness and Interoperability

- 12** **Reserve Force Integration in CJOS COE**
CAPT Donald Pagel, USA-N
- 14** **Maritime Unmanned Systems (MUS)**
LtCol Antonio Evangelio, ITA-F
- 16** **Interoperability Handbook**
CDR Themistoklis Papadimitriou, HEL-N
- 18** **Maritime Support to Land Forces IO**
LT Ryan Haag, USA-N
- 20** **Joint Operations from the Sea: Sea Basing**
LtCol Bas van Rijswijk, NLD-M
- 22** **United Nations Maritime Headquarters Establishment**
CDR Oye Nyaas, NOR-N

Maritime Security, Global Situation

- 24** **UK National Security Strategy**
Dr. Lee Willett
- 26** **CJOS COE and the Challenge of Somali Piracy**
CDR John Schaper, USA-N
LCDR Chris Lutgendorf, USA-N
- 28** **ReCAAP**
LTC(NS) Toong Ka Leong, SNG-N (Retired)
- 30** **Private Security in a Maritime Context**
Mr. Christopher Beese
- 32** **Piracy Today - EXTAC 789**
CDR Mark Coffman, USA-N

Maritime Security, Global Coordination

- 34** **2010 Maritime Security Conference Review**
CDR Pierre Granger, USA-N
CDR Jose Martin, ESP-N
- 36** **Maritime Security & Information Sharing**
Mr. Derek Reveron
- 38** **Legal Aspects of Maritime Information Sharing: Issues and Solutions**
CDR Kim Young, USA-N

Joint and Combined Operations

- 40** **PANAMAX 2010**
MCC (SW/AW) Mary Popejoy, USA-N
MC2 (SW/AW) Rafaela Martie, USA-N
- 42** **Humanitarian Assistance and Disaster Relief: Operation Unified Response**
CDR Yann Le Roux, FRA-N
- 44** **CJOS COE Staff Directory**
2011 CJOS COE Maritime Conference

Disclaimer: The opinions, conclusions, and recommendations expressed or implied within are those of the contributors and do not necessarily reflect the views of the US Department of Defense, US Second Fleet, CJOS COE, NATO, ACT, or any other government agency. This product is not a doctrinal publication and is not staffed, but is the perception of those individuals involved in military exercises, activities, and real-world events. The intent is to share knowledge, support discussion, and impart information in an expeditious manner.

Message From the Director

Vice Admiral Daniel P. Holloway, USA-N

Director,
Combined Joint Operations From the Sea
Centre of Excellence



2010 marked another impressive year in the Combined Joint Operations from the Sea Centre of Excellence's growing history. Since my assumption of Command of U.S. SECOND Fleet and CJOS COE in early August 2010, it has been a true privilege to work with the fine cadre of international officers that comprise our CJOS COE team. I have been truly impressed with their focused work and effort in a broad range of topics relevant to maritime security operations.

CJOS COE aims to best utilize the diverse experience and talent of its staff to benefit the Alliance, particularly in the area of transformation. Our team strives to be innovative in thought and action, as well as collaborative, in capturing best practices wherever they exist, and leveraging them with each nation. To accomplish higher objectives, CJOS COE works on a daily basis to improve interoperability and capabilities of NATO warships, and to provide opportunities to enhance education and training. CJOS COE also assists in doctrine development, which it tests and validates through experimentation.

As the only COE within the United States, CJOS COE works closely with Commander, U.S. SECOND Fleet staff, with special focus on delivering products which add value to NATO and all Sponsoring Nations. Following the simple concepts of "collaborate, publish, and validate," CJOS COE strives every day to achieve its mission and fulfill its objectives. As NATO continues its transformation, CJOS COE will continue to contribute excellent work and insight to our allied partners, with continued focus on joint maritime expeditionary operations, interoperability, and maritime security, so that we will continue to decrease maritime threats and improve overall global security.

DANIEL P. HOLLOWAY
Vice Admiral, U.S. Navy

Director's Vision

To become the pre-eminent source of innovative specialist advice and recognized expertise on all multi-national aspects of combined joint operations from the sea in support of the sponsoring nations, NATO, and other allies.

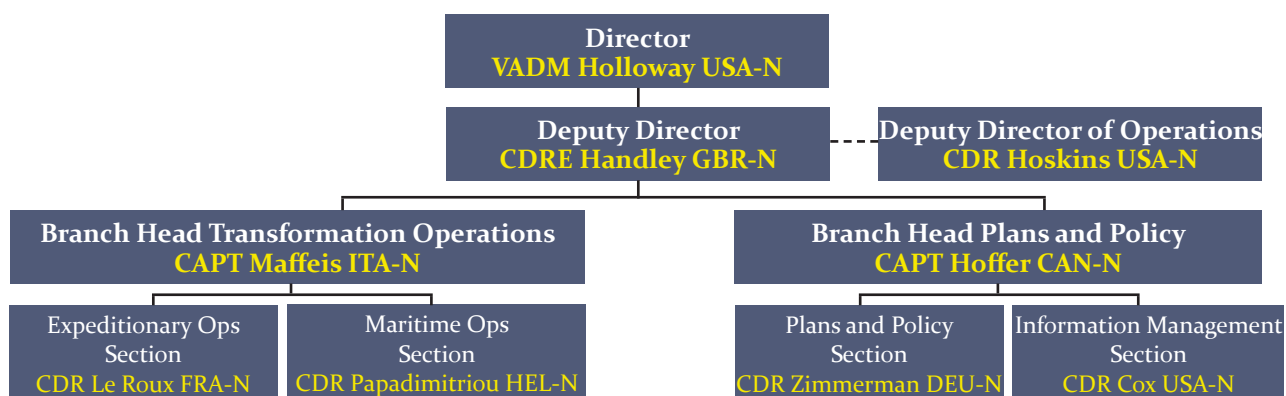
Our Mission

Working in conjunction with the Commander, U.S. SECOND Fleet Staff, the CJOS COE will provide a focus for the sponsoring nations and NATO in improving allied ability to conduct combined joint operations from the sea in order to ensure that current and emerging global security challenges can be successfully solved.

Who We Are and How We Accomplish Our Mission:

In May 2006, Commander, U.S. SECOND Fleet established the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) to provide a focal point for Joint Maritime Expeditionary Operations expertise for allied nations. Headquartered in Norfolk, Virginia, the CJOS COE is comprised of representatives from 13 nations, and is the only NATO accredited Centre of Excellence within the United States. It is one of 14 NATO accredited COEs worldwide, representing a collective wealth of international naval experience and expertise. CJOS COE draws on the knowledge of capabilities of U.S. SECOND Fleet within its shared headquarters, as well as neighboring U.S. commands to promote common “best practices” within the Alliance, and to aid NATO’s transformational goals with respect to maritime-based joint operations. We enjoy close cooperation with Allied Command Transformation (ACT), other maritime COEs, NATO Joint Force Commands, and various national commands. Responsiveness is achieved by shortening NATO decision cycles between COE staff and key experts in the individual Sponsoring Nations by setting up Focal Points of Contact within some of these nations, who put us directly in contact with their relevant Subject Matter Experts.

CJOS COE Command Structure



How We Are Tasked:

Shortfalls in current maritime capabilities/procedures are identified by Allied Command Transformation (ACT) and our Sponsoring Nations, who then task us to review them in our Annual Program of Work. The Program of Work must then be approved by the CJOS COE Steering Committee. CJOS COE Program of Work 2010 contained a myriad of tasks underway or completed; all with strong focus on interoperability of global allies, maritime security, and working to reduce threats to maritime assets. Our aim is to become a preeminent source of innovative military advice on coalition joint operations from the sea. We intend to raise our profile by collaborating with leading-edge institutions, publishing high quality products, and validating them through experimentation and exercise. This is partly made possible because of our established relationship with U.S. SECOND Fleet, who provides the appropriate validation opportunities, thus giving us maximum leverage of our position within their headquarters. We will also continue work with non-military authorities to leverage all their existing tools and to provide best practices on maritime security issues to the wider global maritime security partnership.



Merger of Fleet Forces Command and U.S. SECOND Fleet:

On January 6, 2011 the US Secretary of Defense Robert Gates announced the intention of the Department of Defense to implement a variety of cost saving measures as part of a reform agenda. One of those measures is the disestablishment of the U.S. SECOND Fleet Headquarters. The primary mission of U.S. SECOND Fleet, training and mission preparation, will be transferred to U.S. Fleet Forces Command. A plan to merge the U.S. SECOND Fleet staff with U.S. Fleet Forces Command is expected to be implemented by the end of 2011. While it is expected that 160 officer and enlisted positions will be eliminated during this merger, CJOS COE will remain intact. The core mission of CJOS COE remains the same and the planned Programme of Work will remain on schedule. Measures are in effect to ensure that there is a continuity of command and support while the merger develops.

Message From the Deputy Director

Commodore Jonathan Handley, GBR-N

Deputy Director,
Combined Joint Operations From the Sea
Centre of Excellence



2010 has been an important year in the development of CJOS COE. We have achieved significant milestones on our projects, furthered existing partnerships, and established new relationships. Additionally, we have strengthened our management and analytical capabilities. In doing all this, we have progressed towards our goal of achieving our vision, set in 2006, of becoming *the preeminent source of innovative specialist advice and expertise on all multinational aspects of Combined Joint Operations from the Sea in support of the Sponsoring Nations, NATO and other allies.*

Success of an organization is based on results, tangible evidence to Sponsoring Nations that we are delivering relevant, well-researched and timely products. This year I am proud to say our accomplishments have been wide and varied with strategic relevance beyond NATO, peaking the interest of interagencies, commercial enterprises and the United Nations. For example, in January, Commanders Yann LeRoux (FRA-N) and Rick Adside (USA-N) deployed to Haiti as part of Operation UNIFIED RESPONSE. Embarked aboard USS BATAAN (LHD 5), they were actively engaged in providing relief efforts to many displaced and homeless people. Whilst Rick focused mainly on the logistical aspects, Yann spent extended periods on the ground personally liaising with Haitian officials and civic leaders to meet the needs of their people. Lessons were incorporated into CJOS COE's Humanitarian Aid and Disaster Relief (HADR) guide and Maritime Information Field Guide, as well as provided to USAID for inclusion in their civil-military relations handbook.

In May, the CJOS COE hosted its third annual Maritime Security Conference in Lisbon, Portugal. Focused on the Comprehensive Approach and where it is being best applied in the maritime domain, it drew leaders from a variety of significant organizations: military, civilian, and government; all with shared concerns over the status of maritime security, particularly in the global commons. This group of distinguished and accomplished men and women discussed and offered ideas to help address the many challenging security issues from piracy to the use of the high seas for smuggling and acts of terrorism. Two conclusions from the conference really struck me: the success of groups of nations in various regions of the world in sharing maritime positional data on shipping so that appropriate action can be taken to protect mutual regional interests and, of considerable concern, the lack of genuine understanding of the maritime domain by senior decision makers. Both these issues have been taken forward and included in the CJOS COE 2011 Programme of Work (PoW). Our annual conference is the foremost annual event for maritime security professionals, and provides a great venue to foster relationships, enhance maritime security cooperation, and promote good governance. The 2011 conference, co-hosted by the COE Confined and Shallow Water, will take place in Kiel, Germany. This will mark the first time two COEs have collaborated on a conference with mutual interest.

In June 2010, CJOS COE members tested and evaluated the counter-piracy work, published in EXTAC 789, by working with allied assets under the command of Strike Force NATO during BALTOPS 2010 in North West Europe. This exercise provided the final validation for our counter-piracy operational concept before it was handed over to the UK's Maritime Warfare Centre for further refinement as the national sponsor for the EXTAC. As with BALTOPS, we continually look for opportunities to evaluate and validate our work and are planning to use a U.S. exercise in mid-2011 to evaluate our Logistic, Information, Force Protection, and Expertise (L.I.F.E) concept.

CJOS COE provided operational planning and logistics support to Commander, U.S. SECOND Fleet in preparation for PANAMAX 2010, a multinational exercise in defense of the PANAMA Canal, as well as JTFEX, a joint naval training exercise. Participation in events like these is critical to build our experience, capture lessons and to maintain currency with planning processes. In addition, among our work this year, we produced a comprehensive common handbook to help allied forces make best use of training opportunities with the U.S. Navy. This work is now being expanded into a guide for prospective allied forces to help them mesh with the U.S. and other navies into a fully integrated maritime force.

These are just a few highlights of a busy and productive year. We are immensely fortunate to have such a broad range of skill sets among our CJOS COE team, which includes a very strong U.S. Navy Reserve component. Together I am absolutely confident that our work in areas such as Maritime Unmanned Systems, Maritime Situation Awareness, Sea Basing and Humanitarian Assistance/Disaster Relief will contribute to a safer and more collaborative, global maritime security environment. CJOS COE will continue to play a lead role in promoting best practice, forging closer ties among maritime-related institutions and remaining transformational in scope across the international maritime community. Our planned 2011 PoW is designed to achieve this.

Commodore Jonathan Handley, Royal Navy



The CJOS COE Team



The CJOS COE Reserve Component

CJOS COE Annual Report

2010-2011
Programme of Work



Sunset on the USS Harry S. Truman (CVN 75). US Navy photo by PHAN Craig Spiering.

2010 Programme of Work

CJOS COE Programme of Work 2010 grew in both scope and scale from previous years. In response, the CJOS COE team worked extensively on all tasks to provide a comprehensive product that presents a strategic way ahead to benefit the Alliance. All tasks were managed within the scope of NATO procedures and policy as they relate to doctrinal and procedural standards. The resultant products from CJOS COE were a multi-national effort, vetted against national interests, Alliance strategy and NATO governance. The culmination of CJOS COE's work in 2010 was a variety of studies, checklists, documents and a handbook that provide a positive impact across the spectrum of Alliance members. We are proud to feature several of this year's projects in this issue of "Cutting the Bow Wave," with some highlighted in the summary below.

Maritime Situational Awareness

In November 2009, CJOS COE was tasked by ACT to review and recommend amendments to NATO's Maritime Situation Awareness (MSA) Concept. This work was completed and submitted to ACT in March 2010, but related tasking followed the Maritime Security Conference in May 2010 held in Lisbon,

Portugal. CJOS COE began work on a White Paper which proposed a "Strategic Framework for Enhanced International Maritime Security Cooperation." Additionally, CJOS COE's MSA team is working to promote a UN Resolution to establish global standards for Maritime Security Cooperation.

CJOS COE's work in the area of MSA is based on a hierarchy of concepts: NATO Strategic Concept, Alliance Maritime Strategy and Maritime Security Operations. The topics relevant to the MSA project are broad, but the overarching goal is to provide advice and innovative solutions to the challenges inherent in implementing the MSA concept, to include input on interoperability issues, doctrinal development and integration with the wider maritime security community.

Maritime Security Conference 2010

CJOS COE hosted their third annual Maritime Security Conference, titled, "Delivering Maritime Security in Global Partnership: A Comprehensive Approach for Mutual Benefit" in Lisbon, Portugal from 4-6 May 2010. The conference was a large success, with 186 delegates representing 28 nations. Commodore Handley, Deputy Director CJOS COE, kicked off the 2010 conference with the observation "hosting con-

ferences such as this allows us to come together and share innovative ideas and best practices that will lead to a better mutual understanding of each other's capabilities and limitations, which then naturally leads to greater collaboration and cooperation...all our talk must lead to tangible action to improve global maritime security."

In a two and a half day program that captured the interest and attention of a very diverse audience of noted civilian and military experts, many thoughts and ideas were shared. Two expert panels discussed the current practices, challenges and successes of implementing a comprehensive approach. Specifically, the second panel focused on the international response to the Haiti earthquake of January 2010. Distinguished speaker, Admiral Luciano Zappata, Deputy Commander, Supreme Allied Commander Transformation (SACT), presented the "Maritime Security Operational Concept and Alliance Maritime Strategy: NATO's Response to an Emerging Need," followed by Admiral Mark Fitzgerald, Commander, Allied Joint Force Command, who presented "NATO's Strategic Concept: Fundamentals for the Future Alliance Military Strategy." Conference attendees learned more about the European Union's and African Union's efforts for maritime security from notable speakers Vice Admiral Sir Anthony Dy-

mock, Consultant to European Defence Agency, and Mr. Imed Zammit, Maritime and Inland Water Transport Unit, African Union. All conference speakers provided valuable insight, observations, and permitted candid and frank discussions among the distinguished audience.

Building on last year's theme, CJOS COE will collaborate with the Centre of Excellence for Operations in Confined and Shallow Waters (COE CSW) to host the first combined Maritime Security Conference in Kiel, Germany, from 2-5 May 2011 titled "Delivering Maritime Security and Safety in Global Partnership: Creating a Strategic Framework for Maritime Security Cooperation." The Director, Deputy Director, and staffs of CJOS COE and COE CSW hope to welcome you to Kiel for this impressive and informative event! Details of the 2011 conference can be found on the back inside cover of this publication, and are also available at the website: www.cjoscoemaritimeconference.org

UN Maritime Headquarters Mission Analysis

United Nations Directorate of Peace Keeping Operations (DPKO) requested support from CJOS COE to assist with development of an organized maritime command and control (C2) structure for the United Nations Interim Force in Lebanon (UNIFIL). The approved C2 structure would be in place for future maritime peacekeeping operations. CJOS COE is also assisting with DPKO's

plans to establish a robust maritime command and control capability as part of UNIFIL in South Lebanon.

The primary purpose of this work is to deliver the best possible international maritime C2 structure and practice to DPKO. Additionally, it will contribute to SACT's vision of enhancing cooperation between ACT and the United Nations (UN). It will reveal CJOS COE's ability to provide sound proposals in short time from a source outside of NATO's C2 structure. The UNIFIL project is well suited to the talents and capabilities of CJOS COE. Several CJOS COE officers are skilled in NATO and European Union C2 matters and have actual experience operating with the UNIFIL Maritime Task Force (MTF) during former assignments. Using their unique experience, CJOS COE is working on several different recommendations to support the UN request for advice. These recommendations will be evaluated by UN officials and customized to fit requirements and existing command structures.

Maritime Unmanned Systems

CJOS COE work relating to Maritime Unmanned Systems (MUS) originated in August 2008 with official tasking from ACT. This project has been ongoing, and CJOS COE will continue to serve as the primary NATO point of contact for moving the MUS roadmap forward in a joint context. The MUS work in progress is to constantly update and maintain the capability roadmap by

collecting lessons learned and researching future developments as MUS technology improves and expands.

The MUS roadmap developed by CJOS COE includes several key points. Its aim is to define capability requirements for Surface, Subsurface and Underwater Unmanned Vehicles. CJOS COE will leverage existing work that has already been completed by several partners, and will consider current projects in work by other MUS stakeholders. With this roadmap in place, CJOS COE will develop a Concept of Operations that addresses how Unmanned Surface, Air, and Submerged Systems could work together in joint/coalition environments.

Information Operations

In January 2010, several CJOS COE members participated in the initial international response to the disastrous earthquake in Haiti. Their experience and observations led to the conclusion that other services, in particular, the Army and Air Force, may not be aware of the Information Operations (IO) capabilities maritime assets provide. In response to this problem, CJOS COE published the field guide "Information Operations from the Sea" to assist IO planners and operators at the tactical and operational level who lack experience using maritime assets.

The study concluded that there are several distinct advantages in the use of maritime assets vice ground or air assets in IO, particularly in a littoral region. These advantages include: 1) freedom of maneuver and action, 2) sustainability, 3) footprint, and 4) capacity. "Information Operations from the Sea" seeks to inform the reader of what IO capabilities one can expect the maritime domain to provide. It contains a checklist for the maritime components on-scene and provides much-needed answers to ground forces with respect to maritime IO capability in any given environment or terrain. In publishing this guide, CJOS COE aims to assist planners in better utilization of IO assets, particularly maritime assets, in all future operations.



The CJOS COE Interoperability Team speaks to the CO of the HNoMS Nansen.

NATO Joint Operational Sea Basing Concept

Current CJOS COE work in the area of Joint Sea Basing began with ACT developing Sea Basing Concepts in 2007 and 2009; the first draft titled “Concept for NATO Joint Sea Basing” was followed by the “Bi-SC Concept on NATO Joint Sea-Based Logistics Support.” CJOS COE efforts continue to center around the development of a Joint Sea Basing Concept for NATO by providing advice and innovative solutions to the operational and logistic support challenges inherent in implementing it. This includes input on NATO interoperability issues, doctrinal development and integration with U.S. Joint Expeditionary Operations.

Allied Interoperability Handbook/ OPTASK Review

Recognizing a need to improve interoperability between the U.S. Navy and its coalition partners, CJOS COE is aggressively pursuing methods to improve the process of integrating coalition warships into U.S. Carrier Strike Group operations. To this end, CJOS COE collects observations and best practices and formulates lessons to share among coalition navies. Through coordination with U.S. SECOND Fleet’s subordinate training command, Commander, Strike Forces Training Atlantic (CSFTL), CJOS COE will deliver a “common handbook” and checklist for coalition partners

training and operating with U.S. Forces. Additionally, a comprehensive review of all U.S. maritime Operational Tasking (OPTASK) is in progress. The end goal of this endeavor is to provide feedback necessary to U.S. policy makers, driving U.S. operations towards greater commonality with NATO equivalents.

Humanitarian Assistance & Disaster Relief Operations

CJOS COE has created a guide for Humanitarian Assistance Disaster Relief (HADR) operations from the sea. The genesis for this project stems from CDR Yann LeRoux’s participation in the initial response of military units to Haiti’s disastrous earthquake in January 2010, embarked aboard the USS BATAAN and on the ground in Haiti in the immediate days after the earthquake struck. From his experience, he developed observations to enhance the understanding of key leaders on how to plan and conduct HADR operations from the sea. His observations are thoughtfully collected in a new conceptual document named “The Navy Supports L.I.F.E.”: Logistics, Information, Force Protection, and Expertise.

European Carrier Battle Group Utility

As part of its plan of work for 2011, CJOS COE has been tasked to study the utility of a European developed aircraft carrier to support maritime security re-

quirements for both Europe and NATO. This study concentrates on both the strategic mobility and mission versatility that are inherent to the aircraft carrier and its role in European security requirements that stretch across the globe.

It is recognized that the end of the Cold War and the increased globalization of the world’s economy have created new challenges for Europe and NATO. Increasingly, events beyond the European continent are having a direct impact on the economy and security of NATO’s European alliance members. Today, terrorism, weapons of mass destruction (WMD) proliferation, political instability in Southern Asia and the Middle-East, energy security requirements, piracy, and natural and man-made disasters demand the attention of European nations. In order to influence and stabilize events in distant regions and to protect vital interests, Europe requires a credible military power projection capability which can conduct sustained operations abroad, unilaterally or in equal partnerships with its strongest allies.

Requirements for credible power projection include strategic mobility and access across the globe without the inherent security and diplomatic burdens that are associated with land based forces. Additionally, any power projection capability must have tactical versatility given the breadth of security requirements that stretch from conventional war to humanitarian assistance. Few weapon systems fit all these requirements.

Once this study is complete, CJOS COE will present its findings to European national leadership with regards to the future of aircraft carrier capability.

Exercise Purple Solace

In support of Exercise “PURPLE SOLACE,” CJOS COE staff provides faculty support to the U.S. Joint Forces Staff College (JFSC). Support is provided during Phase II of the exercise, enabling students to receive their Joint Service Officer qualification. The PURPLE SOLACE exercise is conducted every three months, and is attended by three non-U.S. officers from CJOS COE. Their



The CJOS COE Interoperability Team on board the HNoMS Nansen.

role is to reinforce the steps necessary to derive a mission statement, determine Commander's intent, and develop a concept of operations for a crisis in a developing nation. CJOS COE members act as Military Liaison Officers for their respective countries, taking part in the coalition to end the crisis. Inclusion of CJOS COE officers in the PURPLE SOLACE exercise promotes combined/joint interoperability, builds coalition spirit, and ensures all learning objectives are met. CJOS COE continues to work closely with JFSC staff between exercises to ensure lessons learned are captured, and the exercise is adjusted as needed.

Exercise & Operational Participation

Over the past year, CJOS COE participated in a variety of key naval exercises and operations, enabling a joint perspective and adding value to the overall exercise and operational mission. Several of these exercises and operations are highlighted below:

Operation Unified Response, Haiti: January-March 2010

Two CJOS COE team members took part in the initial response to the disastrous earthquake in Haiti in January 2010. Their unique skill sets and language ability enabled significant contributions to humanitarian relief efforts, and expedited set-up of aide command and control. Experience gained from their time in Haiti led to two CJOS COE studies on improving Humanitarian Assistance/Disaster Relief Information Operations, and the conduct of these types of mission from the sea.

Baltic Operations (BALTOPS): June 2010

After completion of the initial draft of EXTAC 789, CJOS COE recognized that it was essential to find an opportunity to test and evaluate the concepts contained within the document. CJOS COE found this opportunity during Baltic Operations (BALTOPS) 2010, a U.S. led annual exercise aimed at improving interoperability and cooperation among

regional allies, and collectively improving each nation's ability to counter threats to maritime security. BALTOPS 2010 included 12 nations and marked the 38th anniversary of the exercise. BALTOPS 2010 included counter-piracy training as part of the exercise objectives, making it the perfect opportunity to test and evaluate the methodologies of EXTAC 789.

A CJOS COE representative was graciously hosted by Commander Danish Task Group (COMDATG) aboard the flagship HMDS Esbern Snare during the exercise. The BALTOPS counter-piracy serial events proved valuable as lessons learned, which were used to refine information on tactical planning, pre-planned responses, and the integration and coordination of warships, RHIB boats and helicopters in pursuit of fleeing pirate boats. All of the experiences gained during BALTOPS 2010 validated many existing concepts or were immediately incorporated as changes to the initial EXTAC 789 draft, greatly improving the quality of the document.

PANAMAX: August 2010

CJOS COE participated in PANAMAX, an annual 12-day regional exercise focused on training participants as a joint, multinational force to protect the Panama Canal. The exercise,

co-sponsored by the Government of Panama and U.S. Southern Command, took place August 18-26 in the vicinity of the Panama Canal, Colombia; Norfolk, Virginia and Miami, Florida. The exercise included more than 2,000 civilian and military personnel participating from 18 countries. Representatives from Argentina, Belize, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, United States and Uruguay had the opportunity to share their knowledge of ground, naval and air operations and Special Forces.

PANAMAX 2010 provided U.S. SECOND Fleet (C2F) staff the ability to maintain proficiency as a Joint Task Force-capable headquarters. During the exercise, C2F assumed the role of a joint task force leading a multinational force while operating under a United Nations resolution, with CJOS COE personnel fully integrated. Forty-two representatives from 13 nations worked at the C2F Maritime Headquarters throughout the exercise. In addition to testing the team's ability to respond to threats to the Panama Canal, PANAMAX also tested their ability to plan and execute a large-scale, simulated humanitarian assistance and disaster relief operation in the region. ■

2011 PROGRAMME OF WORK

CJOS COE Programme of Work 2011 is an ambitious task list, focused around the following priorities:

- **Maritime Situational Awareness Concept**
- **Maritime Security Cooperation Framework**
- **Alliance Maritime Strategy Concept**
- **NATO Joint Operations from the Sea Concept**
- **Maritime Unmanned Systems Roadmap**
- **Interoperability Handbook Refinement**
- **Humanitarian Assistance/Disaster Relief L.I.F.E Concept**

Reserve Force Integration in the Centre of Excellence

CAPT Donald Pagel, USA-N



CJOS COE reserve sailors board a Royal Navy Merlin during joint exercises. US Navy photo.

Reserve Force Proves to be a Cost-Effective Enabler to Mission Success

In this fiscally challenging environment, the integration of the Alliance's Reserve Force is vital to ensure that our limited resources are maximized for optimal readiness and performance. Austere defense budgets and tight manpower markets demand that nations must find innovative ways of increasing military capability and efficiency. Leveraging the reserve component at the Alliance's many Centres of Excellence can contribute directly to mission success while also providing the ability to preserve the investment made by the host nation's regular military through a continuum of service. Today more than ever, there is a growing need for the flexibility, diversity, and the cost-effectiveness provided by the integration of the Reserve Force. "The Reserve Forces are no longer considered to be forces of last resort; rather, they are now recognized as indispensable to the Alliance's defense from the earliest days of the conflict." The Combined Joint Operations from the Sea Centre of Excellence's (CJOS COE) integration of its host nation's Navy Reserve is an example of such a practice that has yielded tangible cost-effective results. By leveraging the Reserve Force

at CJOS COE, the organization not only gains a force-multiplier capability, but also builds bridges to civilian networks of non-military actors crucial in supporting the framework of a comprehensive approach to security solutions.

Leveraging the Diversity and Civilian Perspective of Navy Reserve CJOS COE

The collective experience of the reserve force is comprised of military warriors with front-line experience who are also highly accomplished business and industrial leaders, public servants, and academics. This breadth of knowledge contributes greatly to the creative diver-

"I encourage Reserve Forces to participate, engage, and contribute to the many Centres of Excellence around the Alliance, and to connect on their civilian side with the work the Centres of Excellence are doing."

-Admiral James Stavridis, the Supreme Allied Commander in Europe, video message to COIR August 2010

sity in the Programme of Work (PoW) in both scope and depth and increases the intellectual potency of the organization. In particular, reservists have contributed significantly to the Maritime Situational Awareness (MSA) strategic framework project, the Maritime Unmanned Systems (MUS) Roadmap, and the Humanitarian Assistance and Disaster Relief PoW. CJOS COE is proud of the fully integrated business model that

aligns the reserve force's civilian skills to mission requirements in a cost-effective manner and shares together the responsibility for success.

The mission of Navy Reserve CJOS COE is to build and to maintain maritime partners through an optimized total-force business plan that provides CJOS COE with steady-state intellectual depth and operational surge capability. The Reserve Force is built into CJOS COE at the "deck-plate" level. Reservists are assigned directly to the regular staff PoW team-lead for tasking with a collaborative "flexible work" capability that pulls them away from a typical weekend battle rhythm and into a year-round combined solution with the regular staff.

The annual two weeks of active duty training funded by the reserve force is efficiently leveraged during the CJOS COE Maritime Security Conference, the past three of which have been conducted in Europe. This provides an invaluable level of continuity by returning the critical skill sets required to execute and to administer all elements of the conference year after year, and yields a significant cost-savings dividend for the CJOS COE in both travel funds and manpower days that are re-invested in other PoW efforts throughout the year.

Tangible Results from Reserve Integration

- CJOS COE leveraged the reserves to jump-start the experimentation stage of the Allied Interoperability PoW by tasking its reserve capability to lead and examine interoperability challenges encountered by the UK's Auriga Task Group as they participated in U.S. exercises. The assessment team flew aboard HMS Ark Royal to conduct on-site interviews and surveys. The team, lead by a reserve officer, consisted of three reservists and one regular officer.
- CJOS COE builds bridges to civilian and academic networks by leveraging the civilian experience of the reserve officers assigned to the MSA strategic framework paper. Given that this work demands a "comprehensive approach," the civilian experience that the reserve officers bring to the table proves to be invaluable.
- A CJOS COE Reserve officer represents the U.S. Office of the Secretary of Defense for Reserve Affairs in the Reserve Officer Foreign Exchange Program with the Federal Republic of Germany deploying for two weeks with the Centre of Excellence for Operations in Confined and Shallow Waters (COE CSW) in Kiel, Germany. This occurred in advance of the planned 2011 Maritime Security Conference joint venture by both CJOS COE and COE CSW.
- CJOS COE tapped into the surge capability of the Reserve Force during a critical manpower challenge during the transition of the CJOS COE Deputy Director Operations position from the Netherlands to the United States by recalling a reserve officer with administrative experience to active service. A reserve team of one officer and four enlisted personnel are trained and integrated with the CJOS COE administrative support section to provide steady-state part time support as well as potential surge capability.
- CJOS COE adds depth to its staff during known absences by preparing reserve augmentation to the CJOS

COE Deputy Director's Military Aide position during the regular Flag Aide's absences.

Navy Reserve CJOS COE has earned a reputation as a total-force provider of choice, one that enables CJOS COE processes and achieves tangible results. The Command is valued for its readiness, innovation, and agility to respond. Three years into its integration plan, Navy Reserve CJOS COE is now embraced as a capable and "operational-level-of-war" prepared member in the CJOS COE wardroom.

For the Reservist, CJOS COE is one of the few opportunities to work side-by-side with regular officers of NATO and Partner Nations, and is arguably one of the most rewarding experiences in their careers. Professional growth and development is achieved during four assigned quarterly training weekends that not only satisfy the host nation's Reserve Force mobilization readiness requirements, but also enable the execution of a combined professional development plan with the reserve program of NATO Allied Command Transforma-

"...a difference in what is called staying power, or reserve force, which is even greater than appears on the surface; for a great shipping afloat...employs people who follow other callings closely connected with the water and with craft of all kinds."

-Alfred T. Mahan, *The Influence of Sea Power Upon History, 1660-1793*
General conditions affecting Sea Power: Number of Population

tion (ACT). This overall battle rhythm provides the Reservist with real and meaningful work while maintaining a flexible family-civilian-life balance.

Reserve Force Builds Flexibility into CJOS COE

Flexibility is acuity of thought, characterized by intellectual and analytical rigor, enabling intuitive understanding of complex and changing circumstances.² The principle of flexibility conditions the Commander to accept that no plan survives first contact with the "enemy" and that conflict is inherently complex and unpredictable. The Reserve Force allows CJOS COE to build flexibility into its business model by allocating excess manpower capacity during anticipated high-risk areas in order to mitigate changes in the business plan. This option proves to be a cost-effective solution that enables the command to ex-

pand the regular force when necessary in both depth and intellectual capacity. Furthermore, the Reserves constitute a force that is naturally collaborative and can stay engaged in concept development while also offering a diverse opinion to enable critical discussions on programme of work topics. Reserve force integration can arm the Commander with the ability to successfully navigate change, reevaluate, and adapt through a cost-effective part-time surge capability.

In conclusion, the integration of the host nation's Reserve Forces into the Alliance's many Centres of Excellence adds considerable advantage for COE Directors as they delve into the fiscal challenges of the near future. Although each nation has different structures, requirements, and obligations for their Reserve Forces, the potential contribution in building bridges to the civilian sector is powerful. Regardless of the design of the host nation's Reserve Force, the breadth of knowledge and potential for diversity remains valid to the intellectual foundation of the COE. The Reserve Force can deliver a ready and

accessible "cost-effective" solution, provide valued capabilities, and enable a continuum of service. Reserve integration provides CJOS COE with manpower augmentation for known absences

of the regular force and provides a scalable option to sustain high-tempo, high-demand operations. As the fiscal landscape shifts under great pressures from national defense budgets, innovative options to gain efficiencies in business practices must be explored at the Centre of Excellence. ■

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(Endnotes)

1. James Stravridis, Greeting from SACEUR to CIOR (CIOR Newsletter, September 2010), 6.
2. British Ministry of Defense 2008, 2-5.

Maritime Unmanned Systems (MUS)

LtCol Antonio Evangelio, ITA-F



Firescout maintenance aboard the USS McNerney (FFG 8).
US Navy photo by MC2 Daniel Gay.

The Alliance's Long Term Capabilities Requirements (LTCRs) states the importance of ensuring that forces assigned to NATO are properly equipped and interoperable to the degree they may successfully undertake the full range of military missions in both current and future operating environments. Missions such as Littoral Operations, Harbor Protection, and Intelligence Surveillance and Reconnaissance (ISR) are of critical importance to NATO and other nations, alliances and governmental organizations. Current trends show that existing fundamental strategies and missions will remain unchanged in the near future, and the application of MUS technology in these mission areas must continue to be studied.

CJOS COE recently conducted a study on the latest Maritime Unmanned Systems (MUS) to highlight potential uses by NATO nations. This MUS study included an analysis of current and future NATO maritime missions, and reviewed current unmanned system technology for potential applications in the maritime environment. It also analyzed areas where the Alliance could

collectively invest to improve operational effectiveness, reduce operating costs, and limit risk to human life. The study was completed in December 2009, and with Supreme Allied Command Transformation's endorsement, it was sent to the International Military Staff (IMS) for comments, and was ultimately forwarded to the Military Committee (MC) for notation on 2 March 2010. Finally, the study was presented to NATO nations for their review and comments.

Additionally, the NATO Joint Capability Group Unmanned Air Vehicle (JCGUAV) meeting in March 2010 clearly demonstrated a growing interest

from nations on topics presented in CJOS COE's MUS study, as it represents a solid baseline for further NATO MUS development. Consequently, CJOS COE is currently conducting further research in the development of the MUS C2 arrangements in support of NATO and interested nations. This document is intended to be a "roadmap," or a proposed way ahead for NATO with respect to MUS technology. CJOS COE continually assesses proposals from nations for new concepts and approaches that would help discover solutions for observed gaps. The MUS project will provide NATO with a definition of future joint requirements for Surface Unmanned Vehicle (SUV), Underwater Unmanned Vehicle (UUV) and Airborne Surveillance systems in support of NATO maritime operations.

Conclusions

The MUS study included several key conclusions worthy of mention.

- The greatest cost-effectiveness would be achieved with an international



Joint Unmanned Air Vehicle (JUAV) in Desert Rescue XI at NAS Fallon.
US Air Force photo by SSG Reynaldo Ramon.

agreement to procure and outfit units with common platforms and Command and Control (C2) systems. With NATO-standardized C2 procedures and common platforms for unmanned systems, interoperability and cooperation among allied units would improve significantly.

- NATO should develop processes to codify MUS doctrine, and increase its overall investment in Research and Development (R&D) in the area of MUS. This would lead to the establishment of an integrated, multi-disciplinary project team that would establish a Working Group aimed at defining critical milestones for NATO to achieve the desired unmanned systems capabilities.

The CJOS COE MUS roadmap document currently in progress will leverage existing NATO partners' endeavors, and will amalgamate current projects undertaken by other MUS stakeholders. Most NATO navies

are now fully committed to MUS development, but are still in the process of breaking new ground in the area of command and control. It should also be noted that within NATO, no single organization currently leads this standardization endeavor. With its maritime expertise, CJOS COE is well-suited to provide overarching leadership and collaboration with other agencies to provide a relevant concept of operations. While studies in Unmanned Air Systems (UAS) concepts and tactics are more advanced for land based operations, CJOS COE and NATO nations can elaborate on the lessons learned on land, and apply them to sea-based operations.

Recently, Admiral Gary Roughead, Chief of Naval Operations, U.S. Navy, underlined the necessity to speed-up the development and procurement of stealthy unmanned aircraft to serve onboard U.S. Carriers by 2018. He emphasized the sense of urgency by the Navy's top leadership to quickly move forward on UAS technology, as

the naval service has lagged behind the U.S. Air Force and Army. Consequently, NATO's efforts should progress in the same direction, in order to mitigate the existing gap in the Alliance's maritime domain. CJOS COE was purposefully designed to assist NATO and its member nations for this type of task and can achieve the best results in defining MUS capabilities, conceptualizing mission profiles, enhancing capabilities and ultimately saving resources and human life. ■

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Scan Eagle unmanned aerial vehicle (UAV) launches from the Navy Surface Warfare Center (NSWC) Dahlgren test range. U.S. Navy photo by John F. Williams.

Interoperability Handbook

CDR Themistoklis Papadimitriou,
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USS Enterprise (CVN 65), HNoMS Nanses (F 310), and HMS Daring (D 32) during a Composite Training Unit Exercise. U.S. Navy photo by MCSN Alex R. Forster.

Allied Interoperability Handbook: A Step Forward in Resolving Interoperability Issues

At the 17th International Sea Power Symposium in September 2005, then U.S. Chief of Naval Operations, Admiral Michael Mullin announced: *“No matter how large or small your Navy or Coast Guard may be, we all face similar internal constraints like shrinking budgets, aging equipment, and populations that may not be attracted to military service. Our level of cooperation and coordination must intensify in order to adapt to our shared challenges and constraints. We have no choice in this matter, because I am convinced that nobody - no nation today - can go it alone, especially in the maritime domain.”* Clearly navies must work together to efficiently fulfill joint missions. This can only be achieved through effective coordination and improved interoperability measures.

The coalition arena is a challenging environment in which to operate. The sometimes ad-hoc manner in which nations come together makes standardizing doctrine, policy, or operating procedures difficult. As a result, the most burdensome challenge facing coalitions is interoperability. This can encompass a plethora of incompatibility issues doctrine, policy, tactics, language, culture, automated weapons, information sys-

tems, and so on. Complicating these issues are political sensitivity matters such as those that preclude one nation from working or sharing information directly with another nation, or sensitive material handling and releasability concerns.

Lack of interoperability permeates all levels of Command and Control (C2). It can slow the speed of C2 and detract from building unity of effort and purpose. Working outside a common operating environment can lead to misunderstanding of missions, missed opportunity for decisive military action, or in extremis “blue on blue” engagement.

At the DRESS (Director’s Requested Experts in Support of the Steering Committee) meeting held in Lisbon on 6 May 2010, addressing concerns with “Naval Interoperability” became one of the core tasks of CJOS COE’s Program of Work. CJOS COE was tasked by the Steering Committee (SC) to develop an Allied Interoperability Handbook for use by Allied and Coalition Navies to overcome the most common problems encountered when planning and executing training events and operations. Based on CJOS COE’s unique co-location within U.S. SECOND Fleet Headquarters, the initial focus of effort was towards naval ships conducting training exercises on the Eastern seaboard of the United States.

Subsequently, a team from CJOS

COE conducted surveys and interviews with personnel from HMS Ark Royal (RO7), United Kingdom Carrier Strike Group Staff, USS Kearsarge (LHD 3), embarked Commander, Amphibious Squadron 4 Staff, and USS Barry (DDG 52). The surveys and interviews revealed several interoperability challenges and concerns; most were minor in nature and mitigated expeditiously. The information gathered provided an indication that interoperability, while generally good, requires focus in some specific areas.

The areas of greatest success are summarized below:

- Use of advance parties, surveys, and Liaison Naval Officers ensured smooth preparations.
- Participation in the delegation of warfare commander roles, unit missions, and staff responsibilities to Coalition units and staffs is critical.
- Pre-defined robust communication of training objectives at Planning Conferences.
- Use of “chat” proved to be an efficient and effective means of communication.
- CENTRIXS (Combined ENTERprise Regional Information eXchange System) was generally regarded as an excellent capability for communicating.
- Extensive employment of Foreign

Command Level	Staff Level	Data Networks
<p>In which areas do you experience the main interoperability issues arising? Examples: Decision-Making, Planning, Force Execution. How do these issues affect the operations and C2 of the combined TG?</p> <p>How did lack of interoperability hinder meaningful contributions by coalition partners? Do you have ideas to propose for mitigating interoperability issues?</p> <p>What National rules (Safety, ROE, policy) are a major hindrance to interoperability?</p> <p>What significant interoperability issues arise from inability to access information? Where have we fallen short in communicating and exchanging information?</p>	<p>Which documentation do you use as a reference?</p> <p>Do you have easy access to the reference documentation? If not what are the reasons?</p> <p>Are your national procedures different? Are there any contradictions with your national procedures? What are the reasons for that contradiction/difference?(eg. Operational, doctrinal, legal etc.)</p> <p>Do you have access to foreign/NATO Standing OPTASKs? Is there significant divergence in operational procedures/standards? If yes describe the areas and the reasons.</p> <p>What are the main issues/problems with documentation? (ROE, COMPLANS, etc.)</p>	<p>What interoperability challenges have you encountered with the use of CENTRIXS? Consider: adequate number of workstations, location, permanent vice fitted for this deployment, what enclaves are available(e.g. CMFC, CMFP, etc), does it satisfy your IER for interoperability with US units, preference for an alternate network (e.g. NSWAN), are US elements posting to CENTRIXS in a timely manner?</p> <p>How familiar is the Staff on the use of CENTRIXS applications?</p> <p>What interoperability challenges have you encountered with the use of CSD & Griffin? Consider: adequate number of workstations, location, permanent vice fitted for this deployment, was CSD used by US LNOs to email SIPR users, was CSD utilized by UK Staff to email US SIPR users, was Griffin utilized by UK Staff to email RNCSS to SIPR and vice versa?</p>

Sample questions from the Interoperability Handbook Survey. The survey, mission templates, lessons learned, and checklists are available at https://transnet.act.nato.int/WISE/COE/Individual/CJOS/index_html

Disclosure Officers (FDOs) on both ships and ashore greatly assisted in the dissemination of information.

Conversely, the below areas need further attention:

- Communication: Effort should be invested to ensure communications plans are a result of early collaboration and detailed planning. They must be disseminated well in advance of operations to ensure as many units as possible receive timely information.
- Common Terminology, References, and Procedures: NATO publications should be used as much as possible to prevent misunderstandings and provide common reference. Some references to important exercise documents and orders were kept on national networks and not posted to Coalition websites.
- Command and Control: Military cultural differences have an adverse impact on interoperability across the C2 spectrum. These differences must be explored and discussed. Detailed agreements on common C2 principles should be promulgated.

From this research, CJOS COE developed the “Allied Interoperability Handbook” comprised of the following documents:

- An “Interoperability Survey Ques-

tionnaire” which is used as a tool to reveal interoperability challenges. This questionnaire is the main tool to uncover any hidden interoperability issues and is provided to foreign ships in the C2F AOR.

- An “Interoperability Lessons Learned data base” which lists the lessons learned from the surveys and interviews conducted on board the Coalition/Allied ships.
- An “Interoperability Survey Results paper” that incorporates those areas noted to be successful or needing attention which can be used as a benchmark for future operations among Allied Navies.
- An “Interoperability Checklist” which is the distillate of all the above documents. This user friendly interoperability guide approaches interoperability issues from a functional area perspective (planning, operations, communications, etc.).

To further enhance and promote these products and establish best practices in the interoperability arena, CJOS COE made them available on CJOS COE’s websites, encouraging nations to review and forward those documents to ships designated to participate in US exercises and operations.

Many different projects have addressed the issue of interoperability in the past. In these projects, some of the primary issues of interoperability have been reduced or solved, but unfortu-

nately, other effects are still alive and the lessons learned may be forgotten on the shelves.

CJOS COE proposes a new tool against interoperability problems, the “Allied Interoperability Handbook”, a user-friendly tool; a living document that is continuously updated through real life surveys and interviews.

Following best practices in cooperation with international Navies will mitigate interoperability challenges. The “Allied Interoperability Handbook” is a step in this direction and available for use by any Navy, at any time. ■

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Maritime Support to Land Forces: Information Operations

LT Ryan Haag, USA-N



USMC CPL Williams keeps a control point updated as cargo is off loaded from the USS Wasp (LHD 1). US Navy photo by PH1 Bart Bauer.

Maritime Support to Land Forces Information Operations

In the past, the flow of information during military campaigns was relatively slow, and inefficiencies in managing information had little impact on operations. The continuing advancement of technology has changed this concept. In an age where the average person can purchase a cell phone able to take and upload a video to the internet with the push of a button, information flows too fast to allow for inefficiencies in information management, especially in the military.

The non-state adversaries of today do not choose to spar with nations on the battlefields of days gone past. Their power does not rely on bombs and guns, but rather it hinges on support from the local population, which is only possible when their message can flow freely. Words, pictures, and video have become weapons in the battle for winning public opinion.

This arena is dominated by the land and air component commanders, with maritime assets remaining underutilized in the fight. Navies of the past have chosen to focus on cryptography and signals intelligence, leaving the traditional fields of Information Oper-

high number of IO planners and operators with little to no experience in the maritime domain, which has caused them to underutilize maritime assets during operations. This trend was observed by CJOs COE personnel during the initial response efforts to the devastating Haiti Earthquake of 2010.

The problem is not the Army or Air Force's unwillingness to use a maritime asset, or the readiness of naval assets to conduct IO missions. Instead, it is a problem of planners failing to realize what maritime assets bring to the table in terms of capabilities, and instead defaulting to the land and air capabilities with which they are most familiar. Although most nations have doctrine calling for integrated, joint, and coalition IO, these

phrases become hollow buzzwords when actual plans are made and executed.

In response to this problem, CJOs COE published the field guide "Information Operations From The Sea" to assist IO planners and operators at the



Watchstanders direct a maritime exercise from the SECOND Fleet Fleet Command Center. U.S. Navy Photo.

ations (IO) that involve human interaction (such as Psychological Operations and Military Deception) to the Army and Air Force, resulting in most IO resources being allocated to ground and air units. The direct result of this is a

tactical and operational level who lack experience using maritime assets.

CONCLUSIONS:

This guide details distinct advantages to using maritime assets vice ground or air assets in Information Operations as follows:

- Freedom of maneuver and action. Maritime assets can operate with near impunity in international waters, and are not restricted by roads and terrain.
- Sustainability. Maritime assets carry provisions for an extended period of time, and with resupply at sea, can maintain station for prolonged periods.
- Footprint. By basing capabilities at sea instead of on land, IO planners and operators have the flexibility to shrink or expand the footprint ashore as required by their mission set.

- Capacity. Cargo, water, and electricity all arrive in larger quantities when carried by or generated on-board a ship, as compared to air or surface transport.

Underutilizing maritime assets needlessly ties up ground and air units that can be more effectively tasked elsewhere. For example, the Haiti earthquake of 2010 left the FM radio broadcast system almost completely in ruin. Ground units were spread throughout the country to perform surveys to determine what places had a signal, and which ones did not. But this survey could have been conducted from a ship, allowing the commander to either keep the survey personnel away from the operation (thus shrinking his ashore footprint) or tasking them with another mission set (thus using assigned forces more efficiently). As resources to aid casualties become scarce, it can ill be afforded to allow such gross in-

efficiencies to exist in the military.

“Information Operations From The Sea” seeks to inform the reader of what capabilities one can expect the maritime domain to provide. It contains a checklist for the maritime components on-scene to fill out, providing much-needed answers to ground forces with respect to maritime IO capability in any given environment or terrain. In publishing this guide, CJOS COE aims to assist planners in maximizing utilization of IO assets, particularly maritime assets, in all future operations. ■

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Combat Direction Center (CDC) of the USS Enterprise (CVN 65). US Navy photo by Photographer's Mate Rob Gaston.

Joint Operations from the Sea: Sea Based Operations

LtCol Bas van Rijswijk, NLD-M



USNS Rappahannock (T-AO 204) and the German navy Frigate Emden (F 210) complete a replenishment at sea. US Navy photo by MC2 Jason Zalasky.

Current political, environmental and economic developments in the world have resulted in NATO conducting operations outside their historic Area of Operations. There is an ever increasing trend for the Alliance to deploy military units further away from the vicinity of its member Nations. This increasing requirement for an expeditionary capability in combination with strategic lift shortfalls will result in a number of concerns for the Alliance.

Firstly, in most emerging conflicts or disasters, speed of response is a decisive factor in the resolution of conflicts and/or disasters and highlights the need for a highly responsive strategic mobility and projection capability with logistical sustainability. We need to move the right sized unit to the right location at the right time to be deployed. *“The more quickly one reacts, provides assistance, restores the status quo ante or contains the disputes and tensions, the better”*.¹ In the past, so-called Pre-positioned Forces were located near potential conflict areas, so that units could be in the right place at the right time. Today, the high degree of unpredictability in terms

of where a future conflict may unfold makes it virtually impossible to pre-position units at suitable locations on land, where there is still the need for temporary availability.

Secondly, given the current dynamics of the political and economic environment, Host Nation Support (HNS) is not guaranteed. Sovereign states are increasingly less willing to allow foreign forces and their assets to enter or operate in their territory for either the long or short term. Without HNS, the abil-

“Where nations have a ‘tradition’ of maritime and amphibious capabilities, their national planners almost unconsciously factor-in those capabilities when involved in planning situations. To this end, within those nations, a sea basing capability exists, even if not identified as a formal concept. Other nations, without such capabilities, may overlook them because they are not normally an option.

- Concept for NATO Joint Sea Basing Draft

ity to build-up forces and supplies and the ability to sustain and protect those forces will be negatively affected. The expeditious deployment, assembly and employment of forces in a country when lacking base operating support will pose a remarkable challenge.

Thirdly, with the increasing possibility that operations will be conducted in less stable areas of the world, the Alliance will need to limit the vulnerabil-

ity of ground based logistic chains and other similar essential hubs given the dynamics of asymmetric threats. In the future our opponents will more likely target vital soft targets than conduct direct action against our conventional force structure. The current attacks on fuel convoys in Pakistan are an excellent example of these emerging trends.

14 of the world’s 17 largest cities are located along coasts. Eleven of these cities, including Bangkok, Jakarta, and Shanghai, are in Asia with half the world’s

populations living within 100 km of the sea. With the world’s largest cities along the coast, protection and support of these

populations centers is vital. The use of the sea with its virtually unlimited space for maneuver, and being able to operate without the consent of third parties, will allow for the build-up of required logistic and operational support near the theatre of operation in order to enable the deployment and sustainment of the force. This capability to conduct Joint Operations from the Sea or Joint Sea Based Operations will increase the

Alliance Strategic responsiveness and will provide the NATO Joint Force commander and global leaders additional force projection and sustainment and additional political options.

Within the Alliance, the US is the only nation that has been able to considerably improve its expeditionary capability by

using Maritime Pre-positioning Forces (MPFs). Units can embark in

advance and be kept on standby near conflict areas. But even for the US, continuation of this MPF concept has proven to be challenging in the light of the different ongoing conflicts in Iraq and Afghanistan.

It is inevitable that commercial Sea Lift (SL) capability will be used by NATO to provide for strategic mobility. Commercial ships can move the required troops and their assets, as well as the initial and follow-on operational support to required areas of operations by sea. However, Commercial Sea Lift lacks projection capability and additionally, might not be available to support short notice requirements. Having realized this fact as a potential future shortfall, NATO nations have procured sea based platforms to meet identified conventional maritime or amphibious use to support National needs in this operational capability area. Also different NATO nations have developed National concepts and even ConOps on Joint Sea Basing.²

The developments as described earlier support the need for a NATO Joint Sea Basing Concept. Joint Sea Basing will provide the Alliance another option for the deployment, employment, sustainment, and re-deployment of a mission tailored joint force package, utilizing a combination of seaborne platforms, strategic sealift and tactical airlift/sealift to rapidly project, protect and sustain multinational forces wherever needed.

In August 2009, ACT and SHAPE developed and agreed on a Bi-Strategic Command Concept on NATO Joint Sea Based Logistic Support (NJSLS). This

concept was recently approved (2010) at the Senior NATO Logisticians Conference. Furthermore the Multiple Futures Project Final Report³ recommended that the Alliance should explore a sea basing capability to improve operational responsiveness, reduce exposure to land based and missile

“Sea-based operations use revolutionary information superiority and dispersed, networked force capabilities to deliver unprecedented offensive power, defensive assurance, and operational independence to Joint Force Commanders.”

- Sea Power 21, Adm Vern Clark, USN, Proceedings Oct 2002

threats, enhance medical evacuation capabilities, and reduce host nation support requirements.

The Combined Joint Operations from the Sea Center of Excellence (CJOS COE) has identified the development of a NATO Joint Sea Basing concept as one of its seven core tasks. This initiative was fully supported by the DRESS meeting in May 2010 and a month later, in June 2010, added to the Program of Work for 2011 and approved by the Steering Committee.

An earlier attempt to develop a NATO Joint Sea Basing Concept in 2007 did not result in Bi-SC approval. CJOS COE will analyze, and most probably, revive this earlier draft-concept, while taking into account similar concepts such as the United States existing Sea Basing CONPLANS and doctrine and describe the potentials of Joint Operations from the Sea.

Sea basing can offer the NATO force commander a flexible range of options in fully supporting the entire spectrum of NATO interests including but not limited to: Humanitarian Aid and Disaster Relief operations (HADR), Non-combatant Evacuation Operations (NEO), Enforcement of Sanctions and Embargoes (ESE) as well as Initial Entry Operations (IEO). A mission-tailored Joint Force Sea Basing construct could be the first to arrive at the scene of a crisis. It could serve as an enabling force by stabilizing a situation and preparing for follow-on operations. Sea Basing can offer a visible deterrent presence in full view of potential aggressors or can operate from over-the-horizon to minimize political provocation or gain

operational advantage. Sea Basing will exploit the largest maneuver area on the face of the earth: the sea.

The concept will provide strategic level guidance to the operational NATO commands for the planning and conduct of Joint Multi-National operations utilizing Sea Basing to NATO and

its nations for capability development. Sea Basing, as a potential Alliance capability, will be

a transformational concept for projecting, employing and sustaining military capabilities and multi-national joint forces utilizing seaborne platforms. Command and control (C2), maintenance, medical, and logistic capabilities can remain afloat to focus upon supporting operations ashore. Utilizing a joint perspective, Sea Basing endeavors to transcend traditional service boundaries providing NATO with an expeditionary advantage for the employment of forces in response to a diverse range of missions around the globe. It will provide NATO with another additional maneuver options in response to the specific operational demands. ■

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United Nations Maritime Headquarters Establishment

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The UNIFIL Maritime Task Force shore element is based in Naqoura.

On March 19, 1978, five days after Israel's invasion of Lebanon, United Nations Security Council Resolution 425 was adopted. This resolution called for Israel to immediately withdraw its forces while establishing the United Nations Interim Force in Lebanon (UNIFIL); the latter was to oversee Israeli withdrawal from Lebanon, restore international peace and security in the region, and assist the Lebanese Government in restoring its effective authority in the area. UN Security Resolution 425 has been adjusted twice, due to subsequent clashes in 1982 and 2000.

After the month long Second Lebanon War in July of 2006, the Security Council enhanced UNIFIL and decided that in addition to the original mandate, it would, among other actions, monitor the cessation of hostilities and accompany and support the Lebanese armed forces as they deployed throughout southern Lebanon. It further mandated that UNIFIL would help ensure humanitarian access to civilian populations and the voluntary and safe return of displaced persons.

Following these mandates, the UN established a Maritime Task Force off the coast of Lebanon in October 2006

as part of UNIFIL to assist the Lebanese Armed Forces with surveillance and maritime interdiction operations in order to prevent illegal entry of arms and arms related material.

In March of 2010, the United Nations Directorate of Peace Keeping Operations (DPKO) requested support from CJOS COE to assist with development of an organized maritime command and control (C2) structure. This C2 structure would be in place for current and future maritime peacekeeping operations. CJOS COE is also assisting with DPKO's plans to establish a robust maritime command and control capability as part of UNIFIL in southern Lebanon.

The Command and Control elements of UNIFIL Maritime Task Force (MTF) moved ashore in July 2010 to Naqoura in South Lebanon, and collocated with UNIFIL HQ. The Maritime Task Force Commander ashore will exercise command and control of the MTF from ashore via communications and data information systems, and will also be available to the Head of Mission as the principal adviser on maritime matters. The MTF Commander will also be responsible for coordination and liaison with national authorities ashore.

The UNIFIL project is well suited to the talents and capabilities of CJOS COE. Several CJOS COE officers are skilled in NATO and European Union (EU) C2 matters and have actual experience operating with UNIFIL MTF during former assignments. Using their unique experience, CJOS COE is working on several different recommendations to support the UN request for advice. These recommendations will be evaluated by UN officials and customized to fit requirements and existing command structures. ■

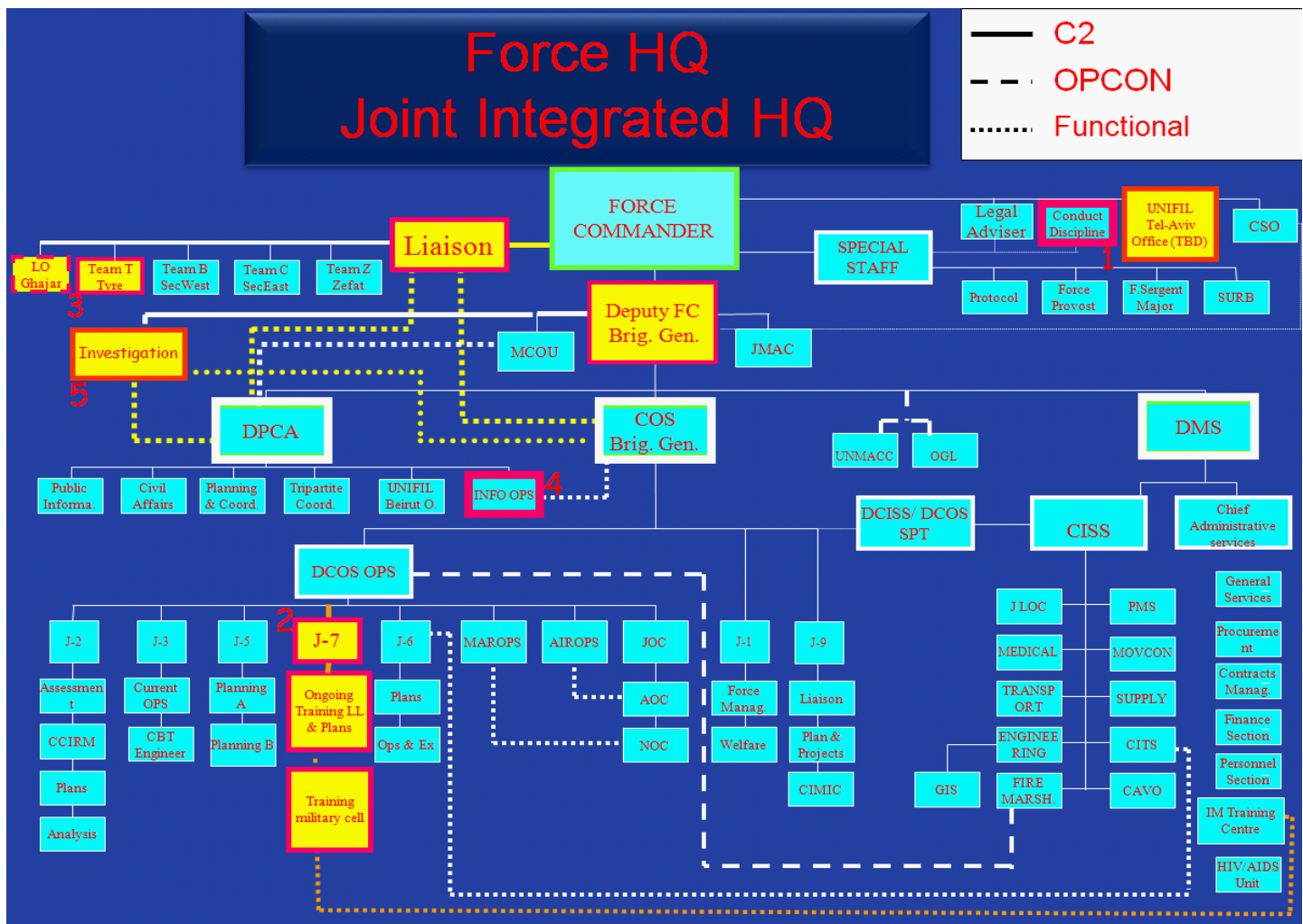
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US Navy Landing Craft Air Cushion (LCAC) and the cruise ship *Orient Queen* assist civilians departing Lebanon in July 2006. US Navy photo by MC1 Rober Fluegel.



Strategic Obligation or Political Choice?

Maritime Security and the United Kingdom National Security Strategy

Dr. Lee Willett



Iraq's Al Basrah oil terminal. US Navy photo by PH1 Richard Brunson.

The United Kingdom recently has completed a Strategic Defence and Security Review (SDSR), its first defence review in 12 years. With increased debate about the relationship between defence and wider security policy, there has been growing desire to adopt a strategic cross-government approach to delivering national security. As a result, in 2008 the then Labour Government published the UK's

first National Security Strategy (NSS), committing to refresh it annually.

It is inevitable that an annual document will be a product of its time, rather than being truly strategic. The original 2008 Strategy reflected the dominant focus on international terrorism. By the time of the release of version two in 2009, Somali piracy and energy security saw maritime security

emerge as a major theme. For a nation which relies upon the use of the sea to support critical strategic national and international interests, the arrival of the term 'maritime security' in the Strategy's lexicon was welcome – all the more so given that the 2008 version had made no reference to it at all.¹

By 2010, whether the new Coalition Government would publish its own NSS and commit to the annual refresh was uncertain. In the end, its hand was forced by the requirement for a defence review to address the challenges of Afghanistan, an overheated defence budget, wider national and international economic pressures and growing clamour to re-examine defence thinking.

Thus, the third NSS would provide a strategic framework within which to set the SDSR – something the NSS readily acknowledges. It is widely accepted too that SDSR's decisions on military priorities and equipment have seen an unprecedented shift in the force structure balance towards the land environment, with the maritime sector in particular being hit hard in response. The term 'maritime security' disappeared again from the text of the



HMS Illustrious (R 06), USS Harry S. Truman (CVN 75) and USS Dwight D. Eisenhower (CVN 69) during Joint Task Force Exercise. US Navy photo by MC2 Jay Pugh.



The Royal Air Force Nimrod MR.2 Maritime Patrol Plane force has been stood down and a replacement is not expected until 2012. Photo from Wikimedia Commons.

NSS. The Government also committed to only a five year NSS refresh. With the NSS readily admitting that each refresh is a product of its time, the UK seems to be taking short-term strategic risk on its maritime security.

Media hyperbole surrounding the SDSR argued that the maritime and naval component had no relevance to the NSS's stated security priorities: international terrorism; cyber attack; international military crises; and major accidents and natural hazards. Yet there is a fundamental difference between strategic irrelevance and convenient ignorance. The unrestricted nature of the high seas both prescribes the need for prominent deterrent and security presence (in other words, 'continuous at-sea influence') and provides an obvious mode of transportation (than more heavily controlled air and land access) for terrorists to move men and materiel (in the latter case, the risk of moving radiological or nuclear materials by sea is clear). Repeated attacks on oil terminals and tankers also highlight the

challenge, not to mention successful and foiled plots to attack naval ships and, of course, the Mumbai attack. A river-borne containerised explosive threat remains a significant UK concern in relation to the 2012 Olympics. High-end naval assets also can play a significant role in offensive counter-terrorist operations, through surveillance, stand-off strike and insertion of forces – particularly in circumstances where a footprint ashore is either not possible or undesirable.

In terms of intervention in international military crises, the ability of naval forces to stand off, in international waters, ready to carry out high-end or humanitarian operations again is clear. In 2006, the UK deployed an aircraft carrier to evacuate civilians from Lebanon. More recently, in response to the artillery exchanges between North and South Korea, the United States deployed the aircraft carrier USS George Washington to the Yellow Sea.

Lastly, the relief operations following

the Asian tsunami, Hurricane Katrina, the Haiti earthquake, and the Icelandic ash cloud are all examples of where maritime forces made primary contributions.

Thus, events – both past and present – continue to demonstrate that maritime security is not only fundamentally relevant to the NSS, but also remains a critical international strategic obligation. The maritime continuity must convince governments that it is not a matter of choice. ■

Dr. Lee Willett is the Head of the Maritime Studies Programme at the Royal United Services Institute

(Endnote)

1 - The only reference to 'Maritime' was a reference to the Maritime Operations and Analysis Centre in Lisbon, Portugal.

CJOS COE & the Challenge of Somali Piracy

CDR John Schaper, USA-N
LCDR Chris Lutgendorf, USA-N



The USS Vella Gulf (CG 72) assist a fishing dhow in the Gulf of Aden. US Navy photo by MC2 Jason Zalasky.

Pirate attacks in the waters off the Horn of Africa continue to bring international attention to the long-standing problem of piracy in the region. The United States, European Union, NATO, and other partner nations conduct military operations to help deter, prevent, and repress acts of piracy and armed robbery. However, despite the best efforts of several multinational forces, pirate activity continues to threaten commercial shipping in the Gulf of Aden and the Somali Basin, subsequently increasing costs for consumer goods through increased overhead in insurance and additional security measures. Three task forces, including Combined Task Force (CTF) 151, EU Operation ATALANTA, and NATO Operation OCEAN SHIELD, currently conduct counter-piracy and escort operations in the area. A fourth group, CTF 150 conducts counter-terrorism and maritime security operations in the Red Sea, Gulf of Oman, and Northern Arabian Sea. The operations of these multiple task groups present several significant challenges, including communication, information sharing, tactics de-confliction, training, rules of engagement, leadership coordination, and intra-governmental policies.

Communication, whether voice or electronic, secure or clear, presents a significant challenge. The variety of

communication paths that exist (line of sight, satellite, and chat via internet) coupled with the language barriers between different nationalities in the task groups complicate even routine operations.

Information and intelligence sharing between nations is limited due to national security concerns among partner nations. The inability to share actionable, specific information, due mostly to the method used for collection, leads to missed opportunities, decisions made on incomplete information, and some “national only” (i.e. unilateral) operations.

A myriad of manuals, tactical publications, and operational documents discuss counter-piracy tactics, techniques, and procedures. Most operational level guidance and direction are found in the Operational Tasking Supplement (OP-TASK SUPP). However, many nations fail to comply with policies, procedures, and actions required in these documents and fall back to national or internally developed tactics.

The quality of anti-piracy training among the navies in the task forces varies widely. This includes US forces, which receive some of the best training available, but due to the wide spectrum of operations conducted by the United States Navy, or any other large maritime force, these perishable skills diminish if

refresher training is not conducted on a regular basis.

Rules of Engagement are complex and different for every partner nation. Task Force leadership relies on a matrix of which countries will/will not perform certain actions and must consider this ahead of any tasking. In depth knowledge of both maritime and international law is fundamental to the success of counter-piracy operations. Failure to anticipate requirements and outcomes can lead to missed opportunities and the loss of the tactical advantage.

One of the greatest challenges facing counter-piracy operations today is the fragmented approach being employed toward the counter-piracy effort. In order to significantly reduce the number of piracy attacks, the base of operations must be neutralized. When counter-piracy operations are only addressed from the maritime aspect, the vacuum created from arresting pirates on the high seas is quickly filled by others seeking more wealth than they would earn in multiple lifetimes from one successful ransom operation. Current U.S. government policy restricts access to areas in Somalia where piracy operations are based. This is due to many factors, including a non-functioning government, tribal and civil unrest, and a strong terrorist influence. A comprehensive, holistic approach both land and sea based



The USS Winston S. Churchill (DDG 81) follows a suspected pirate vessel in the Indian Ocean. US Navy photo by ITC Kenneth Anderson.

is needed in order to effectively stem piracy operations in the Horn of Africa region.

Despite these challenges, partner nation task forces have achieved some success in reducing the number of pirate attacks. The creation of the Maritime Security Patrol Area (MSPA) in the Gulf of Aden has focused counter piracy efforts and improved the allocation of scarce resources. Integrated and mission specific training between partner nations has also improved the effectiveness of assets on station. Additionally, several ongoing initiatives at CJOS COE will contribute to a few of the challenges discussed above. Principally, the introduction of the Allied Interoperability and Commander, Second Fleet Handbook will improve communication, training, and tactical operations between coalition and partner navies. The development of Exercise Tactical Publication (EXTAC) 789 for Counter Piracy Operations will provide standardization of combating piracy tactics, techniques, and procedures for NATO

(and possibly EU) countries. Finally, the ongoing development of a strategic framework for enhanced international maritime security cooperation will lay the foundation for increased maritime information and intelligence sharing among partner nations. This subject will be a significant topic of discussion at the 2011 Maritime Security Conference in Kiel, Germany.

Many countries have called for a comprehensive approach that responds to the threat of piracy in the Gulf of Aden and the Somali Basin. While most of this effort would most likely be focused ashore on political, economic, and social issues, the maritime component will remain a significant contributor. The challenges of combined and joint operations from the sea between partner nations large and small will continue to be present. Any comprehensive solution would have to have international backing, which makes the United Nations an ideal organization to coordinate counter-piracy operations not only in the Horn of Africa, but in

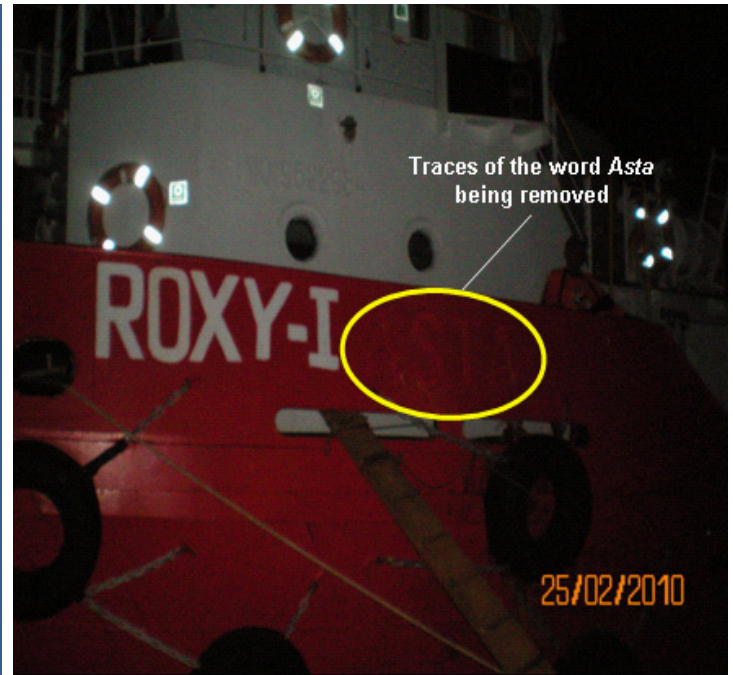
other piracy plagued areas worldwide. These issues must be patiently addressed in the body of the United Nations while partner nations address the current crisis both unilaterally and collectively as a task force. ■

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LCDR Chris Lutgendorf, United States Navy Reserve, is a Surface Warfare Officer with counter piracy experience from multiple overseas deployments, most recently in 2009 as Combat Systems Officer aboard USS James E. Williams (DDG 95). He is the Assistant Operations Officer for the CJOS COE Reserve command.

ReCAAP: Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia

LTC(NS) Toong Ka Leong,
SNG-N (Retired)



The Tug boat *Asta*, hijacked by pirates, was later recaptured by Malaysian authorities despite pirate attempts to hide the tug's identity.

In the early 1990s, there was a general surge in the number of incidents of piracy and armed robbery against ships in the Straits of Malacca and Singapore and some parts of the Asian waters. The concern then was “safety to navigation” as crews were often tied up or locked in cabins, leaving the ship underway without proper watch-keepers onboard.

The situation worsened in the latter half of the 1990s with the emergence of phantom ships which posed a new threat to crews who were abandoned on isolated islands or lifeboats or simply thrown overboard. The loss of lives and trauma experienced by seafarers was unacceptable and the call by regional governments to take actions to cooperate and combat the growing trend of maritime crime at sea were high on the agenda at ministerial level meetings and regional forums.

Need for a Regional Cooperative Body

In November 1999, the then Prime Minister of Japan, Mr. Keizo Obuchi mooted the need for a regional agreement to address concerns of the growing threats at sea. In March 2000, a regional conference on Combating Piracy and Armed Robbery against Ships was held in Tokyo where law enforcement agencies and maritime industries came together to jointly address the maritime concerns and challenges.

Birth of the ReCAAP Agreement

Following the conference, regional governments and law enforcement agencies held several meetings to draft the framework for a regional agreement. The agreement, known as the Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP) was finalised on 11 November 2004 by 16 countries (ASEAN+6) comprising the People's Republic of Bangladesh, Brunei Darussalam, the Kingdom of Cambodia, the People's Republic of China, the Republic of India, the Republic of Indonesia, Japan, the Republic of Korea, the Lao People's Democratic Republic, Malaysia, the Union of Myanmar, the Republic of the Philippines, the Republic of Singapore, the Democratic Socialist Republic of Sri Lanka, the Kingdom of Thailand, and the Socialist Republic of Viet Nam. Of the 16 countries who drafted the ReCAAP Agreement, 14 countries (less Malaysia and the Republic of Indonesia) signed and ratified the ReCAAP Agreement. To date, 17 States have become Contracting Parties to ReCAAP, including three non-Asian Countries, namely the Kingdom of Norway, Kingdom of Netherlands and Kingdom of Denmark who signed and rectified the ReCAAP Agreement on 29 August 2009, 3 July 2010 and 20 November 2010 respectively.

The ReCAAP Agreement has 3 pillars: Information Sharing, Capacity Building

and Cooperative Arrangements.

ReCAAP Mechanism

Each signatory of the ReCAAP Agreement designates a Focal Point to manage piracy and armed robbery incidents within its territorial waters and jurisdiction, to act as the point of information exchange among the ReCAAP Focal Points and with ReCAAP ISC, to facilitate its country's law enforcement investigation, and to coordinate surveillance and enforcement for piracy and armed robbery with its neighbouring Focal Points.

The operating principles of the ReCAAP ISC are respect for countries' sovereignty, effectiveness and transparency. The ReCAAP ISC serves as the platform for information exchange; collects, collates and analyses data relating to incidents of piracy and armed robbery at sea to provide assessment on trends and patterns and publish reports to its stakeholders including the Focal Points and the maritime community at large.

The ReCAAP ISC is also committed to undertake capacity building initiatives to enhance the ability of Contracting Parties and partner organisations in responding to incidents of piracy and armed robbery. The ReCAAP's model of information sharing and governmental cooperation is widely regarded as the successful anti-piracy model to be emulated in the Horn of Africa. In col-



Map of piracy incidents from January-September 2010.

laboration with the IMO, the ReCAAP ISC has contributed towards the formulation and implementation of the Djibouti Code of Conduct (DCoC).

Situation Update in Asia (January-September 2010)

A total of 118 incidents were reported during Jan-Sep 10, of which 97 were actual and 21 were attempted incidents

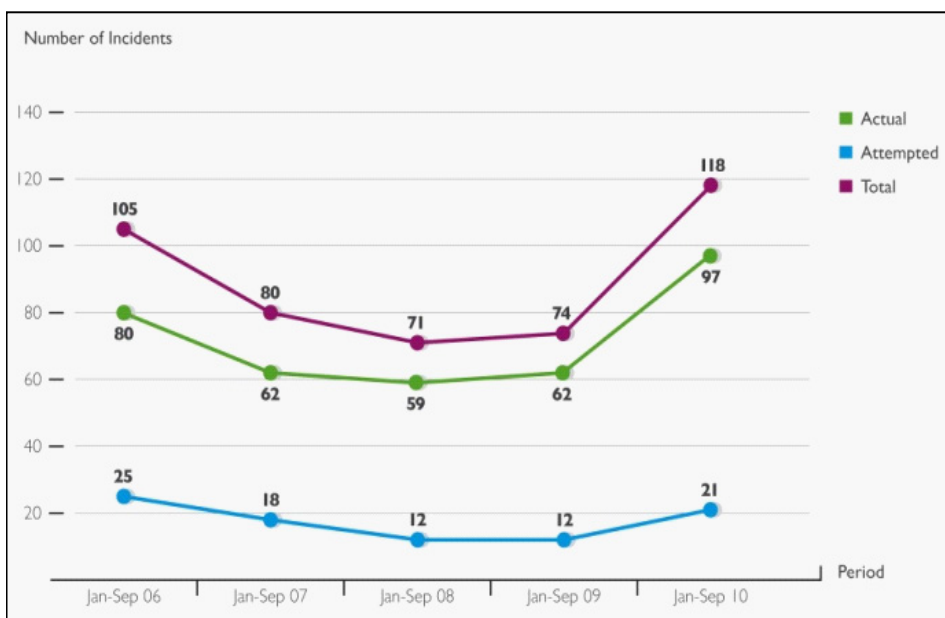


Chart 1

(refer Chart 1). This was a 60% increase as compared to the same period in 2009, when 74 incidents were reported, of which 62 were actual incidents and 12 were attempted incidents.

Most of the actual incidents were Category 2 (moderately significant) incidents involving ships while underway in the South China Sea, and Category 3 (less significant) incidents involving ships at anchor/berth at ports and anchorages in Bangladesh, Indonesia and Vietnam (refer map).

The number of Category 1 (very significant) incidents has remained fairly consistent throughout the period of January-September of 2006-2010. Of the three Category 1 incidents reported during January-September 2010, all were hijacking incidents involving tug boats. Two of the incidents involving tug boats (Asta and Atlantic 3) were subsequently found in the Philippines, and their crew was rescued by the Malaysian and Vietnamese authorities respectively.

As for the hijacking of the tug boat *PU 2007*, the quick response from the regional authorities and the presence of other law enforcement agencies in the area was believed to be one of the factors which compelled the pirates to abandon the tug boat and escape.

The hijacking incidents demonstrated information sharing and timely reporting of incident by the ship owners to the ReCAAP ISC and ReCAAP Focal Points, as well as inter-agency cooperation and responses by the authorities in locating the vessels and rescuing the crew. Moving forward, the ReCAAP ISC will continue to cooperate and collaborate with government agencies, ship owners, ship operators and seafarers in ensuring timely reporting of incidents, prompt response by authorities and effective robbery and piracy countermeasures in reducing the number of incidents of piracy and armed robbery against ships in Asia. ■

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Private Security Companies in a Maritime Context

Mr. Christopher Beese



Razor wire provides a deterrent to borders.
Photo used with permission by NYA International.

The revelation in 2008 that private actors were operating on board commercial shipping off the Somali coast appeared at first sight to be an expansion by these non-state actors out of Afghanistan and Iraq. The inevitable public reaction of the time was tainted by the perception emanating from Iraq to the effect that these shadowy companies operated outside of the law, to rules made up as they went along, without adequate oversight from the authorities and therefore, inevitably, bad news.

Surely, the less-well-informed believed, the mix of mercenary and pirate would be explosive; leading to loss of life amongst crews of commercial shipping and to further confusion for the naval forces assigned to counter piracy in the shipping lanes of the Gulf of Aden and Indian Ocean.

The truth of course, turned out to be something rather different, as conservative shipping companies looked to the more established private actors for a solution more in keeping with commercial operations. So it was that at that time the offer of overtly armed escorts went largely unheeded, while the offer of small specialist teams joining ships for transit through hazardous waters, training crews in anti-piracy drills and hardening ships against boarding, was the preferred security option and lowest cost for best effect.

The result of this 'softly, softly' approach is the widespread adoption of a range of defensive measures including the hardening of ships to prevent boarding and to prevent access to the bridge and control systems, the training of crews in response techniques, compliance with best management practices for choice of route and recommended speeds, direct liaison with naval forces through the UK Maritime Trade Organisation (UKMTO), and leadership in times of crisis. This combination of protective measures is relatively inexpensive and does not necessarily require the use of force, or therefore the carriage of firearms, and is therefore defensible to clients, shareholders, law-enforcement agencies and the public.

So where did this expertise come from? The private security sector has operated successfully and with a deliberately low profile since the mid 1970s; offering technical assistance and advice to corporates operating in high risk regions where chaos, confusion and uncertainty are bedfellows and where the presence of security expertise gives expatriate workers the confidence to remain on task in spite of the prevailing security conditions. More often than not also, these activities take place well beyond the sight of international and coalition armed forces, even if they are well known to regional embassies and

receive the tacit support of foreign ministries.

Indeed, while the emergence of a private contribution to anti-piracy has been the first sign of private maritime capability to navies in the Indian Ocean and Gulf of Aden, the maritime experience is not new to the private sector. Occasional involvement in maritime security occurred prior to the 1980s as the spread of terrorist threat to commercial shipping in the 1970s led to the provision of unarmed security officers on passenger ferries and cruise ships. By the mid 1980s, however, it was routine for private security companies to provide off-shore security for the protection of economic interests including fisheries and oil & gas extraction. These off-shore security programmes were themselves an extension of long-standing on-shore activities where the private sector had long protected pipe-lines and drilling operations.

Off-shore security, from the mid 1980s, required the securing of exclusion zones around off-shore drilling platforms and the policing of fishing activity in national waters. Routinely, clients procured patrol boats, contracted security companies to operate them, who in turn made arrangements with the host nation for its licensed law enforcement officers to crew these craft such that they operate the weapon systems and/or



A PSC watchstander keeps a sharp lookout. Photo used with permission by NYA International.

make arrests if necessary. Most recently, private security has hardened drilling platforms and trained their crews for operations in the Niger Delta and off Angola, has seen off pirates and kidnapers off Nigeria, Somalia and Yemen and has assisted in the negotiation for the successful release of kidnapped civilian crews from less well protected installations and the release of ships seized off Somalia.

By the time the piracy phenomena manifested itself off Somalia, the private security industry was experienced in the issues and ready to offer a tailored commercial solution to the developing risk. That is not to suggest that they replace navies, for their role is to supplement the formal law-enforcement component, to cooperate fully with it and to seek its support as a reaction force. The private contribution to regional security is not only cost effective in comparison to a heavier naval presence, but is a cost borne by commercial operators and not the public sector. Furthermore, when ships are taken by pirates, it is permis-

sible for the private sector to assist shippers in negotiation for release, in the context of the shippers' duty of care towards the detained crew; something that government forces may not be permitted to do under their own national laws and rules of engagement.

Thus, while some private actors provide a narrow band of services, and are experts in their chosen field, many fewer provide comprehensive solutions. NYA International, for example, has considerable experience in point protection having defeated 10 attacks by Somali pirates since 2008 and has also handled over 20 negotiations in one 15 month period alone leading to the successful release of ships and crews. It is not possible to predict developments in this sector. At the time of writing more shippers are seeking an armed solution, but that must be seen in context for presently only some 12 to 15% of shipping using the seas off the Horn of Africa with around 80% of that portion seeking an armed solution. Armed security does not present so many of the

imagined dilemmas, for the presentation of weapons alone dissuades pirates from pressing home their attacks, while the signing of the newly launched *International Code of Conduct for Private Security Service Providers*, further raises standards committed to by private actors and differentiates the scrupulous from the less scrupulous.

So it is that the private sector is neither new to maritime security duties, nor lacking in expertise. The private contribution, however, is most effective when operating with naval forces in a mutually supporting role such that appropriate expertise is blended with strength to provide dedicated and tailored security capacity to vulnerable shipping; assets of vital economic importance. ■

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www.nyainternational.com

Piracy Today - EXTAC 789

CDR Mark Coffman, USA-N



Pirates off the Somali shore. US Navy photo by MC2 Jason Zalasky.

The scourge of maritime piracy has reemerged in the 21st century and has become a significant problem for the world community. The recent wave of piracy has been most acute in the region around the Horn of Africa. Since 2007, there has been a significant increase in the number of pirate attacks throughout the Gulf of Aden and off the coast of Somalia. Victims of these attacks have included tankers, container ships, fishing vessels, and civilian pleasure craft, among others. Video clips of pirate attacks, embedded into a global 24-hour news cycle, have brought the phenomena of modern piracy to the international community's consciousness. Because of increased piracy-related violence off the coast of Somalia, governments and governmental agencies have been compelled to respond. As part of a broader strategy to address the problem of piracy, various nations have deployed maritime forces to the Horn of Africa region. Some countries have deployed their forces independently, while others have sent their forces as part of a coalition or alliance effort, such as NATO's Standing NATO Maritime Group (SNMG) or the European Union's EU Naval Force Somalia (EUNAVFOR). Sending maritime forces to deal with the resurgence of this ancient threat is a logical response, and the general mission assigned to these forces is to

protect maritime trade and to deter or defeat pirate attacks. However, for the most part, the staff officers and crews of deployed warships have not been specifically trained in counter-piracy operations. Indeed, most countries do not have any written counter-piracy doctrine, tactics, techniques, and procedures, though many existing skill sets are certainly adaptable to the mission. As might be expected, officers and crews of warships deployed to the region have responded to the challenge by devising effective plans and procedures in order to achieve their assigned tasks. Unfortunately, the doctrine and tactics devised have not been formalized, which is necessary for standardization and training; nor are they distributed amongst participating navies, which inhibits continuity of effort, interoperability, efficiency, and safety.

CJOS COE recognized this gap in counter-piracy doctrine, and wanted to contribute to the multinational counter-piracy effort. To begin, CJOS COE developed an initial draft of counter-piracy guidance based on the growing database of lessons learned. The result of CJOS COE's effort was the development of Experimental Tactic 789 (EXTAC 789); a multinational, operational to tactical level, counter-piracy planning and guidance document.

The goal of drafting EXTAC 789 was

to establish a baseline doctrine for the conduct of multinational counter-piracy operations, while recognizing that the doctrine and tactics contained within would evolve over time as experience in this mission area is gained. The initial draft was completed in February 2009 and submitted to NATO's Maritime Operations Working Group (MAROPSWG) for review and consideration. The intended audience for EXTAC 789 included staff officers at the operational and tactical level of war as well as operators at the unit level. Although a rather broad scope for a traditional "EXTAC", the purpose was to educate staffs and the crews of warships on the fundamentals of counter-piracy operations as well as provide tactical level guidance on the execution of counter-piracy mission tasks.

The content of EXTAC 789 includes a main body and multiple annexes. The main body and most annexes are NATO unclassified and releasable to the European Union. Four annexes are currently classified as NATO Confidential and include information on tactical planning, unit coordination, response options, and special tactics. The main body of the document focuses on operational planning and begins by establishing a set of definitions to ensure commonality of terms to ease planning and prevent confusion. The main body also provides an analysis of a generic

pirate strategic, operational, and tactical centers of gravity and continues with a discussion on recommended lines of operations, operational phases, and mission execution. The annexes support the main body and provide more tactical planning and execution detail. There are currently 13 annexes, and they include information on the characteristics of piracy, guidance to civil mariners, UN Convention on the Law of the Sea (UNCLOS), tactical planning considerations, pre-planned responses, information operations, and tactical coordination, among other topics.

After completion of the initial draft of EXTAC 789, CJOS COE recognized that it was essential to find an opportunity to test and evaluate the concepts contained within the document. CJOS COE found this opportunity during BALTOPS 2010, which included counter-piracy training as part of the exercise objectives. A CJOS COE representative was graciously hosted by Commander Danish Task Group (COMDATG),

Commodore Per Bigum Christensen, Royal Danish Navy, aboard the flagship HMDS ESBERN SNARE during the exercise. This partnership proved to be fortuitous as Commodore Christensen and others on his staff had considerable counter-piracy experience, including command of Combined Task Force 150. Commodore Christensen and his staff provided a thorough review of EXTAC 789 and provided excellent recommendations based on their own operational experiences. Additionally, the BALTOPS counter-piracy serial events provided valuable lessons learned, which were used to refine information on tactical planning, pre-planned responses, and the integration and coordination of warships, RHIB boats, and helicopters in pursuit of fleeing pirate boats. All of the experiences gained during BALTOPS 2010 validated many existing concepts or were immediately incorporated as changes to the initial EXTAC 789 draft, greatly improving the quality of the document.

As a result of a MAROPSWG recommendation in April 2010, it was decided that CJOS COE would turn EXTAC 789 over to the United Kingdom's Maritime Warfare Center (UK MWC) for more detailed testing and evaluation. This turnover of responsibility for the EXTAC was completed in July of 2010. The EXTAC 789 version provided to UK MWC included all the lessons learned from BALTOPS 2010. It is hoped that with UK MWC's additional resources and expertise, EXTAC 789 will eventually evolve into an Allied Tactical Publication (ATP) for counter piracy operations. A well developed and tested counter piracy ATP will provide future NATO and coalition naval forces sound guidance in order to effectively and safely complete their mission. ■

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The USS Farragut (DDG 99) disables a pirate skiff in the Gulf of Aden. US Navy photo by MC1 Cassandra Thompson.

2010 Maritime Security Conference Review

CDR Pierre Granger, USA-N
CDR Jose Martin, ESP-N



2010 MSC in Lisbon. Official US Navy photo.

CJOS COE 2010 Maritime Security Conference Summary: The need for an Enhanced Framework for International Maritime Security Cooperation

In May 2010, CJOS COE hosted its third annual Maritime Security Conference (MSC) in Lisbon, Portugal. The Conference theme was “*Delivering Maritime Security in Global Partnership: A Comprehensive Approach for Mutual Benefit*”. The aim of the conference, to examine how International Organizations and emerging Regional Maritime Security Organizations handle the challenges of integrating a diverse range of actors working to maintain Maritime Security, and identify best practices, was certainly achieved. In the end, conference participants agreed that the MSC enabled candid and frank discussion on hard topics, and ultimately, time spent at the conference benefited all.

To foster the debate during the conference, CJOS COE identified six separate challenges to Maritime Security and supported these topics through presentations given by 23 distinguished speakers, from both military and civilian communities. These high level speakers represented key government, multinational organizations and industry stakeholders.

Conference Objectives

1. To highlight the interests and unique viewpoints of both international and regional organizations that share a mutual concern in fostering key global maritime security initiatives, and to facilitate an inclusive and comprehensive style discussion to identify where better civil-military collaboration and cooperation could lead to mutual benefit.
2. To examine practical military experience in supporting a comprehensive approach to the delivery of maritime security at the strategic, operational, and tactical levels and to identify best practices where possible.
3. To gain a practical civilian perspective regarding international, national, regional, and corporate challenges, that if examined through comprehensive engagement, will create opportunities for resolution and promote timely and effective development of capabilities and operational processes that will support an integrated global maritime security architecture.
4. To encourage support for, and sharing of, best practices, within a collaborative partnership of state agencies which will transform best practiced integrated effects into a standard realization of global maritime security.
5. To examine the validity of establishing central repositories for both military and civilian best practices that could be shared among participating states, international agencies and corporate entities concerned with standardizing the delivery of maritime security.
6. To examine the validity and feasibility of adopting a template for Regional Maritime Security Sectors which would serve to coordinate activities associated with fostering global maritime security.

As the conference progressed, much effort was focused on highlighting the interests and unique viewpoints of both international and regional organizations that share a mutual concern in fostering key global maritime security initiatives. The plenary discussions helped to facilitate inclusive and collaborative interaction to identify areas where better civil-military coordination and cooperation could lead to mutual benefit of security and safety on the seas.

Throughout the discussions, military officers shared their perspective on current practical experiences and best practices which incorporate a collaborative approach in delivering maritime security across the strategic, operational, and tactical framework. Equally important, the civilian audience shared their views regarding international, national, regional, and corporate challenges. The

corporate perspective was found to be particularly important, since there are fundamental economics at play for all stakeholders when seeking resolutions that promote the development of effective processes that would permit truly integrated global maritime security architecture.

Plenary sessions held throughout the conference, as well as after sessions discussions, showed a common support for the sharing of best practices within a collaborative framework of like-minded stakeholder agencies and enterprises. The proposed concept for establishing an “Enhanced Strategic Network for Maritime Security Cooperation” was discussed. Such a system (possibly modeled after the ICAO system) would adopt the best practiced integrated effects of various regional maritime security cooperatives to create an international governance structure. This structure would establish recommended standards for establish-

ing national and regional global maritime security cooperation architectures that are relatively similar at the strategic, operational and tactical level. Also discussed was a need to establish central repositories for both military and civilian best practices that could be shared among participating states, international agencies, and corporate entities concerned with standardizing the delivery of maritime security.

Overall, the CJOS COE Annual Maritime Security Conference was a great success. It met all of its objectives, capturing the perception that there was a need to forge together all the regional best practices in the comprehensive Maritime Situational Awareness approach to form a more solid global security network. To articulate this idea, in October 2010, CJOS COE drafted a White Paper proposing the creation of an Enhanced Framework for International Maritime Security Cooperation that would help resolve the burdening

maritime security challenges in the global community.

This paper will be discussed thoroughly during the May 2011 CJOS COE annual conference in Kiel, Germany. Following further critique and ratification of the original draft, the white paper will be forwarded to IMO for consideration in drafting a future resolution before the General Assembly of the United Nations. The aim of this resolution will be to encourage nations to expand their level of cooperation and collaboration to bring greater security to the maritime commons. ■

CDR Pierre Granger, United States Navy, is Head of the Experiment Section of the Exercise and Experimentation Branch of CJOS COE.

CDR Jose Martin, Spanish Navy, works within the Experiment Section.



CDRE Handley address the conference. Official US Navy Photo.

Maritime Security & Information Sharing

Mr. Derek S. Reveron



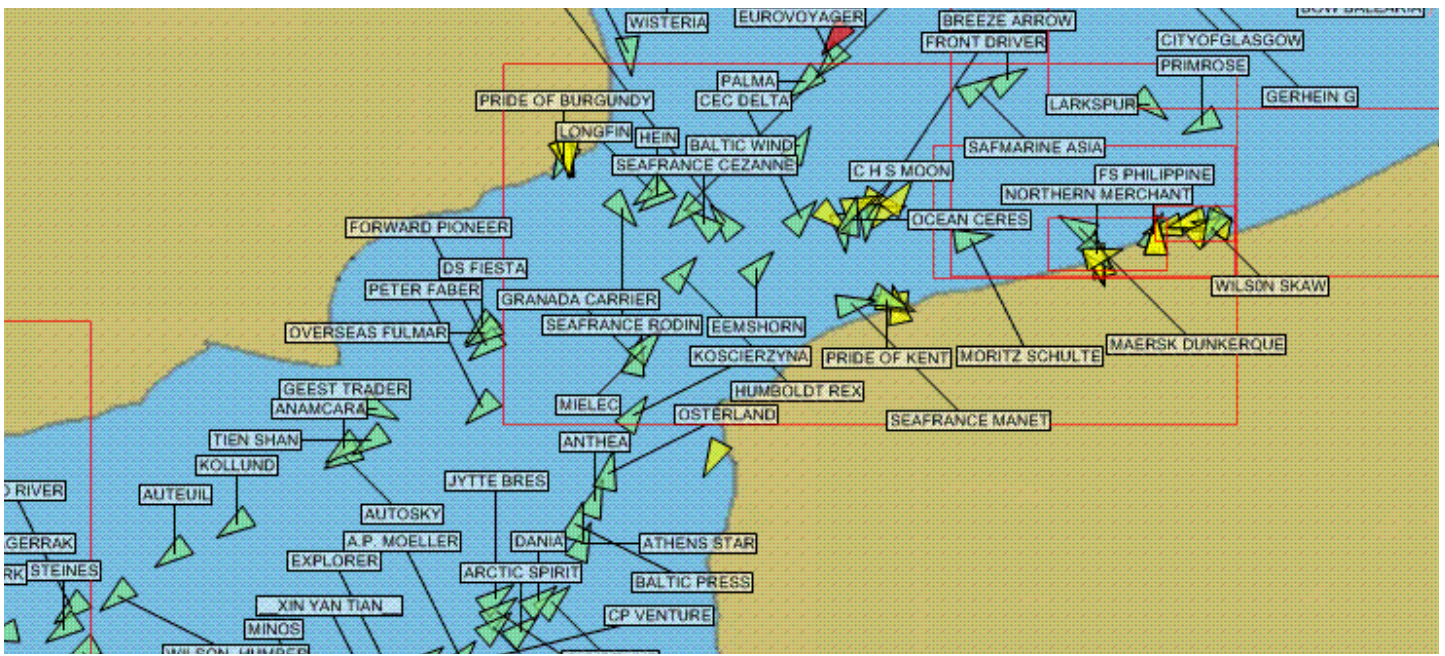
Unclassified networks are monitored aboard the USS Ronald Reagan (CVN 76). Official US Navy photo by Rick Naystatt.

Over the last thirty years, naval missions have shifted from anti-surface warfare in the 1980s to strike warfare in the 1990s to maritime security in the 2000s. The change has been driven both by the security environment and governmental security policies. Unlike the time when an adversarial fleet was the prime maritime concern, sea-borne illicit activities occupy naval policy today. Governments now expect navies to interdict traffickers of drugs,

people, and weapons, prevent piracy, and reduce illegal, unregulated, and underreported fishing activities. Some NATO navies are better equipped than others for these missions and this is evidenced in the leadership role played by European officers in the Mediterranean through Operation Active Endeavor and in the Indian Ocean in the various counterterrorism and counter-piracy task forces that exist.

The naval coalitions do bring together traditional NATO allies, but also in-

corporate non-allied countries in an unprecedented peace-time fashion. In the Gulf of Aden, for example, South Korean warships operate with British ones. Critical to these coalitions is information sharing. In maritime security operations, intelligence is the key to success and it must be shared with a variety of actors that cross the public-private divide and international boundaries. To be sure, information sharing is a virtue in a world characterized by non-state threats, but there



A typical AIS plot showing realtime positional data of commercial vessels. Image from Wikimedia Commons.



Lt j.g. Dane Hill demonstrates an Automated Information System (AIS) ship tracker to a group of Ghanian Naval officers. US Navy photo by MC2 Jason Poplin.

are many challenges.

Often, information sharing is viewed as a technical challenge complicated by incompatible systems, proliferation of databases, and accessibility. These challenges exist but there are multiple examples that illustrate information sharing is possible on maritime issues; these include Virtual Regional Maritime Trafficking Center, Regional Maritime Information Exchange, and the Asian Pacific Area Network. Yet, technical challenges are just one-fourth of the challenges. The others include: policy, law and culture.

Policy challenges vary by context. At the tactical level, the sea services across the globe have a rich history of sharing information to respond to ship casualties or search and rescue operations. Outside of crisis, however, bureaucratic structures, classification guidelines, and disclosure rules disrupt “normal” information sharing. Given the proprietary nature of some ship activity, crew characteristics, and cargo information, govern-

ments are loath to share all maritime data they possess.

In addition to technical and policy challenges, there are legal challenges to information sharing. Treaty allies have a good basis for expanding existing agreements, but often, countries prefer bilateral exchanges. A bilateral approach may serve the best national interests for two countries, but the nature of non-state threats is multilateral. For example, cocaine is trafficked from Colombia, through Brazil, to Guinea, and then to the Netherlands for distribution throughout western Europe. To facilitate cooperation across governments, information sharing agreements should avoid exclusivity and encompass as many governments as possible, but also include commercial shipping companies too. This creates a new set of cultural challenges.

In the service of national priorities, navies have secrets and a comprehensive system to avoid unintentional disclosure of classified information. Decades of protecting information

created a “need-to-know” culture with few incentives to share information. With many navies involved in coalition operations today, a “need-to-share” culture is essential. Strategies can promote this idea and leaders can encourage sharing, but creating a culture of sharing will take time. Fortunately, the current generation of leaders taking part in multinational operations understands the importance of information sharing and this culture will come to dominate. While the challenges to sharing exist, navies are adapting to the omnipresent coalition environment, exchanging best practices, and developing the habit of reaching beyond their traditional spheres of information exchange. ■

Derek Reveron is a professor of national security affairs at the US Naval War College in Newport, Rhode Island. His latest book is Exporting Security: International Engagement, Security Cooperation, and the Changing Face of the U.S. Military.

Legal Aspects of Maritime Information Sharing: Issues & Solutions

CDR Kim Young, USA-N



In 2008, the NATO Military Committee (MC) tasked Headquarters, Supreme Allied Commander Transformation (HQ SACT) to develop a Maritime Situational Awareness (MSA) Concept. The tasking included a Legal Study to examine issues in maritime information sharing. The Study was completed in September 2010 and focuses on information required for effective MSA, including how information is generated, controlled, used, and distributed.

Simply, MSA is awareness of the maritime operating environment. Effective MSA arises from four related components:

Components

1. Timely and sufficient information.
2. Technology to process the information.
3. Analysts to assess the operational implications of the information.
4. Flexible arrangements for coordinating and sharing with stakeholders.

The first component requires two sets of data for information superiority: routine daily information needed to create a steady-state maritime picture and information needed during times of increased danger. When a threat or cri-

sis looms, information is shared readily among nations. However, when operational tempo is routine, the information flow subsides although an accurate picture must still be maintained. The Legal Study addressed the ability and willingness of NATO Nations to share maritime information identified as necessary by the NATO maritime component commands. All 28 NATO Nations provided input.

The Study found that all NATO Nations have the capacity to share some maritime information with NATO; however, NATO is missing certain maritime information that could increase its MSA. National responses suggested two patterns:

Patterns

1. Certain nations are more prone to cite constraints than others.
2. Certain information requirements consistently trigger constraints.

As a whole, obstacles to data-sharing involve legal, policy or classification issues.

Three categories of legal issues affect MSA information sharing:

Issues

1. Limitations imposed by privacy and data protection laws.
2. Legal obligations from contractual provisions, i.e. commercial confidentiality.
3. Limitations due to pending civil or criminal investigations or litigation.

More nations cited policy as a limiter to information sharing than any other reason. An analysis of national responses reveals that policy limitations are related to trust, and center around reciprocity, need-to-know and the protection of classified material or sensitive sources.

Although classification issues affect some nations, existing NATO security agreements provide adequate protection and safeguards to allow nations to share maritime information with the NATO maritime commands.

Challenges during the Legal Study echo the same challenges that MSA itself faces: lack of communication, lack of coordination, and mindsets oriented toward prohibition rather than permission.

The legal study team analysed all national responses and concluded as follows:

Conclusions

1. NATO Nations are generally willing and able to share maritime information with NATO.
 2. MSA is not yet a priority for all NATO Nations or NATO.
 3. Legal issues do not present a significant barrier to information sharing.
 4. Policy considerations do present a significant barrier to information sharing.
 5. NATO can benefit from existing information-sharing partnerships.
 6. Maritime sharing protocols must be clear.
 7. Infrastructure and technology must support MSA.
 8. Nations must adopt a “green light” approach to information sharing.
- Many of the issues presented in the

conclusions could be resolved by implementing the following recommendations:

Recommendations

1. Create a strategic communication plan to promote awareness and understanding of MSA.
2. Establish MSA points of contact in NATO Nations.
3. Train and exercise MSA.
4. Seek commitments to share information about national Vessels of Interest.
5. Develop, maintain, and advance technology.
6. Approve an INTERPOL pilot project and consider other relationships with law enforcement agencies.
7. Establish relationships with existing maritime information-sharing

organizations.

8. Coordinate with the EU.
9. Update existing policies and procedures that affect MSA.

The Legal Study also researched existing information sources with worthwhile systems, procedures, and information: (1) regional data-sharing arrangements, (2) law enforcement mechanisms, (3) European Union (EU) initiatives and systems, and (4) shipping companies. Cooperation with these entities could increase Alliance MSA. The MSA Legal Study is a first step towards identifying impediments that prevent NATO Nations from sharing information with NATO. ■

CDR Kim Young, JAGC, is a United States Naval Officer and staff legal advisor at HQ Supreme Allied Command Transformation.



NATO headquarters in Brussels, Belgium. DOD photo by MSG Jerry Morrison.

PANAMAX 2010

MCC (SW/AW) Mary Popejoy, USA-N
MC2 (SW/AW) Rafael Martie, USA-N



US and Panamanian Marines during PANAMAX 2010.
US Navy Photo by MC2 Rafael Martie.

Panama Canal Takes Center Stage During PANAMAX 2010

The Panama Canal is considered one of the engineering wonders of the world due to its contribution to world trade and shipping. The canal is 50 miles long and unites the Atlantic and Pacific Oceans at one of the narrowest points of both the Isthmus of Panama and the American continent. The canal consists of three sets of locks – Gatun, Pedro Miguel and Miraflores – each of which has two lanes. Operations continue 24 hours a day, 365 days a year, allowing more than 14,000 vessels ferrying nearly 280 million tons of trade goods between Eastern and Western nations each year. The canal transports 16 percent of total U.S.-borne trade and 68 percent of canal traffic originates in or is destined for the United States.

Business, industry and government within the United States clearly have an interest in reliable, open access to the Panama Canal. Although the United States' formal responsibility in the canal concluded at noon, Dec. 31, 1999; a partnership with the Government of Panama continues today to provide uninterrupted passage to ships of all the nations of the world.

In support of that partnership, the U.S., Panama and several Partner Nations come together once a year for

PANAMAX, a 12-day regional exercise focused on training participants as a joint, multinational force to protect the Panama Canal.

The exercise, co-sponsored by the Government of Panama and U.S. Southern Command, took place August 18-26 in the vicinity of the Panama Canal, Colombia; Norfolk, Virginia; Miami, Florida and Mayport, Florida. The exercise featured the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE), which is located within Second Fleet Headquarters, components from 12th Air Force in Tucson, Arizona and U.S. Army South from Fort Sam Houston, Texas, with more than 2,000 civilian and military personnel participating from 18 countries.

Representatives from Argentina, Belize, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, United States and Uruguay had the opportunity to share their knowledge of ground, naval and air operations, and Special Forces.

PANAMAX 2010 provided U.S. Second Fleet (C2F) staff the ability to maintain proficiency as a Joint Task Force-capable headquarters. During the exercise, C2F assumed the role of a joint task force leading a multinational force while operating under a United Nations

resolution. Forty-two representatives from 13 foreign nations worked at the C2F Maritime Headquarters throughout the exercise.

In addition to testing the team's ability to respond to threats to the Panama Canal, PANAMAX also tested their capability to plan and execute a large-scale, simulated humanitarian assistance and disaster relief operation in the region.

"PANAMAX is the capstone event that leverages the strengths and capacities of our partner nations in building a coalition for mutual defense or distributed assistance," said Cmdr. Dave Givey, Multi-National Forces South Theater Security Cooperation/Inter-Agency Coordination for C2F. "Security cooperation and partnership with coalition militaries improves multinational relations through working together to achieve collective security and prosperity in the region."

In order to effectively communicate with PANAMAX participants outside the Norfolk area, the exercise focused around the All Partner Access Network (APAN). It is a "community of communities" web site that combines the benefits of unstructured collaboration (blogs, forums) and structured collaboration (file sharing, calendar) with the personalization of social networking to facilitate unclassified information sharing with multinational partners,

non-governmental organizations, and among various U.S. Federal and State agencies.

“APAN proved to be an extremely valuable means for the sharing of information and collaboration with our partner nation participants. Additionally, it provided a single repository for exercise documents and a means to share significant event information/developments across the three levels of military planning and operations (Strategic, Operational, Tactical) involved in the exercise,” said Nancy Jenkins, C2F’s knowledge management officer.

Ecuadorian Navy Capt. Roberto Yanes, enjoyed using APAN and networking with partner nations and U.S. military personnel. “It was great to see the interaction and involvement of a joint operation in person and to use APAN to monitor daily threats in the given scenarios.”

“It is always gratifying to work with people with different cultures, background and experience,” said Canadian Cmdr. Edmund Garrett, CJOS COE PANAMAX Section Head. “It allows you to develop different perspective from your usual approach. They were all very friendly and keen to work with us, even if we weren’t all American.”

With simulated Panama Canal scenarios at the ready, PANAMAX participants relied upon APAN, each

other and translators to communicate key themes, messages and guidance. “Translators were vital to the operational and tactical course of PANAMAX since many of the partner nations are not fluent in English,” said General Sub Director of Panama, Brig Gen. Juan E. Vergara Frias.

Colombian Marine Capt. Andres Vasquez Billegas, in charge of the Caribbean Navy Force, was impressed with how well they were able to translate so much information into understandable Spanish. “The translators were professionally knowledgeable of the topics, even with an immense number of acronyms used, and were vital to decisions made in the operational, strategic level, and essential in clarifying subjects discussed,” said Vasquez Billegas.

Whether it was translating a speech or training session, the overarching goal was to keep everyone on the same page concerning simulated events involving the security of the canal and ensuring its unhindered access and operation. “This exercise allows us to practice and unite as a whole in defending the canal,” said Vergara Frias. “We as Panamanians are proud to have the canal, but we also understand the importance it has on the economy of Panama, the continent and the world.”

In addition to using computers during simulated scenarios, U.S. Navy

Riverine Squadron (RIVERON) 3 and U.S. Marine Corps 2nd fast company were able to participate in live training events with the Panamanian Marines from the National Aero-Naval Service (SENAN), to conduct a riverine counterdrug exercise. “We got great training alongside the Panamanian Marines. I never imagined we would learn a lot from each other, and I look forward to working with them again in the future,” said Quarter Master Second Class (EXW) Jack Dougherty.

According to Air Force Gen. Douglas Fraser, commander, U.S. Southern Command, with live training and simulated scenarios, PANAMAX participants were successful in their quest to defend the canal. “This year, PANAMAX participants have learned and shared the knowledge required to successfully support multinational maritime, air and land operations with a focus on protecting the canal against serious threats,” said Fraser.

Practice makes perfect, which is why Vice Adm. Daniel Holloway, C2F commander, is confident his team of U.S. and partner nations will perform flawlessly together if a real-world event occurs. “I am extremely proud of the entire Second Fleet team, our partner nations and joint partners for making PANAMAX a huge success,” said Holloway. “The knowledge, expertise and planning during the exercise was simply phenomenal. Our processes received arduous testing, allowing us to practice “what if” scenarios and reach out to our counterparts in the international community to determine the best course of action for each situation. I am left with tremendous confidence that our PANAMAX team will do an outstanding job if and when the call to action may come.”

PANAMAX began in 2003 with the participation of three countries: Panama, Chile and the United States. Since then, exercise participation has grown significantly, peaking during PANAMAX 2009 with 20 nations. ■

MCC (SW/AW) Mary Popejoy and MC2 (SW/AW) Rafael Martie are mass communication specialists who work in the SECOND Fleet Public Affairs Office.



A Brazil Navy Lynx delivers a boarding team. US Navy Photo by Todd Frantom.

Humanitarian Assistance and Disaster Relief H.A.D.R

The Navy Supports L.I.F.E

CDR Yann Le Roux, FRN-N



Lt. Toinette Evans, from the USNS Comfort, embraces a child at St. Damien Hospital in Port-au-Prince Haiti. US Navy photo by MC2 Chelsea Kennedy.

“The purpose of Humanitarian Assistance and Disaster Relief (HADR) missions is to relieve or reduce the results of natural or man-made disasters or other endemic conditions such as human pain, disease, hunger, or privation that might present a serious threat to life or loss of property.”

-The Navy Supports L.I.F.E.

For most navies, HADR is not a secondary mission anymore. Indeed, for the last decade, the increasing number of reported catastrophes worldwide has triggered a universal sensitivity, urging governments to develop national HADR capabilities: civilian and military.

However, in most cases, those dedicated resources have proven to be insufficient to provide an effective response on their own. The recent, large-scale disasters have clearly demonstrated a vital need for greater coordination and cooperation, while highlighting their greatest weakness: a lack of mutual understanding and knowledge.

By developing “The Navy supports L.I.F.E” concept, the CJOS COE provides a structured approach to improve both coordination and cooperation.

Providing assistance to the victims after a natural or man-made disaster is not a new task for Navies. While deployed worldwide in the framework of more traditional missions, warships are frequently the first on scene to bring a quick response after a catastrophe.

However, due to short notices, limited specific capacities and a lack of dedicated education and training, those emergency responses have oftentimes been unable to deliver the utmost desired effects.

Today, as a result of the increasing number of reported natural disasters, the humanitarian cause has become a worldwide matter of concern for the public opinion, urging governments to require their military forces to develop more efficient HADR capabilities. Since 1975, the number of natural disasters worldwide has risen fivefold! This dangerous trend, certainly linked to the significant improvements in information of the last decades, highlights however a real increasing risk of exposure for a larger population.

The risk of humanitarian tragedies increases furthermore, as the booming population growth compels an urban extension into more exposed areas, especially along the coasts, where the potential risk of natural disasters like tsunamis, hurricanes, and floods is the highest. In this coastline environ-

ment, Navies are naturally expected to play a key role and to perform HADR with the same proficiency as their more traditional missions. With large scale disasters like the earthquake in Haiti in early 2010 where more than 220,000 people were killed and more than 2,000,000 people required emergency services, coordination proves to be the only way to reach and rescue the greatest number of victims.

Coordination allows sharing vital information to assess the whole situation, while benefiting from complementary means, for a more rational use of limited resources.

As coordination requires a minimum of communication, it allows the humanitarian actors to explain their own objectives and therefore avoids prejudicial misunderstanding: “A humanitarian force for good instead of an invading force.” On the other hand, the lack of coordination leads to a duplication of effort, which wastes limited allocated resources and therefore deprives victims from receiving assistance.

Despite its obvious benefits to the victims, coordination remains a difficult challenge not only to achieve but even to promote. In a time of financial constraints, the struggle for recognition is vital for many organizations to motivate funding. In this competition for credit, other humanitarian actors may be perceived as peer competitors.

“Building on relationships forged in times of calm, we will continue to mitigate human suffering as the vanguard of interagency and multinational efforts, both in a deliberate, proactive fashion and in response to crisis. Human suffering moves us to act, and the expeditionary character of maritime forces uniquely positions them to provide assistance.”

– A Cooperative Strategy for 21st Century Seapower - October 2007

While coordination should only address the needs of the victims, the level of media coverage of the different areas to rescue is taken into account in the decision making process.

Independence is often a key argument used to gain public funding. For the smallest organizations, being part of the coordination process presents a risk to their independence that major organizations could threaten with their heavy weights in the decision making process.

Depending on their nationalities and ideologies, some organizations will refuse to be committed with other ones, making the coordination process more complicated. Those restraints are always paramount, even to the fate of the victims. Many organizations refuse to deal with military forces considering them as hostile forces!

In addition to those previous challenges, the Navies have to address their own cultural and educational challenges. Instead of maneuvering alone, far from the coasts, HADR requires to

operate in the confined littoral environment, under the constraints of many different military and civilian actors:

- The host nation government
- Their national governments
- International Organizations (IO)
- Non-Governmental Organizations (NGO)
- Other military services and foreign forces

As an example, more than 3000 NGOs were deployed in Haiti after the Earthquake!

Coordination with those actors requires a shift from a structured and hierarchic approach to an apparent chaotic consensual decision making process. We are used to giving or receiving orders by following procedures in a command structure, while coordination with IOs and NGOs works much differently. Their tactical level leads the mission, while our strategic/political level wants to exercise the closest

control of our actions. Their high level of delegation doesn't match the limited military one.

We are used to operating in a supported/supporting relationship with other military services, taking for granted that our capabilities are almost known. In HADR, our capabilities are sometimes ignored but always underestimated and therefore underemployed. The benefits granted by the freedom of maneuver, by the principles of sea-basing and by global reach sound familiar only to a minority with previous Navy experience.

Humanitarian actors are part of a community, built from one disaster to another, while we are considered as part-time players. This community has its own mechanisms and language. As HADR was not part of our core missions, only a very limited number of sailors can pretend to belong to this community.

This lack of specialists combined with limited dedicated education and training brings a heavy burden to the maritime commanders. Their staffs are wasting their time in reinventing the wheel, when they should only focus on new challenges. Despite naval forces being already deployed in humanitarian operations, HADR is still considered as a long-term capability to acquire and therefore remains a secondary training



The author showing the L.I.F.E H.A/D.R. concept in action.



CDR Yann Le Roux on the ground during Unified Response.

objective.

For a more effective coordination with our humanitarian partners, we need to:

1. Palliate the lack of education and training, by providing the maritime commanders with an HADR-dedicated toolbox including the basics to plan and conduct their missions.
2. Improve our mutual understanding and knowledge with a basic interface, matching the needs of our partners with our capabilities.

To address these challenges, CJOS COE has developed “The Navy supports L.I.F.E.” concept. L.I.F.E. stands for:

- Logistic
- Information
- Force Protection
- Expertise

These are the four main domains where navies can make a difference.

L.I.F.E. provides the maritime commander with a structured approach to plan and conduct his mission. Whatever the size of the naval force, the commander should be able to assess through those four domains the level of support he is able to provide immediately and to identify the missing capabilities that the follow-on forces will need to bring

in later.

During the whole mission, without waiting for any request, the L.I.F.E. status should be used to update and promote those available capabilities. However, this updated status must clearly remain an information tool, as the tasking of those means needs to be prioritized through the coordination process.

The “Navy supports L.I.F.E.” is an educational tool for our humanitarian partners but also for the sailors. This slogan provides the basic knowledge required to understand how the navies should support the humanitarian effort. By highlighting the supporting role of the navies, this motto reminds the vital need for coordination.

“The Navy supports L.I.F.E.” concept is also a promotional tool to emphasize the real humanitarian objectives. It matches the US Navy motto: “A force for good”.

The L.I.F.E. concept should be used by the humanitarian organizations as an interface to match their demands with supplies. If navies use the L.I.F.E. status to report their current available HADR capabilities, their humanitarian partners should use the same architecture to express to the coordination centers their requests for support. A better knowledge of the available means combined

with an appropriate way to request them, should improve the global effectiveness and avoid any further waste of precious resources.

“The Navy supports L.I.F.E.” concept will not compete with the real benefits from dedicated education and mutual training. However, as maritime forces are already involved in HADR operations, it should improve their efficiency to conduct this new ‘main’ mission by providing a common structured approach to the operation, a better shared understanding of the navies’ humanitarian capabilities and a common interface to match the demand for support with the supply of resources.

A better mutual understanding will improve the humanitarian coordination at the benefit of the victims. ■

CDR Le Roux is a surface warfare officer in the French Navy and the Team Leader of the CJOS HADR team.

The following also contributed to this study:

*CDR Rick Adside, USA-N
LtCol Gary Yuzichuk, CAN-A*



The Military Sealift Command hospital ship USNS Comfort (T-AH 20) and the USNS Leroy Grumman (T-AO 195) conduct an underway replenishment in the Caribbean Sea during Operation Unified Response. US Navy photo by MC3 Matthew Jackson.

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Cutting the Bow Wave 2010-2011, Combined Joint Operations from the Sea Centre of Excellence

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CJOS COE in collaboration with COE CSW



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