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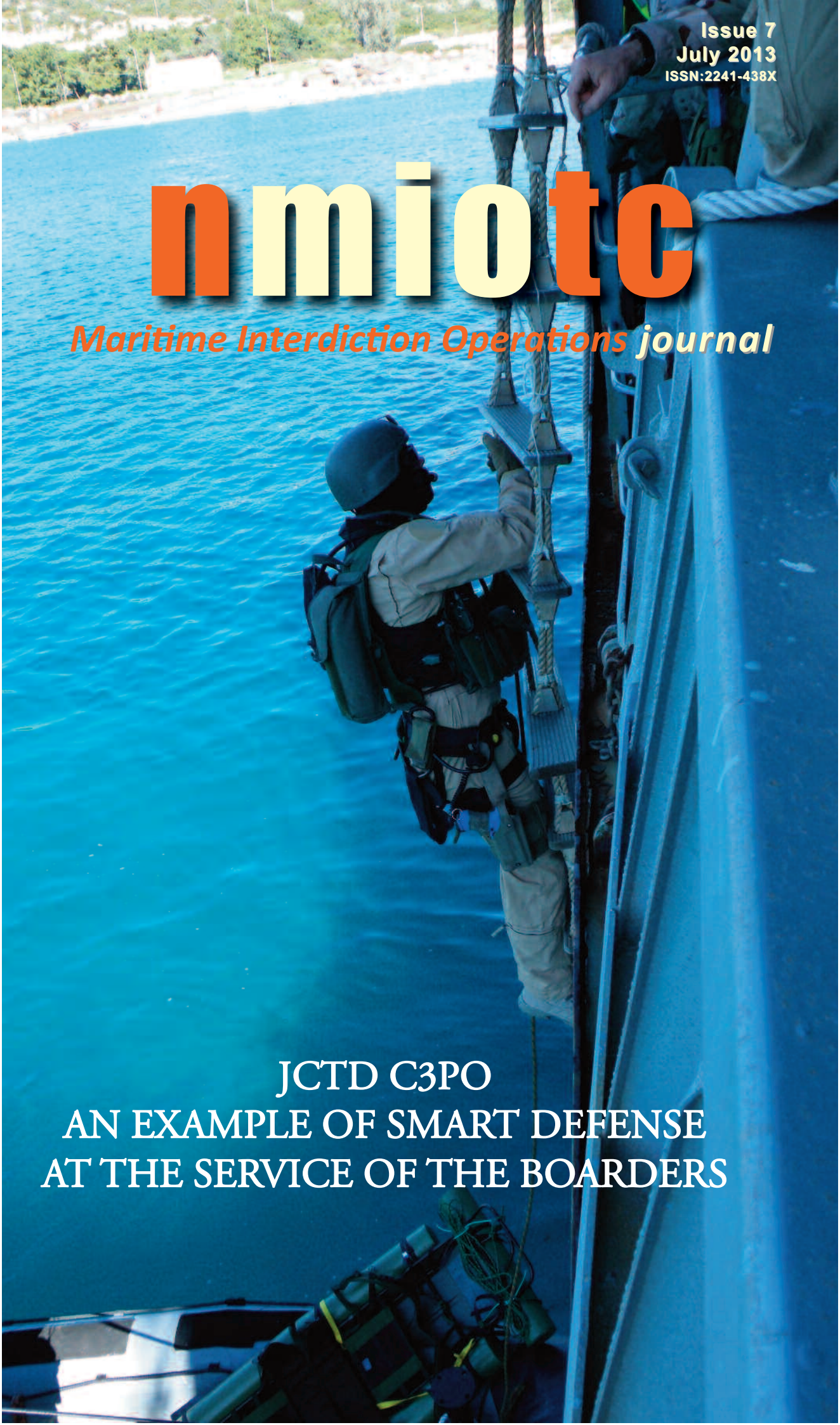

JCTD C3PO
AN EXAMPLE OF SMART DEFENSE AT THE SERVICE OF THE BOARDERS

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The **NMIOTC MIO Journal** is a professional publication of NATO Maritime Interdiction Operational Training Center, aiming to serve as a forum for the presentation and stimulation of innovative thinking on NATO Maritime Interdiction related issues such as doctrine, concepts, force structure, employment and readiness.

The views and opinions expressed or implied in the **NMIOTC MIO Journal** are those of the authors and should not be construed as carrying the official sanction of NATO.

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COMMANDANT'S EDITORIAL

by Commodore Ioannis Pavlopoulos GRC N

NMIOTC's MISSION

To conduct the combined training necessary for NATO forces to better execute surface, sub-surface, aerial surveillance, and special operations activities in support of Maritime Interdiction Operations.

NMIOTC Commandant's Vision

Enhance Maritime Security through MIO Training and remain Alliance's credible MIO expert.

PIRACY AND THE HORN OF AFRICA

Piracy, or "robbery on the high seas", has always existed since people, commercial goods and commodities have traveled through the oceans, and ever since the beginning of "State-sponsored" Navies, the suppression of piracy has been one of their major concern and responsibility.

The ancient Greeks, Romans, and Chinese had the common complaint and concern, and thus created naval forces to fight pirates.

As early as 74 B.C., when Julius Caesar was captured by pirates during his journey to Rodos, the first thing he did after paying the ransom and being released was to fit out a squadron of ships to sail against those pirates and to take his revenge.

The word "Piracy" is derived from the ancient Latin word "pirata" (sea robber) and even earlier from the Greek term "peirates" (those who attack ships). Piracy, though, has evolved over time, as maritime commercial trade expanded.

The frightening increase in piracy off the coast of Somalia since the beginning of the present century demonstrates how fast this kind of threat can evolve and how severe the difficulties in understanding and subduing it can be.

The collapse of the Siad Barre regime, in 1991, resulted in the creation of a period of instability in Somalia. Between 1991 and 1995 the considerable maritime traffic transiting through the important lanes of passage off the Horn of Africa was effectively monitored by the naval task force associated with the United Nations peacekeeping operations in Somalia (UNOSOM I and II). These routes were historically used for all shipping movements towards the Gulf of Aden and the Red Sea, and in most cases ships passed quite close to the Somali coast to achieve a more economical passage.

When the United Nations forces left, in 1995, Somalia had no effective government and was not able to maintain a continuous monitoring of the waters off its coasts, hence it fell into a period of "clan warfare".

The chaotic situation ashore and the damage inflicted to the economy and the infrastructure of the country had a very important effect on the seas.

For generations, offshore fishing represented the only regular and significant livelihood for many coastal villages, communities and families. These fishermen depended entirely on the rich fishing off the Somali coast and they operated from small dhows, boats or wooden canoes, or more recently from modern small motorized fiberglass skiffs. They used traditional techniques, mainly using nets to gather their catch and then off-loading the take for sale upon returning to shore.

In 1995 the Somali region found itself exposed to uncontrolled foreign exploitation, as large commercial fishing vessels started crossing and working off the coast of Somalia, very often also within the country's territorial waters, interfering with traditional domestic fishing areas along the shoreline.

The presence of these large-scale fishing vessels significantly impacted the activities of the boats constituting the local fishing fleet, and placed the coastal subsistence and the local economy based on traditional fishing practices in danger. The piracy problem in the area emerged from this context.

Many former fishermen became pirates, and armed themselves with weapons which were easily available due to the fighting among the Somali clans in their struggle for power.

The Somali waters, with a coastline of more than 2.000 miles, soon became one of the world's most dangerous areas for piracy.

When clashes between local fishermen and commercial fishing vessels began, no central government existed to set the whole problem in a national context, with legal agreements and power to effectively enforce legality.

No clan or presumptive central authority intervened to prevent an uncontrolled escalation, and the initially legitimate effort to limit the foreign exploitation of Somali resources turned into the modern Piracy "business".

As their illicit activities proved to be lucrative, pirates progressively increased the range of their activities, and when they made their leap to the high seas, they started looking for much larger commercial vessels as victims.

The skiffs employed were the same small fiberglass motorized boats that are extremely common along the coastline, and with which all fishermen – among whom pirates were recruited – were very familiar.

They naturally still used the traditional tools available to Somali fishermen, but with some tactical refinement.

By 2004 the pirates began to use multiple skiffs in their work. A larger skiff provided room for the provisions of food and water needed to sustain the pirate crew for up to two weeks and at a range of two hundred nautical miles, just as a fishing party would do. It could also provide the means and space for storing and repairing fishing nets, mirroring the more traditional occupation and habits of the local crews.

In this way, while looking for their targets, these fishermen-turned-pirates appeared no different from the majority of the local maritime presence, and a patrol vessel or a potential prey could hardly notice the difference at distance between a pirate and a legitimate fisherman.

In response to the increased threat of piracy off the Somali coast, on the 2nd of June 2008 the UN Security Council adopted Resolution 1816, observing that Somalia "lacks the capacity to interdict pirates or patrol and secure its territorial waters". This resolution authorized, for an initial period of six months then extended, foreign naval vessels to enter Somali territorial waters and to use "all necessary means" to repress acts of piracy and armed robbery at sea, consistent with existing and relevant provisions of international law.

The resolution, and the consequent international effort against piracy, resulted in a progressive reduction of the presence of pirates and in the decrease of the number of successful attacks to commercial maritime freight, but it did not address the underlying factors that generated the phenomenon. In looking for a solution, it is necessary to recall the history of the problem: the Somali situation emerged from the inability of local fishermen to preserve their resources and livelihood. Thus, the long-term solution to this problem should go beyond traditional coalitions, formal alliances and the defeat of individual targets, as the phenomenon of piracy cannot be defeated at sea.

Naval vessels patrolling the Gulf of Aden, the Somali Basin and the Indian Ocean, while being effective in ensuring the protection of merchant vessels transiting the area of high piracy risk, address the symptoms but not the cause. And History suggests that in naval

operations as well as in international or regional disputes, prosperity and rule of law cannot be injected "surgically", but it is rather necessary to create the social, cultural and economic conditions for an enduring safe and secure environment.

It is of high importance to remember at this point, what the Secretary General of IMO, Mr. Koji Seikimizu, said once more in March 2013 regarding the current counter piracy situation:

"We must be thankful for the efforts of the international naval forces and their robust operations and to the shipping industry for the increasing adherence to BMP and for embracing a culture of heightened security. But it is too early to claim victory and whilst the navies and BMP continue to suppress the pirate successes at sea, we must increase our efforts to address the roots of the problem in Somalia, and create better maritime security capacity in the region."

This basically means that, we have partially fulfilled our mission but the threat is still there. Needless to mention that "armed robbery at sea" is still considered a high threat for the international shipping community in the Western part of Africa, where the phenomenon is in a different format and exceedingly more fierce actions are taking place.

In the end, the solution to piracy is as local as the lost livelihood of a former fisherman recruited as a pirate in a camp along the Somali coast, and as global as the common interest of the International Community and of all littoral countries to see their merchant vessels sail the oceans safely to ensure a flourishing commerce.

If we can see the coexistence of these two aspects of the problem and act accordingly, the region will be able to find once again both the necessary rule of law and an effective way to grant its own sustainment.

In this scenario, as professional sailors serving in the NATO Maritime Interdiction Operational Training Center, we are strongly committed and aware of our role, being proud to effectively contribute to the international effort against piracy by delivering valuable dedicated training to NATO and non-NATO units designated to participate to the counter-piracy operations in the Gulf of Aden and the Somali Basin, such as the NATO-led operation "Ocean Shield" and the EU-led operation "Atlanta", and additionally contributing to the Regional Capacity Building efforts of IMO, by providing specific training to military and law enforcement personnel of the Djibouti Code of Conduct Countries.

Commodore Ioannis Pavlopoulos *was born in the city of Thessaloniki (northern Greece) on April 13th, 1961. He graduated the Hellenic Naval Academy and was commissioned as Ensign in June 1983.*

His specialties are Officer of Navy Special Forces' and Communication Officer. He attended the basic training course of the Underwater Demolition School, the static line and free-falling parachuting course of the Army, unconventional warfare in the U.S. and several NATO SoF courses in Germany.

He served on several types of warships (destroyers, guided missile patrol boats, landing crafts) as a Communication and Navigation Officer and as an XO onboard DDG KIMON.

He spent most of his sea carrier onboard amphibious ships. He was assigned as Commanding Officer on the HS RODOS (LST type) from 1995 to 1997 and as Operations Staff Officer in the Landing Fleet Command from 1999 to 2000. From August 2005 to September 2006 he assumed the duties of Commanding Officer on HS SAMOS.

From 1989 to 1994 he served in the Navy's Special Forces as an operational team leader and staff officer. He accomplished several missions (boarding officer during IRAQ crises in 1990 in the Red Sea, during UN sanctions imposed on Former Yugoslavia in the Adriatic Sea in the years 1992 and 1994, security team leader of ex-USSR President Michael Gorbachov and the Chiefs of the US Armed Forces in 1993).

From September 2006 till July 2008 he was assigned as Commandant of the Navy's Special Forces.

In 1993 he served for six months under the United Nations flag in northern IRAQ as a UN guard team leader.

From 1997 to 1999 he served in the Naval Academy as Director/Major of the Naval Cadets' battalion.

After his graduation from the Naval War College in 2000 he served as Head of the Current Operations Planning Department (J3) in the Hellenic Navy General Staff (2000 to 2002); Naval Attaché of the Embassy of Greece in Paris/France (2002-2005), Deputy Director in the Naval Staff Officers' Course School (2009-2010) and Director of the Athens Multinational Sealift Coordination Center (2010-2012).

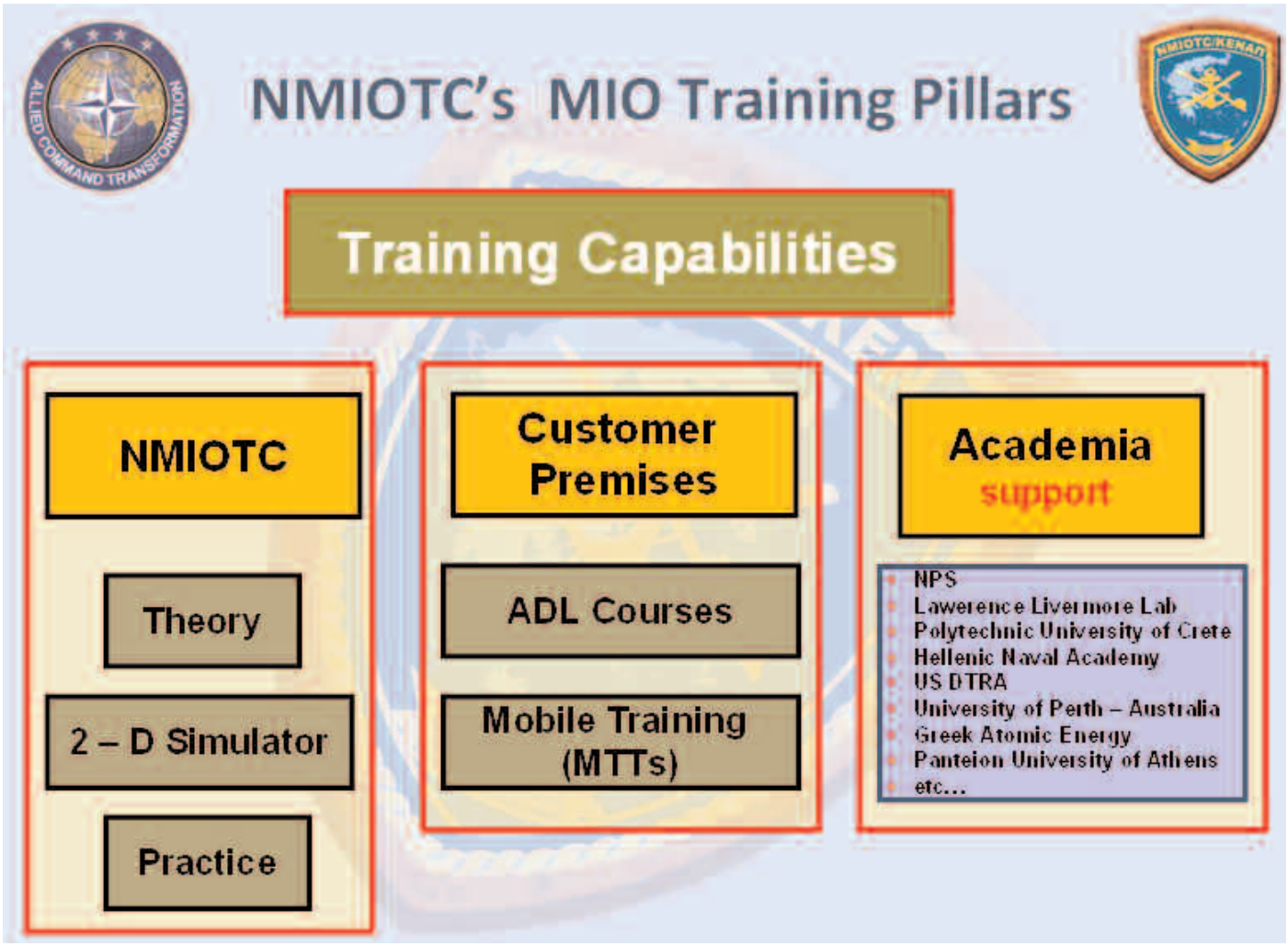
Being promoted at the rank of Commodore the 1st of August 2012, he has been assigned as Commandant of the NMIOTC on the 28th of August 2012.

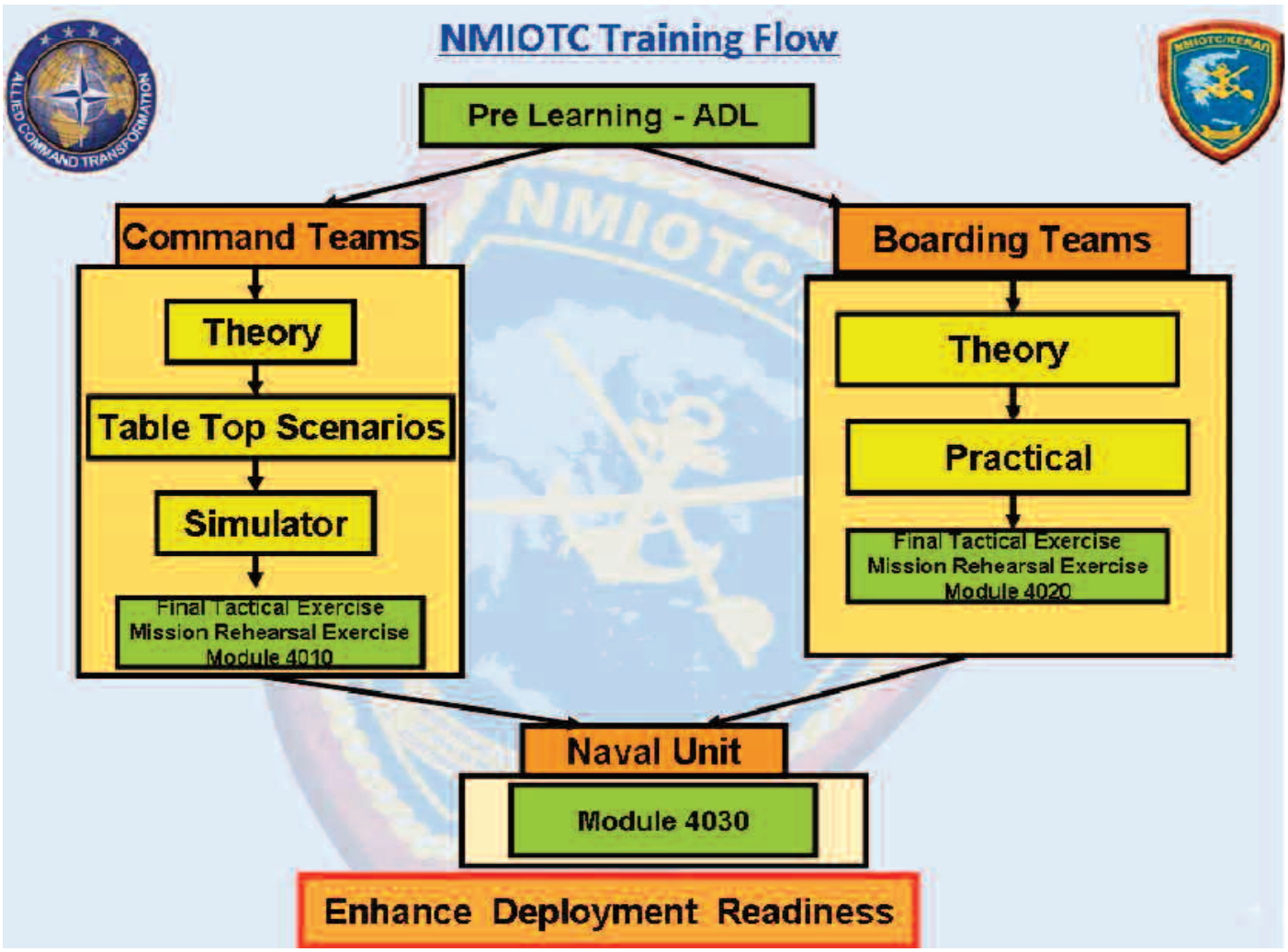
He bears the Gold Cross Phoenix battalion, the Peace Operations' medal (3 ops), the Military Merit, the Successful Command medals and the Gold Cross of Honor battalion.

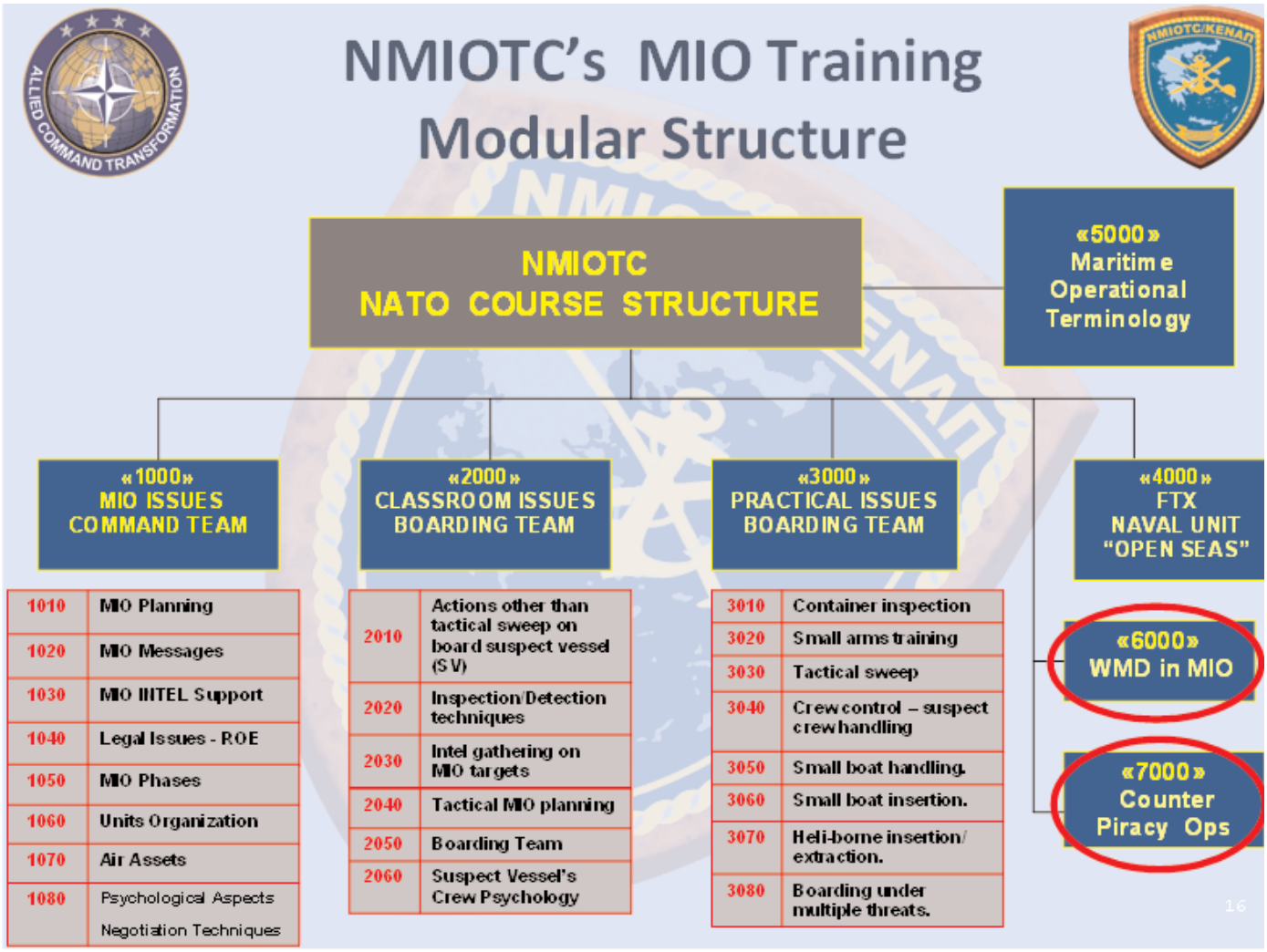
The States of Saudi Arabia and Kuwait have also decorated him for his participation in the operations for the liberation of Kuwait. He has also been decorated with the Peace Operations medal of the United Nations and the expert rifle-shooting award of the US ARMY.

On June 2006, he was decorated by the French Republic as "Chevalier dans l'Ordre National du Merite" for his appointment as Naval Attaché of Greece in France.

Commodore Ioannis Pavlopoulos HN speaks English and French. He is married, father of two children.


NMIOTC's MIO Training Pillars
Training Capabilities
NMIOTC
Theory
2 – D Simulator
Practice
Customer Premises
ADL Courses
Mobile Training (MTTs)
Academia support
NPS
Lawerence Livermore Lab
Polytechnic University of Crete
Hellenic Naval Academy
US DTRA
University of Perth – Australia
Greek Atomic Energy
Panteion University of Athens
etc...


NMIOTC Training Flow
Pre Learning - ADL
Command Teams
Theory
Table Top Scenarios
Simulator
Final Tactical Exercise
Mission Rehearsal Exercise
Module 4010
Boarding Teams
Theory
Practical
Final Tactical Exercise
Mission Rehearsal Exercise
Module 4020
Naval Unit
Module 4030
Enhance Deployment Readiness



NMIOTC's training is following ACT's training guidelines and principles. It is using the three key words that ACT has implemented in the training concepts...

Effective
Efficient and
Affordable

Training is **effective** by having modular structure, providing ad-hoc and on request - just in time training, executing specific training analysis for each target audience, conducting adjustable training levels on a case by case basis, conducting tailored and customized training iaw operational needs and finally by delivering a mission rehearsal training.

It is **efficient** as it follows NATO standards, it is being enriched with subject matter experts / specialized trainers/ experienced lecturers, by implementing day and night training scenarios and finally by having strong co-operations with other Institutions/Agencies and the Academia.

It is **affordable** primarily because it is at very low cost, students pay only for incremental costs like simunition and helicopter usage and finally because NMIOTC has the ability of deploying its Specialized MIO Mobile Training Teams (MTT) to customer's premises at very low cost.

NMIOTC Training Facilities

NMIOTC MIO Simulator

Simulation for MIO Scenarios Related to current NATO Operations

NMIOTC's instructors (in blue) teaching counter piracy techniques to a MIO boarding team. Training is being executed with NMIOTC's RHIBs in Souda Bay conducting realistic and mission reahearsal scenarios.

Real pirate whaler and skiff
are used for practical small vessel investigation training. NMIOTC extensively apply the model of
realistic mission rehearsal
before deployment.

Recently NMIOTC's training support team installed smoke, noise and background noise generators inside training ship "HS Aris" in order to make training more realistic and effective for the students creating a real war gaming zone environment.

Pictures from the monitors of the CCTV system on board NMIOTC's training ship "HS Aris", where students actions are being recorded and played back after training in post evaluation training briefs. These pictures show the material collected from 31 microcameras in hidden places inside the training ship.

VIP VISITS GALERY

Visit of the ACT Chief of Staff, Vice Admiral Tony Johnstone-Burt OBE GBR (N)
8 April 2013

Visit of the DCOM MARCOM
Vice Admiral Christian Canova FRA (N)
31 May 2013

Visit of the Commander in Chief of the Hellenic Fleet
Vice Admiral Panagiotis Litsas HN
11 April 2013

Visit of the Chief of Romanian National Defence General Staff
Lieutenant General Stefan Danila ROM (AF)
13 June 2013

Visit of the NATO SNMG2 Commander
Rear Admiral Eugenio Diaz Del Rio ESP (N))
12 June 2013

VIP VISITS

Visit of NATO FORACS Steering Committee
15 May 2013

Visit of Operation ATALANTA Force Commander
Commodore Jorge Manuel Novo Palma POR (N)
27 March 2013

Visit of theNATO SNMG1 Commander
Rear Admiral (L.H.) Georg W. von Maltzan GER (N)
27 May 2013

Visit of theVice Chief of HNDGS
Vice Admiral Alexandros Theodosiou GRC (N)
19 April 2013

Visit of the US CAPSTONE Class 13-2 SWA
of National Defense University
19 February 2013

Visit of the German Defence Attaché in Greece
Colonel Norbert Dreshke GER (A)
28 May 2013

VIP VISITS

Visit ofthe Haifa Naval Base Commander
Rear Admiral Eli Sharvit (ISN))
08 March 2013

Visit of the British Defence Attaché in Greece
Colonel Anthony Morphet GBR
08 April 2013

Visit of the American Hellenic Institute
16th May 2013

Visit of the head of the Counter Piracy Project Implementation Unit (PIU) of IMO,
Mr Philip Holihead
5 July 2013

Courtesy Viisit of the SSN SAPHIR Commanding Officer
4 February 2013

Courtesy Viisit of the FS DE PUI DU LOME Commanding Officer
3 July 2013

JCTD C3PO
AN EXAMPLE OF SMART DEFENSE AT THE SERVICE OF THE BOARDERS

by Cdr Giovanni Antonio Tedeschini ITA(N)

Piracy is one of the most ancient threats to sea lines of communication and the first crime in the history for which the international jurisdiction was established.

There are examples of pirates even in the classic period, ancient Greeks, Romans and Etruscans but it is later in the 17th Century when the principle of considering the attack of a merchant to another merchant in the high sea as an International Crime was commonly and authoritatively stated. Pirates of the seas were considered enemies of the Humanity and any Nation had the jurisdiction to intervene with the use of force in order to defeat them. This principle is now Customary Law and it is regulated by the International Convention of the Law of the Sea of Montego Bay 1982. During the last ten years maritime piracy has tripled in intensity and affects wider and wider areas, so the attention of the international community of nations has been attracted again, especially in the Horn of Africa (HOA) which has become the biggest concern and case study for Maritime Security.

In HOA multiple maritime operations are in force and multiple naval formations, belonging to different organizations, are operating in the same maritime areawith similar counter piracy / counter terrorism missions:

- CMF (Combined Maritime Force under the lead of US Central Commad)
- OOS (Operation Ocean Shield under the lead of NATO Maritime Command)
- Operation Atalanta (under the lead of European Union Maritime Schipping Centre Horn of Africa)
- Russian Republic counter piracy maritime mission;
- Chinese Republic counter piracy maritime mission;

An average of 40 naval units is deployed in the high seas in front of HOA.

Since the 17th Century civilization and Human Rights have gone a long way forward and there is the need to grant a fair trial to pirates, evidence collection, biometrics and information sharing have a crucial role. A brilliant study on the maritime piracy in the Horn of Africa was run in 2010 by NATO Joint Lessons Learnt Centre, of Monsanto Portugal. JALLC analysts spread

around the globe, from the maritime headquarters in northern Europe and Eastern America to operational centers in Bahrain and Eastern Africa and moreover visiting Naval Units and collecting a single astonishing result.

In the age of global communication, crime evidences and biometrics are very difficult to share. They are not shared with sufficient efficiency and the whole success of the mission is affected by this issue. The reason lays the different status and the different security policies which are in force in the many organizations involved.

The challenge to address this issue was engaged by the Joint Capability Technology Demonstration (JCTD), a small agile team of experts in technology based Tampa Florida within the military framework of US Central Command.

The out of the box idea is based on the principle that boarding teams collect raw information and raw information, before it is not processed and correlated is, by definition, unclassified.

JCTD has created a information collection and sharing system in which the sailors of the boarding teams are the main users both as data input and data extraction. A pretty neat situation, which allow instant data sharing, at the lowest thinkable level and among multinational boarding teams, as qualified users, law enforcement people of the area of operations. Snapshots of single events in time and space are shared globally. No judgments but simple facts, positions and verified identities.

On board Training Ship ARIS

Since they presented their idea during NMIOTC annual conference 2011, we immediately recognized the great value in it and offered our support as subject matter experts in maritime interdiction operations, which is the main toolset with which is addressed counter piracy in HOA. After the developing phase NMIOTC contributed to the operational evaluation and the military utility assessment of the system.

Scenario Walkthrough

NMIOTC consider C3PO a great leap forward in the effectiveness of maritime security multinational operations. It is particularly impressive that all this is achieved at very low cost. No expensive equipment is necessary to be part of the network. A cloud database, a web based software, which is reachable by a standard web browser (e.g. Chrome or Explorer) by the boarding teams at sea, with nothing more than a simple personal computer and internet. Identity verification loops are embedded in the system and warnings on specific persons show up with the colors of a traffic light next to the names of the crew members of the merchant vessel.

In the concept of making C3PO operational NMIOTC stands ready to provide practical training on the use of C3PO to all NATO and Partners boarding teams.

A more detailed article is published at page16 of this Issue.

Commander G.A.Tedeschini ITA(N), is the NMIOTC Director of Training Support. Email your comments to tedeschinig@nmiotc.grc.nato.int

JCTD C3PO MILITARY UTILITY ASSESSMENT

by Mr Eric Follstad, US CENTCOM Science and Technology

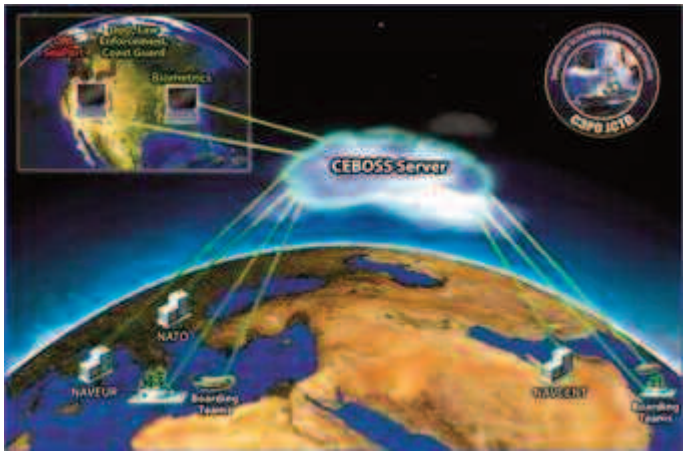
"Employ your time in improving yourself by other men's writings, so that you shall gain easily what others have labored hard for."

~ Socrates 470–399 BC

We have all heard—and presumably used—various clichés and noble parables regarding individual and collective pursuits that are believed to ensure the achievement of stated goals. Sayings such as "Hard work pays off," "Keep your nose to the grindstone," "No pain, no gain," and "If at first you don't succeed….try, try again" are all meant to inspire and elicit a belief that if one will just work harder and put in additional time, success can be assured. Supposedly, failure to achieve stated goals can then be defended since it was not due to a lack of effort. There is no argument that time and effort play a distinct role in the achievement of goals; however, it can also be argued that in order for work to be applied in the manner and form necessary for the achieving of goals, the proper tool for the job must be an integral component of performing the task at hand.

The need for improved tools and processes governing boarding operations pertaining to maritime interdiction operations (MIO) recently brought assessment activities to the NMIOTC. The Combined End-To-End Expanded Maritime Interdiction Operations Performance Optimization (C3PO) Joint Capability Technology Demonstration (JCTD) Military Utility Assessment (MUA) conducted from 2 to 11 April 2013 at NMIOTC was an effort to equip MIO forces with the right tools for the job and to perform more effective operations.

In the most simplistic terms, MIO is used to facilitatauthorized maritime security operations (MSO) in upport of each country's national interests or pursuant to an internationally recognized mandate. Today, thousands of MIO operations have been and continue to be conducted by a variety of naval forces, host nation and/or regional law enforcement agencies, and other recognized and authorized agencies assigned MSO missions. Expanded MIO (EMIO) has been developed by the U.S. Department of Defense (DoD) to deter, degrade, and prevent attacks against the U.S. and its allies, and involves interception of targeted personnel or material that poses an imminent threat.



C3PO Operational View

Over the years, naval forces and law enforcement agencies have conducted tens of thousands of boardings. Unfortunately, most of the data created from past boardings is not available to support today's global MIO mission planning and operations. As you read this article, decisions to board suspect vessels are being made by ships' commanding officers or MIO commanders with little to no background or historical boarding information regarding the vessel about to be boarded. Currently, this hail or hail-and-board decision is fraught with unnecessary risk and uncertainty that could be reduced [eliminated] simply by having access to previously documented reports regarding past activities of the ship and crew under interrogation. This inability of the MIO commander, commanding officer, and/or

boarding officer to leverage historical boarding data, regardless of source, to make the best operationally informed decision, is summarized by the operational problem statements below:

- U.S. and Coalition boarding teams are unable to share actionable maritime interdiction information in a timely manner, resulting in missed interdiction opportunities, unnecessary boarding events, and the potential failure to detain persons of interest or confiscate suspected contraband.

- Boarding teams lack a common repository to consolidate and share MIO data. Once boarding data is collected, it usually remains in theater or in combined systems, which inhibits efficient analysis and processing by US and Coalition partners.

CEBOSS Training

CAPABILITY DEVELOPMENT

In developing the necessary toolsets to address the operational problem, thresholds were defined, and it was determined that the capability demonstrated must be able to perform the following tasks:

- Share past boarding data between participating navies

  o Simple web-based architecture utilizing commercial browsers

  o Globally accessible content utilizing basic Internet access

- Support pre-mission planning

  o Access historical boarding reports and imagery with the click of a mouse

- Provide near-real-time biometric verification

  o Faster response from the identity management databases

- Consolidate and share boarding data

  o Create boarding reports, upload images, and export to after action reviews

  o Support end-users and decision-makers

Based on over 18 months' worth of consultation, development, iterative testing, exercising, and experimentation with US, NATO, and other national representatives, the C3PO Enterprise Boarding Operations Support System (CEBOSS) software package was created. Hosted on servers located in the US (and accessible worldwide), CEBOSS provides the EMIO toolsets that previously were not available for forces executing MIO operations. With the implementation of CEBOSS, shipboard capabilities for EMIO planning now include the following:

- Unclassified web-based user interface accessible anywhere

- Searchable database of historical boarding information

- Automated data exchange with biometric identity management databases

- Boarding report templates

- Information sharing among partners and organizations

On Board Traning Ship ARIS

Even with the 18-month C3PO collaborative development effort leading to the creation of the CEBOSS capability, there remained key questions that were unanswered pertaining to the overall concept behind the C3PO project: Is the CEBOSS capability operationally relevant in supporting current and future

MS0, and does it have the military utility that commanding and boarding officers desire to have? These questions were unanswered until now.

DETERMINING THE MILITARY UTILITY

hort of actual combat operations, an acceptable and widely used method to evaluate a new capability or capability under development is to utilize current and qualified operators (users) on actual systems with a supporting concept of operations (CONOPS) and corresponding tactics, techniques, and procedures (TTP) in an operationally realistic setting with lifelike scenarios. This was the premise for assessing the military utility of CEBOSS.

Evidence Collection

Leveraging the intellectual capital of the NMIOTC staff, US Naval Forces Central Command (NAVCENT), and the US Coast Guard as well as NATO subject matter experts from Germany and the Hellenic Navy, eight scenarios based on actual boardings were created along with more than 700 appropriate props, artifacts, identification documentation, and related paraphernalia that are typically collected and documented during boarding operations. Through the use of role players and surrogate agents, vessel hailing events and compliant boarding operations were planned and executed utilizing the NMIOTC headquarters and the training ship ARIS.

Even though current MIO CONOPS and TTPs have been standardized and agreed upon by US and NATO organizations, there was a desire to evaluate potential differences between US and NATO use of CEBOSS as it pertained to mission planning, execution, and post-event reporting. Since CEBOSS was envisioned to be used and accessed worldwide by an untold number of potential users, there needed to be consideration regarding how [potentially] other countries and users would view and use the CEBOSS functionality and user interfaces. To evaluate these differences, the assessment utilized two teams: a US-only manned team and a NATO team. The US team was comprised of Visit, Board, Search, and Seizure (VBSS) members and analysts from USNAVCENT/US Coast Guard, and the NATO team was comprised of members from NMIOTC. Of note during the course of the assessment, several software changes were recommended in an effort to better support differences in NATO and US planning methodologies. Thus, the decision to utilize both NATO and US boarding teams proved to be a valuable assessment approach.

The basic script for the execution of the assessment was to initiate planning utilizing many of the inherent search features maintained within the CEBOSS software. Role players utilized photo teams to initiate visual identification of suspect vessels. Based on feedback from these teams, visual characteristics of the vessel allowed shipboard boarding teams the ability to search the CEBOSS system against a variety of vessel criteria such as vessel name, color, and distinguishing features. If a match and positive identification were found, critical past boarding information was immediately available to assist with mission planning. Based on reviewing and analyzing past boarding data and contrasted with the current operational situation, a decision to hail the vessel was then made. The boarding officer could then utilize CEBOSS to prepare the actual hail scripts, develop a set of questions for the vessel's crew, and—based on responses from the suspect crew—verify information provided by the crew against past boarding data.

Biometric Collection

In support of pre-boarding preparations, boarding teams extracted historical boarding information from CEBOSS to support mission planning. Data available assisted in determining suspect crew composition, vessel

cargo, past destinations, and potential tripwires for use during crew interviews as well as a myriad of other data for use during boarding or questioning.

During the actual boarding event, boarding teams had the ability to maintain an ongoing narrative with the ship to conduct CEBOSS inquiries and data exchange as needed to answer/verify/dispute issues that arose during engagement with the crew under interrogation. This served to empower the boarding team by affording them the ability to corroborate information from past boardings while the boarding team was still on the boarded ship. Not only did CEBOSS provide near-real-time access to historical boarding data to better affect pre-boarding planning activities, CEBOSS provided live connectivity to biometric identity management databases. This critical operational attribute allowed boarding teams—via a handheld biometric device—to capture, upload, transmit, and quickly receive biometric responses regarding personnel encountered during boarding operations. It also allowed boarding teams the ability to anticipate and verify crewmembers who may be onboard a suspect vessel based on data entered into CEBOSS from previous boardings. This is a critical capability that addresses past issues seen with releasing vessels with persons of interest onboard, due to lack of identity verification during actual boarding events.

Boarding Report

Another critical issue identified by MIO personnel during the development of the C3PO JCTD involved the generation of reports. Report generation following a boarding can be laborious, time consuming, mentally exhausting, and a distraction from primary duties. To remedy this situation CEBOSS employs an automatic report generation template that streamlines and automates the after-action report (AAR) in accordance with current US and NATO standards. These templates can be easily updated and refreshed to account for new standards and reporting requirements. Users enjoyed the ability to populate the CEBOSS database as the boarding was being executed, finish the data entry shortly after returning to the ship, export the data into pre-defined report templates, and publish their boarding report for worldwide access and review with just the click of a mouse. The capability that CEBOSS provided to "work smarter, not harder" was heralded as a resounding success by boarding officers.

The JCTD C3PO Military Utility Assessment Joint Tean on board Training Sip ARIS

WARFIGHTERS' PERSPECTIVES AND WAY AHEAD

During the course of assessment planning, daily scenario mission planning, debriefings, and the post-MUA hotwash, there were universal agreements that this capability is needed. Comments from Commanding Officers, Boarding Officers, VBSS teams, trainers, and NMIOTC supporting staff have been positive with affirmation that the CEBOSS system addresses key elements of the operational need. Given CEBOSS's first introduction to the user community during the MUA, there were several recommendations to improve TTPs and some suggestions for technology interface improvements regarding large data file transfer inefficiencies. The biometrics verification process and corresponding TTPs were highly praised and fully support recently approved NATO biometrics policies. Of note was the desire on the part of NMIOTC to immediately start training on the system for operational employment. A final report of military utility will be co-signed by the US Central Command and the US European Command and released in August 2013.

For additional information regarding the C3PO JCTD and future activities, contact Mr. Mikel Awad at US Central Command, phone: (813) 529-8113 e-Mail: awadmy@centcom.mil

ADVANCED SITUATIONAL AWARENESS TRAINING (ASAT) ®

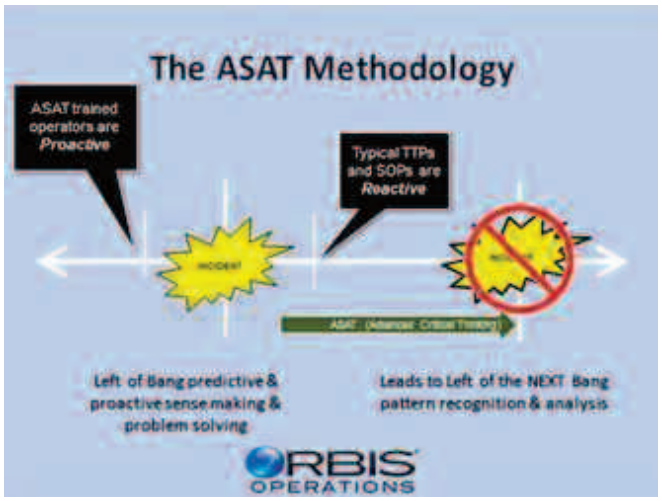
Predictive and Proactive Sense to combat threats across the contemporary operating environment

by Mr Martin Woolley, Orbis Operations LLC

The NATO Allied Command Transformation (ACT) HQ in Norfolk, together with the NMIOTC, has recognized that naval boarding teams are critical enablers in supporting Attack the Network (AtN) operations. In addition to collecting traditional boarding data, boarding teams have the potential to collect vital forensic, biometric, material and technical data that can be exploited to support countering threat networks. As stated in ATP 71, evidence gathering is a critical part of Maritime Interdiction Operations (MIO). Whether in support of an approved NATO operation or during day-to-day operations in support of National tasking, boarding teams are exposed to valuable information and intelligence that can be used to support maritime target development for a specific operation and/or support a broader counter threat network effort by disseminating essential information used to attack threat networks.

For a number of years the US Military has been using Advanced Situational Awareness Training (ASAT®) to enable early detection of potential threats by use of Human Behaviour Pattern Recognition and Analysis (HBPR&A). A second course aimed at tackling the serious threat from "green on blue" attacks has developed and is named Insider Threat Situational Awareness Training (IT SAT ☒). This latter course is currently being run in Afghanistan for coalition forces.

Maritime ASAT®



The ASAT methodology

Influenced by the successes of ASAT®, the NATO Maritime Interdiction Operational Training Centre (NMIOTC) hosted a "pilot" Maritime ASAT (M-ASAT) from 8 to 12 July this year. The aim of this M-ASAT

course was to produce students who are motivated, agile, and adaptive, and who can use advanced critical thinking skills to apply ASAT® principles to situations in order to enhance and assist boarding operations, non-combatant evacuation operations, and mission planning. Following this pilot course, NATO is expecting to develop a project plan that will require a two year period to develop a programme that delivers trained M-ASAT personnel for the NMIOTC and NATO. The advantages that such training will provide NATO maritime personnel are as follows:

Maritime Interdiction Operations (MIO)

a. Improved operational environment awareness and understanding.

b. Increased survivability when deployed both inside and outside of the perimeter wire, when performing Non-Combatant Evacuation Operations, and whilst conducting boarding operations

c. Improved understanding and application of HBPR&A skills.

d. Improved tactical reporting.

e. More accurate network analysis to facilitate reporting and targeting.

ASAT®

This unique training has been successfully implemented in both Iraq and Afghanistan. It is a scientifically validated and battle tested training program that allows individuals to cognitively make sense of highly complex environments. ASAT® is an experiential based, predictive, tactical problem solving system that improves with each environmental exposure. All people, events, and vehicles give off certain signals when they are measured against context, relevance, and the societal baseline. These 'signals' are read as 'anomalies.' Establishing a baseline, detecting and then acting on such anomalies is the essence of ASAT®. The course also provides detailed instruction on the methods to understand and interpret human behavior and then interpret the signals that are given by humans either as individuals or as part of a group.

ASAT® imparts individuals with enhanced cognitive tools for the detection of potential threats in any situation or context, thereby providing the skills and ability to detect, observe, and engage criminals, terrorists, insurgents, fugitives, their networks, and prevent evolving threats.

Such skills provide personnel with predictive, proactive sense making and problem solving capabilities, thereby enabling action to be taken prior to incidents occurring.

ASAT is an enduring skill set that is applicable across culture or geography and can be applied to any type of operation (For example Irregular Warfare, Law Enforcement, Maritime Board and Search, Customs and Village Stability Operations). This training combines classroom instruction and practical training scenarios, it is a non-materialistic capability that complements and enhances existing Standing Operating Procedures/Tactics, Techniques and Procedures.

Interogation

Orbis' HBPR&A courses are being taught to a wide audience, including:

a. Ongoing courses at the US Army Maneuver Centre of Excellence (MCOE) at Fort Benning.

b. A wide variety of US Army Mobile Training Team events to include training every Security Force Assistance Team headed to Afghanistan.

c. US Naval Special Warfare Group and Naval Special Warfare Command.

d. US and NATO Teams deployed in Afghanistan

(Insider Threat ASAT®).

e. US Special Operations Command.

f. NATO (A Countering IED Course and a developing Maritime Course).

Numerous compelling accolades exist regarding the effectiveness of ASAT®. Three examples are as follows:

a. Sergeant from Task Force Paladin: "This was the most valuable training we have received in the seven months we have been deployed to Afghanistan, a real eye opener".

b. ASAT® Course student (Officer). ASAT® trained personnel are also able to be proactive instead of reactive, giving them relative superiority in any situation."

c. Commanding Officer of a US Navy Seal Squadron: "ASAT® enables operators to short-circuit threats before they harm friendly forces or public perception. The training enables individual shooters to reduce civilian casualties and collateral damage from preventable firefights. ASAT® trained operators are also able to be proactive instead of reactive, giving them relative superiority in any situation."

IT SAT ☒

ASAT® is utilized when conducting Operations outside of the Operating Base. IT SAT ☒ is utilized when personnel are inside of the Base. IT SAT ☒ is based on the fundamentals of ASAT® and therefore the brief description of ASAT® (above) applies equally to IT SAT ☒. The Purpose, Method and End State for IT SAT ☒ are as follows:

a. Purpose:

I. Close the capability gap permitting "green on blue attacks" by arming individual coalition members with the HBPR&A skills to identify an insider threat and provide the tools for action within a decision making framework.

II. Provide coalition members the gift of time and space to identify a developing threat and replace hyper vigilance with "informed" awareness.

b. Method:

I. Deliver practical, skills oriented, Subject Matter Expert (SME) delivered training and education in HBPR&A.

II. Training is scalable and customized to each type of unit to fit unique challenges and situations.

III. Instruction is interactive and scenario driven.

c. End State:

I. The most exposed elements of the force are trained in HBPR&A to identify the insider threat and linked to a decision making framework.

II. Foster a climate of "informed awareness" to mitigate the risk to force at the tactical level for coalition units operating in a partnered environment and reduce risk to mission at the operational level by closing the capability gap.

Further information regarding ASAT®. IT SAT ☒ and M-ASAT can be obtained from Orbis Operations LLC. Comments canbe sent to Mr Martin Woolley : m.woolley@orbisops.com

NON-LETHAL CAPABILITIES IN MARITIME SECURITY

By Dr Ron Kessel,NATO Centre for Maritime Research and Experimentation (CMRE)

Much can be said about the term "non-lethal". It generally refers to military response against a target when there no intention of harming associated persons in any lasting way. The term is used in connection with security operations outside of combat, for operations such as force protection, critical infrastructure protection, maritime interdiction operations, counter terrorism, ensuring delivery of humanitarian aid amid conflict, and so forth. "Non-lethal capabilities" then draws a clear distinction from the military's core capabilities for delivering lethal force during combat.

Operating a patrol boat

In non-lethal capabilities the intent is to purposefully engage a target without delivering any lasting harm, which is fundamental to the NATO definition of "non-lethal capabilities" [ref xx]. In security operations, as in self-protection generally, one typically has a duty to warn, to prove hostile intent, and use proportional force, where the utility of non-lethal capabilities is clear. Non-lethal capabilities reduce the risk of harm to persons who may be innocently unaware of security operations, and reduce the risk of post-event litigation against security forces. They fill the response spectrum between "shouting and shooting", as some have said, which ultimately supports larger strategic objectives in modern conflict.

Purposeful non-lethal engagement generally takes two forms: 1) unambiguous warning in a security zone where non-cooperation in the target may be interpreted as hostile intent, legitimizing the escalation of force brought to bear against, perhaps ultimately lethal force; and 2) incapacitation of a target, to suppress or stop its advance, presumably after warnings have been given, as a step in the escalation of force against a non-cooperative target. Clearly some technical means are required for both tasks.

Technologies have been forthcoming, many of which have been examined by the NATO Centre for Maritime Research & Experimentation (CMRE, La Spezia, Italy), especially for use in maritime security, for enforcing security exclusion zones around ships or other maritime infrastructure, against the threat of attack by small boats by underwater intruders, and for stopping small boats.

Among the leading high-readiness technologies considered for countering small-boat threats in ports and harbours are those in the table. These (and many others)

have been exercised individually at the waterside or on board ships, under the controlled conditions needed for performance assessment and the safety of participants. The goal of the exercises is to help transition promising new technologies into capabilities, through independent test and evaluation, the formulation of concepts of use and of corresponding operational requirements. In effect, CMRE provides a test bed where security providers and industry can exercise, experiment, and iterate options, engaging in a process of spiral development between developers, industry, academics, and subject matter experts, military and civilian.

Exercising a running-gear entanglement system

Ideally, one would like to see technologies that could be used selectively for both warning and incapacitation, perhaps by turning up the effect of warning to create some degree of incapacitation in a non-cooperative contact. This broadens the scope of a single technology in escalation of force scenarios.

Both warning and incapacitation are possible to some extent with the optical disruptor cited in the table for instance, whose brilliance can create both a point of attraction in the target's visual field at very long distances (drawing their attention to security forces for speedy awareness and compliance), and a visual dazzling glare that makes it difficult to aim a weapon toward the source of the optical disruptor. CMRE has developed models for predicting the ranges of effectiveness for warning and for visual suppression by optical disruptors under different daylight conditions.

The long-range acoustic loud hailing device, on the other hand, is found to serve only for warning—for delivering audible alarms and messages (shorter distances than optical disruption), but not for incapacitation. For if it occurs at all, incapacitation would only occur very close to the acoustic device itself, where sound levels exceed the threshold of pain, and where they would certainly induce permanent hearing loss, contrary to the non-lethal concept of no lasting harm. Though once described as an acoustic weapon, acoustic devices are now more accurately described by their manufacturers as warning and communication devices—a role they can fill rather well, though with some qualifications of course.

The running-gear entanglement technology cited in the table is an instance of incapacitation rather than warning. It acts with stopping force on the mechanics of the small boat, without physiological effects or harm on its occupants.

These technologies illustrate that, when evaluating any candidate technology for use in non-lethal capabilities more generally, it is necessary to be clear about its concept of use, if it is to warn or to incapacitate. The purpose determines the way the technology must be evaluated and transitioned into capability.

Going somewhat further in non-lethal capability development, given a number of technologies for non-lethal capabilities, there emerges an array of technology-driven options, each with its own concept of use, range of effectiveness, mode of operation, technology demonstration, and so forth. These might be used together for more complete capability and coverage against a range of threats; against small boats, jet skis, and underwater intruders for instance. It is difficult to create a picture of overall capability simply by listing technologies as in Table (xx). And it is more difficult still to validate the overall capability afforded by a number of non-lethal technologies used together in practice, through at-sea experimentation, particularly in light of the risks that close engagements with fast boats present.

Optical disruptor

Given the advances being made in serious gaming using computers, however, it is possible to exercise any number of options together in a virtual exercise. Indeed, the results of many separate at-sea exercises of candidate

non-lethal technologies were used by CMRE to create computer models of each, for use together in real-time, virtual exercises of integrated capability for escalation of force scenarios in maritime security. CMRE's Maritime Tactical Theatre Simulator was used in the Harbour Protection Table-Top Exercise (HPT2E, March 2012, CMRE) as part of NATO's Defence Against Terrorism Programme of Work.

A long-range acoustic loud hailer and optical disruptor

In HPT2E, 30 military and civilian subject-matter experts from 9 NATO nations participated in many fast-paced, free-play engagements in a realistic virtual port, playing the role of security providers in security missions such as the protection of a military vessel exiting a port or of an LNG off-loading facility during times of high alert of terrorist attack. They were equipped with virtual patrol boats, communications, surveillance sensors, and a number of non-lethal response technologies in order to exercise the non-lethal technologies consolidated into maritime escalation of force capability, with the technologies subject to realistic constraints of awareness, communication, time for action, distance of action, and so forth, much as they were found to be in real-world experiments.

Many separate vignettes of engagement were played, half with attackers, and half with only benign but possibly troublesome port traffic. Participants playing defenders had no prior knowledge of the nature or time of security zone challenges (randomized, blind trials). The play of each vignette was followed by a debriefing session with selective replay to review the use of the non-lethal capabilities, from initial decision to engage, to situation resolution.

Simulation

The exercise taught participants about the kinds of candidate technologies that are of high readiness for use in maritime security—about their modes and ranges of operation, aiming and maneuvering requirements, expected effectiveness, nominal costs, and so forth. More importantly, by exercising the technologies in realistic action, participants developed a good appreciation for one technology relative to another when used together—about their complementary nature, for use against different threats, at different ranges, time to effectiveness, with different objectives: warning and incapacitation. Over 80 % of attacks were stopped before the attacker reached his or her objectives, and never were benign but troublesome ship traffic (from teenagers on jet-skis to belligerent fishing vessels) harmed.

Much of the challenge along the transition path of emerging technologies into non-lethal capabilities for maritime security therefore amounts to matching performance to newly-defined operational requirements for new technologies, then integrating several technologies together into capability against a number of threats, and conveying an appreciation for what that overall capability can be under realistic time-speed-distance constraints for close engagements. Progress depends on clear concepts for non-lethal capabilities from the outset.

Ronald T. Kessel currently leads Maritime Security projects at the NATO Centre for Maritime Research and Experimentation (formerly NURC). He has worked closely with industry and on European Commission projects conducting research on response technologies and maritime surveillance.
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COURSES, EXERCISES AND TRAININGS

Norwegian Coastal Rangers
12-24 January 2013

Training of RS SEVEROMORSK
14-18 January 2013

Training of the Hellenic UDT
4-8 Feb 2013

Training of HNLMS DE RUYTER
31 Jan - 01 Feb 2013

COURSES, EXERCISES AND TRAININGS

Training of ITS ZEFFIRO
20-24 May 2013

Training of FS GUEPRATTE
29-30 April 2013

Graduation Ceremony for FS COURBET and Esthonian VPD
8 February 2013

Training of USS NICHOLAS
4 - 7February 2013

Training of HNLMS VAN SPEJIK
23 - 24 May 2013

BIOMETRICS IN NATO MARITIME INTERDICTION OPERATIONS USING AN OLD SCIENCE WITH NEW TECHNOLOGY TO SECURE THE SEAS

By Mr David Wikoff, US EUCOM Biometrics LNO

Maritime Interdiction Operations (MIO) are getting a boost in effectiveness by using an old science with new technology –biometrics.

MILITARY PROBLEM. Boarding teams have the challenge of correctly identifying people onboard vessels. Criminals and terrorists alike use many names and identification documents to easily slip through the cracks of the MIO process. MIO teams unknowingly encounter the same pirate or smuggler multiple times, but he is recorded under different names and not recognized.

This gap hinders intelligence and strengthens the capability of bad actors who exploit such weaknesses to remain anonymous and operate profitably. Biometrics technology dramatically increases the difficulty for adversaries to remain anonymous and it correlates intelligence about a person's biometric signature and many aliases. Commonly insurgents in the Iraq and Afghanistan wars used numerous false names. In one case, an insurgent leader had over 90 false names in multiple databases, but the disparate databases were not synchronized to paint a true picture of the insurgent.

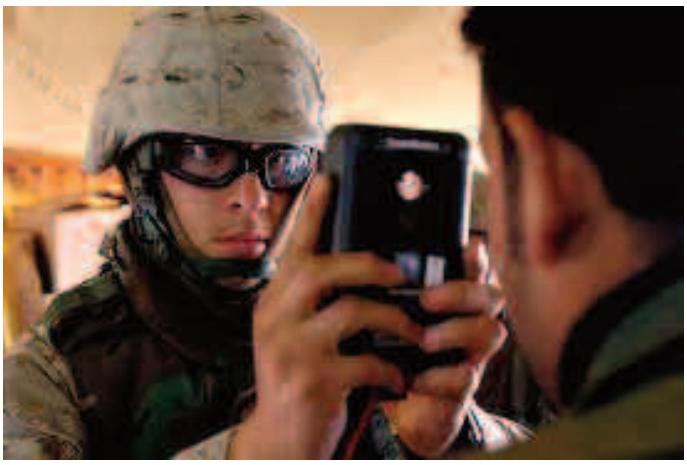
BIOMETRICS DEFINED. So, what is a biometric? Everyone already has an idea of what it is, but they may not recognize it under the term "biometrics." Biometrics is the automated recognition of individuals based on their behavioral and biological characteristics. Biometrics is used for identification or verification in support of a variety of operations or activities. The most commonly recognized examples of biometric signatures are fingerprint topography, Deoxyribonucleic acid (DNA) structure, iris structure and facial topography. Technology is advancing in other biometric signatures that have military usefulness, such as gait, hand-writing, typing and voice dynamics.

BIOMETRIC FUNCTIONS. Biometric capabilities are being used for force protection, criminal prosecution, targeting, sourcing, humanitarian, law enforcement and intelligence purposes. Biometrics technologies are used

by diverse organizations, government and private industry alike. The United Nations initiated a refugee biometric data base; law enforcement has a well known history of using biometrics; Sea World and Disney World use biometric devices at their entry points; and India is biometrically enrolling all residents to better administer government functions such as voting, health care, banking, and welfare.

The SEEK II Biometric Device

The most common identification process simply uses a facial picture. When a policeman examines the photograph on a driver's license he compares it to the owner's facial characteristics. However, identification documents can be falsified and policemen are not generally trained as facial recognition experts who can spot the difference when an individual has gained weight, changed hair style, or shaved a beard. Because physical changes occur frequently, many police officers accept similar physical characteristics, even though they may be uncertain. Biometrics capabilities automate the same identification process used by the police officer, but with phenomenally greater identification accuracy.



Biometrics can also support training missions. When NATO nations train navies such as Somalia's, biometrics can help vet students to ensure nations are not providing training to pirates or nefarious actors.

The Biometrics Process

The Biometric process (figure) is easily implementable, although the details can be challenging.

The phases are being described in the next paragraphs in summary.

PLANNING: In planning you establish the architecture for the rest of the biometrics process. Examples include establishing legal authority to collect biometrics, rules of engagement, architecture, role and responsibility, technical standards, training and equipment resources, and task organizing the capability. These steps ensure effective biometrics operations.

COLLECT: Collection can include live-scan collection at a check point using a biometrics device (e.g. figure 2), processing detainees, or other activity. It can also include forensic processes such as developing latent fingerprints from captured enemy material. And lastly, collection can occur with sharing of biometric holdings such as fingerprint databases or criminal cards.

STORE AND MATCH: Collected biometric records are checked against one or more local or centralized biometrics databases. The biometrics system architecture, as well as sharing caveats and arrangements determine how dissemination and matching is conducted. Biometric matches are compiled into a match record displayed to the collector, or sent from a centralized database to inform the collecting organization and operator at the point of encounter, and may also trigger an analytical process. The sharing is done differently based on sharing agreements that apply in different situations.

ANALYZE: Biometric Enabled Intelligence (BEI) is intelligence information associated to a biometric

The NMIOTC Maritime Biomertics Train the Trainers course

signature or collection. BEI answers the "So what?" or significance of a biometric collection. BEI associated with a biometric record can reveal a person's aliases, link persons of interest to a network, and reveal previous tactics, technique, and procedures. BEI can also indicate threat levels and potential intelligence value.

ACTION: BEI products and results are used by leaders to make decisions at the tactical, operational, and strategic levels. One product of BEI analysis is the Biometrics Enabled Watchlist (BEWL), a collection of biometrics records of persons of interest, for example, wanted by law enforcement, denied access to military benefits such as training or money, or denied access to bases or sensitive areas. If a person on a BEWL changes their identity, they will still match to the BEWL on the device or database and be biometrically identifiable when they enter biometric screening. A BEWL can consist of different categories of interest, and is customizable to support operations.

A custom BEWL is particularly helpful during MIO events because it can identify persons of interest at the point of encounter, or if training a foreign navy, students can be vetted for previous nefarious activities.

SUMMARY: The power of biometrics will continue to expand across a spectrum of NATO operations. Biometrics has garnered major success in the land wars of Iraq and Afghanistan by identifying unknown insider threats, bomb makers, bomb emplacers, and High Value Targets. Biometrics serve as a force multiplier for nations by being able to track transient threats around the world and at the borders of Ally nations. Threats at sea are also transient and as NATO begins to apply biometrics in MIO, NATO will continue to increase stability and security worldwide.

Mr David Wikoff currently has been employed at the US European Command as an LNO from Army TRADOC Capabilities Manager for Biometrics and Forensics.
Email your comments to: david.e.wikoff.ctr@mail.mil

NATO Biometric Doctrine, Policy, and Training *By David Wikoff, USEUCOM BIOMETRICS.*

NATO is developing a biometrics framework to define the use of biometrics capabilities in NATO operations. In 2012, NATO adopted a biometrics policy that supports NATO operations to use biometrics capabilities, clearing the way for the development of a training curriculum that facilitates all NATO nations' biometrics operations. There is currently a NATO working group authoring a Biometrics Standards Agreement (STANAG) that will ensure interoperability across NATO and NATO coalition biometrics operations. An Allied Joint Publication on Biometrics is in development, and will serve to educate the force. NATO Training Centers are also beginning to train contemporary biometric tactics, techniques and procedures. Training is currently being incorporated at the NATO MIOTC, the NATO Counter-Improvised Explosive Device (C-IED) Center of Excellence, and the NATO School, among others. Other NATO Training Centers are scheduled to begin development in 2014. The result of these efforts will be that NATO Nations can field an interoperable capability that will increase effectiveness during combined operations. NATO biometrics developments are managed by the NATO International Staff, Emerging Security Challenges Division (ESCD), and NATO International Military Staff (IMS) Intelligence Directorate.

EFFECTIVE COOPERATION: THE BEDROCK OF ANY SECURITY ARCHITECTURE

By Admiral(ret) P.Chinofotis, CHOD Emeritus, former Deputy Greek Minister of Interior

The future security in an unpredictable world depend upon dynamic changes in the world's geopolitical situation, the evolving nature of threats, constrained resources, severe weather climate events and revolutionary technological development together with its rapid spread.

The ''Strategic Concept for the Defence and Security of The Members of the North Atlantic Treaty Organization" and the Alliance Maritime Strategy delineate ''the modern security environment which contains a broad and evolving set of challenges to the security of NATO's territory and populations".

The Alliance has the framework and a robust structure to meet the requirements of the Strategic Concept and Alliance Maritime Strategy (AMS) as well, in order to secure its strategic interests at any strategic distances. Furthermore, the Alliance been sensible of the geostrategic reality and of the great importance for an effective and efficient cooperation with its international partners, emphasizes in the Strategic Concept, its commitment to prevent crises, manage conflicts and stabilize post-conflict situations, including by working more closely with our international partners, most importantly the United Nations and the European Union".

The evolution of challenges, experience gained by the Alliance's involved players, detailed analyses, studies and conference's conclusions may offer a fresh ground and a food for thought on issues regarding security.

The 2013 NMIOTC's thematic focusing on ''Future Security at Sea" , provides an in depth looking into an environment which can often be used as a hiding place for a lot of illegal actors and their consequent threats, both above and below the surface. The consequent insecurity factors, are not in isolation from the land environment thus reducing the barriers of security and its basic parameters. In this context, certain threats to security could arise like:

- proliferation of nuclear weapons and weapons of mass destruction and effect ,

- international terrorism in its various forms,

- supranational organized crime (interrelated or not with terrorism),

- cyber-warfare, asymmetric use of technology,

- illegal human trafficking and immigration,

- economic criminality and escalating incidents of piracy with or without entailing crew's hostage situations,

- natural or manmade disasters, distraction or disruption of any critical infrastructure or/and energy resource, epidemic diseases,

- illegal trafficking of weapons and narcotics,

All these threats and their derivatives-components can be posed from any direction: mainland, coastland, TTW and littoral waters, islands, sea platforms, high seas and from any strategic distance.

As you may recall, in response to Strategic Concept, the Alliance Maritime Strategy(AMS) set out ''The maritime security environment" and ''The maritime contribution to Alliance security" which describes Allied maritime ops and activities as vital contributors to Alliance security. In particular, as it is defined in para 7 of the AMS, such contributions may include:

-Deterrence and collective defence;

-Crisis management;

-Cooperative security;

-Maritime security;

In the section of maritime security is clearly defined that:

a. the maintenance of ability of NATO's maritime

forces to undertake the full range of maritime interdiction missions is a prerequisite, including in support of law enforcement and in preventing the transport and deployment of WMD

b. the Alliance's maritime forces are prepared, in accordance with decisions taken at the Lisbon Summit, to contribute to energy security including protection of critical energy infrastructure and sea lines of communication(SLOC's).

''The maritime dimension of a comprehensive approach" (part IV of the AMS) directs for an effective cooperation through enhancement and extension to its implementation actions. The imposed enhancement and extension in cooperation is not restrictive in the maritime domain only. The nature of challenges, portrays a complex of interdependencies among the maritime and land security environment and their relevant actors, which usually turns up its complication.

The Comprehensive Approach Action Plan and its Updated list of Tasks, as well as the relevant supporting documents defines the key areas of work in order to fulfill the requirements for improving effective cooperation, mutual understanding and trust among internal and relevant external actors and organizations as well. The key areas of work encompasses planning and conduct of operations, lessons learned-training-education and exercises, enhancing cooperation with external actors, public messaging.

A multi-dimension approach to the ''broad horizon" of security challenges asks for a well-based security architecture, capable not only to cure but to prevent. Security and Defense are two separable but not separated fields. Often, security and defense overlap one another and could produce a vague and confused situation as for actions to be taken and ambiguities to be resolved. Effective cooperation among security and defense disciplines is imperative to face a joint perspective and much faster cycles of decision making. The accomplishment requires to turn the capabilities of one field into an advantage for the other, thus fostering operational synergy and achieving effective and practical cooperation. To this end, key components comprise:

-a well-calibrated ''flow of information" and network-centric capability

-pinpointing and accessing expert information,

-elimination of malfunctioning,

-inter-state cooperation,

-interoperability, inter-service and interagency cooperation to the maximum extent possible.

-security missions connectivity by means of a cross-jurisdictional ability to assess risk and utilize network enablers

-agile and usable forces (in terms of eligibility, readiness, deployability, flexibility, maneuverability in the area of operations, endurance and sustainability for protracted operations)

The fact that the Alliance calls for a non-stop improving security architecture is evident, as it happens with the need for adjustment to the rapidly developing new challenges in order to be proactive and in advance of any unpredictable or developing threat. Predominant trigger for being aware of any new security challenge and/or any emerging security situation is ''the flow of information" and its process through the intelligence cycle steps. In particular, regarding the mentioned certain threats (from proliferation up to illegal trafficking) the following six points would support the Alliance efforts by fostering the cooperation with external actors in the field of security information gathering and distribution:

a . to modulate an extended information grid, in order to provide an enlarged network-centric environment specifically tailored for speed in information flows and enabling the sharing of information at the appropriate level of the external actors,

b. a Joint Information Fusion Capability, including the Armed Forces Intelligence Centre's ''white picture", would offer, through a single hub, a robust ability to plan add direct information requirements, collect, process, produce and disseminate actionable information. So, a consolidated and coordinated ''threat assessment" would be provided to decision makers,

c. to establish Liaison Offices for INTERPOL and EUROPOL, in a manner as in the UN and EU, on the ground that NATO has a substantial cooperation

with the UN, strategic partnership with the EU and friendly and cooperative relations with all countries of the Euro-Atlantic Partnership Council and Partnership for Peace, the Mediterranean Dialogue and the Istanbul Initiative. The round-the-clock support and a wide range of operational assistance by the INTERPOL to member countries, as well as the operational and strategic agreements and cooperation of EUROPOL with Organizations and non-EU states should be considered for further exploitation,

d. to enrich the NATO Civil-Military Fusion Centre (CFC) in Norfolk,VA with personnel and information from INTERPOL and EUROPOL, upgrading the classification status of CFC accordingly,

e. in particular evolutions following specific emerging security situations, the restrictive principle of "need to know" to be modified to a "duty-to-share" one, depending on the emerging situation, possible consequences and effects as well as the promptness required for response.

f. based upon the previous points, a proper and usable Information Sharing Strategy would support the security architecture to face the certain threats mentioned above (from international terrorism up to illegal trafficking).

The relevance between the aforementioned "six points" with security operations focused on certain threats is obvious.

The revolution in information and communications makes top-down control and reports through the established channels more efficient and faster. In some respects this development enables much greater awareness in the operating environment, picture compilation, connectivity to a common information network and a timely and trusted operating picture with all the actors involved at different levels of security architecture. During a Maritime Interdiction Operation a series of activities inherent to the security architecture pillars takes place: domain awareness, recognition of potential violators, approach for identification, interrogation and stopping of suspect vessels, compliant or non-compliant boarding, inspection and collection of evidence and finally unblock, diversion or seizure when the situation dictates so.

Maritime Security Operations must be able to tackle the certain threats mentioned above (from international terrorism up to illegal trafficking) and support Nations and Law Enforcement Organizations in dealing with those threats. Information sharing and improved synergy are the key components of the operations.

Throughout the World's History the maintenance of security at sea has its own uppermost significance due to the interdependent network of commercial, financial and political relationships.

An Effective Cooperation among all security partners is the bedrock for a well based security architecture which serves to establish a common information environment, facilitates collaboration in shaping mutual understandings of the operating domain and permits integrated planning, coordination and conduct of actions in order to achieve desired results and the proper end-state. So we can evaluate and put on scale needs beforehand in order to meet a "fast detect > to engage cycle", what the full range of responses is and who to depend on.

It is imperative to outgeneral any adversaries. To this end, we must continue to forge the cooperation among all security echelons with the optimum use of regional agencies and enabling capabilities. Ensuring cohesion and effectiveness we avail of the present in order to meet the future.

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EVENTS

NATO Sea Sparrow International Tactics WG
3 - 7 June 2013

NMIOTC Advisory Board 2013
5 February 2013

JCTD C3PO Military Utility Assessment
2 11 April 2013

2013 NMIOTC Annual Conference
18 -20 June 2013

Advanced Situational Awareness Training (ASAT) Seminar
26 February 2013

Recce Visit of the Swedish Delegation
17 January 2013

ILLEGAL IMMIGRATION: OVERALL ASSESSMENT, MARITIME CHALLENGE AND POLICY RECOMMENDATIONS

By Dr. Siousiouras Petros & Kyriakidis Kleanthis, PhDc

Human migration has been a perpetual phenomenon for centuries and the reason has always been the same: pure survival at worst or the hope of a better future at best. Europeans have been immigrants themselves and not always legally. Americans, who turned out to be very strict as regards immigration , tend to forget that they are all immigrants themselves with the exception of the, close to extinction, indigenous population. There is nothing wrong with migration, as long as the emigrants want to find a new home, share common values and aspirations with the locals and the host nation can afford them. Greeks, having been refugees after a lost war, or emigrants (both legal and illegal) after a brutal civil war and two world wars, they have always been sympathetic and sensitive to any human being suffering the same fate. Nevertheless, something has dramatically changed, mainly due to the economic crisis. In this paper we will try to illustrate how illegal immigration effects maritime security and can become the most important and hard to face challenge for any Navy and Coast Guard; furthermore, how it is perceived as the number one problem in both Greece and Europe despite its declining numbers, and how we can handle the situation, without exchanging our democratic values for a more secure environment.

Have we reached a consensus about who can be deemed "illegal immigrant"? Not in absolute terms. Categorically, the persons who cross the borders illegally or the ones who enter legally into a third country but with falsified documents, belong to this group. How about the ones who are born into irregularity or have not renewed their visas or temporary residence and work permits? In most cases, they are considered illegal immigrants. The ones who should return to their countries but cannot do so, for practical reasons? Probably, not. Nevertheless, it is not the purpose of this paper to examine legalities pertaining to the

phenomenon; just to clarify that illegal immigration is not confined only to unlawful passages, on which our analysis focuses.

Another interesting question is where immigrants come from. I suggest that most people can sense the answer. "Afghanistan ranks first in terms of detection of illegal border-crossing" and has been the case many times in recent years, with Pakistan being usually the second and this year the third. Nevertheless, there are outliers, due to sudden geopolitical events. Thus, in 2011 the country with most illegal immigrants was Tunisia and in 2012 the second country was Syria; both of them did not appear in these statistics the previous years. As regards Tunisian emigrants in 2011, the proximity of their country to Malta and Italy made, for the first and predictably last time, the Central Mediterranean route, the one with most illegal border crossings in Europe. The "Arab Spring" created a wave of illegal immigration and the shortest way to reach EU is by crossing few sea miles.

Starting our analysis with the perception of peril, in a very interesting survey in six European countries along with Canada and the US, there was an alarming 56% of the people surveyed in Italy and over 40% in Germany, Netherlands and France that consider authorized – not irregular - immigrants responsible for the increase of criminal activities . Immigrants are targeted for getting the jobs of the locals because they do not participate in the social security system and get paid peanuts; money enough to survive but definitely lower than the minimum wage. This is partly true, because there are jobs that many Europeans are simply unwilling to do and are more than happy to have illegal immigrants do them instead. The locals mainly (not the immigrants) are therefore to blame for the rise of unemployment through labor exploitation. Nonetheless, it is an irrefutable fact that illegal immigrants put tremendous pressure on public services and undermine to an extent the rule of law.

Is the perceived threat a clear and present danger? First and foremost, irregular migration, another term for illegal immigration, much more politically correct, is not merely a maritime challenge right now. But it is going to be in the near future. Actually, nowadays, 90% of the illegal immigrants use land borders and the single "hotspot" which spectacularly increases the number of detected illegal crossings is Evros River, the land border between Greece and Turkey . Any State can use methods such as the creation of artificial obstacles in land (like the building of walls, fences or ditches) in order to contain illegal immigration. Nonetheless, this is a reactive approach, bound to fail for the following reasons:

Firstly, if a maritime country, like Greece, achieves a high rate of restraining illegal immigration by land, the immigrants will seek other "loopholes" and cross the sea borders, which are definitely much more vulnerable and much less controllable. Hence, at least in the long run, the land border surveillance leads to a displacement of the phenomenon to the sea and not to its reduction. This change is for the worse for practical reasons. If the irregular migrants travel in the high seas and their boats sink, either due to bad weather conditions or purposely, they are people in distress. In that case, they have to be saved by Navies and Coastguards for humanitarian reasons. And if there are people in danger, we will also conduct search and rescue operations, which by the way are very costly. Concluding, utter sea surveillance and constant patrolling is unfeasible and sometimes brings about the opposite results rather than the ones anticipated.

Secondly, the problem is universal and not local. If for instance Greece manages its borders in an excellent and absolutely effective way, illegal immigrants will still be able to flood Europe through other countries. If our policies focus on reinforcing the surveillance on one specific geographic area, the desperate immigrants will find another entrance point. Some Europeans are happy to see that illegal immigrants are less than 1% of the total EU population; but for countries like Greece this was the percentage back in early eighties; nowadays, the odds can be horrifying. The legal immigrants are just over 4% of the population (and they were a bit more than 7% 10 years ago, which shows that immigrants have been affected by the crisis as well).. Illegal immigration,

according to estimations exceeds 8% of the Greek population, far outnumbering the legal immigrants. The estimations partly stem from the fact that the number of arrests people attempting to cross the borders in a clandestine way in 2010 was equal to 3% of the total Greek population. At this point we need to highlight that the entire European South has sea borders which cannot be fully monitored. Italy and Malta suffered a couple of years ago with thousands of Libyans and Tunisians, who had to leave their country. 63,000 people landed in Italy alone in 2011 despite the Prime Minister had proclaimed by decree on February 2011 a "State of emergency".

Thirdly, I just used the phrase "had to leave" their country. Desperate people function in a "do or die" mode. Let us assume that they are arrested, or even deported, how can we be sure that they would not return? It is natural to expect that they would try again to save themselves and try as many times as it takes, until they achieve their goal.

Fourthly, by combating certain problems, like piracy, we increase illegal immigration as a by-product. Let me elaborate on this seemingly strange point, a true paradox. The poor Somali pirate who cannot survive out of piracy, the former drug farmer in Afghanistan, the Iraqi refugee, they all have two things in common. They turn to illegal immigration in order to survive and they blame the West for their misery. Not only do they become illegal immigrants, but they are also dangerous.

Before moving to the possible long-term solutions of the problem we need to see if the situation is getting any better. As aforementioned we have fewer incidents of illegal immigration and "over the last decade the estimated stock of unauthorized migrants in the EU-15 has decreased" , but this is due to all the wrong reasons. The first reason is that the EU and Greece in particular are in the midst of a huge economic crisis and therefore do not represent the Promised Land or a "Garden of Eden". Being less attractive due to your problems is not exactly a big success. The rise of ultra nationalism, combined with xenophobia, islamophobia and attacks on immigrants (legal or illegal) in the entire European continent, has created an unsafe environment and many potential migrants have second thoughts about their venture. We should not be very proud or happy for this development, because the European Union has always been considered the beacon of democracy and the incarnation of the protection of human rights; especially Greece which has been the cradle of both.

Concerning our country, we need to say that Greece is Europe's most vulnerable point. In 2008 illegal border crossing in Greece was just over 50% of the total crossings in the EU, this number increased in 2009 and became 75% and in 2010 the number reached the incredible 90%.In 2009 three out of four illegal immigrants entered the EU from Greece. In 2010it got worse. 90% of all illegal immigrants came through Greece. At a point there were more than 350 irregular migrants crossing the Evros River per day! There are several reasons for Greece being that exposed. Extensive land borders with Turkey but also with Albania, since the FRONTEX has identified as one of the routes for illegal immigrants, the one it calls "Greece-Albania circular route". Additionally there is the Western Balkan route and of course the huge Eastern Mediterranean route with migrants crossing the land borders from Turkey. The sea borders are also weak. Hundreds of islands make it easy for traffickers who can choose when, where and how to cross the sea borders. Greece and to a lesser extent Malta and Italy, was also unlucky, because the turmoil caused by the Arab Spring created waves of irregular migration from Libya, Egypt and lately Syria. From all these countries, the nearest and easiest point of entry to the EU is Greece.

Without being political, Turkey needs also to do more in order to contain the illegal immigrants. According to a EUROPOL report "its geographical position, the

presence of historical smuggling routes and the comparative ease with which entry visas may be obtained have transformed Turkey into the main nexus point for illegal immigrants on their way to Europe" . The EU Parliamentary Assembly has recognized that "Turkey should honour its agreement with Greece for the return of migrants who have entered Greece without authority from Turkey" , which means that Turkey obviously fails to do so.

What is to be done? Well, one initiative which is definitely paying off is the establishment and the successful operations of FRONTEX . Solidarity and burden sharing is a sine qva non for the solution of the problem and the EU understands that, as it increased FRONTEX budget from just over 6 million euros in 2005 to almost 100 million in less than 5 years. The success is not only due to FRONTEX of course. As it is very well documented in FRONTEX reports, the operation of the Greek Police Force, "Xenios Zeus" and "Shield" ("Aspida"), with the deployment of 1,800 police officers to the Greek land border with Turkey was extremely successful both preventively and through law enforcement. As expected, a byproduct of this success is the increase of illegal immigration by sea. Probably the desired end-state for FRONTEX is to "eventually transform to the initially proposed model of a European Border Guard agency".

Moreover, since it is a European problem, financial aid should be given to the entire south, to improve their land surveillance and mostly their maritime situational awareness, by ameliorating their infrastructure. Especially, in Greece, if the Evros border is sealed one way or another, the sea border cannot be fully controlled. Turkey should receive some aid in order to play its role, especially nowadays that the Syrian crisis has put on it tremendous pressure. Organizations with vested interest in combating illegal immigration or any kind of trafficking including weapons of mass destruction should assist themselves by helping Greece.

The second policy to be applied is combating the traffickers. There is no room for misunderstanding; human trafficking is a lucrative business, which can easily profit-wise, be compared with the smuggling of drugs or guns. The penal laws in most countries are extremely harsh for drug dealers but more lenient concerning human trafficking. Therefore, harsh punishment for traffickers, including the confiscation of their properties, should be adopted. We also have to define who we consider traffickers and thus we need to include counterfeiters who falsify documents, corrupted members of local bureaucracies and not only the crews of small boats or some truck drivers.

The third policy that should be applied is particular to Greece. The irregular migrants who are detected in Greece are handed a decision to leave the country within a week. I suggest that in the interim, many prepare and execute an alternative plan and thus stay, instead of leaving. 48 hours would be more than enough.

One more policy recommendation to be adopted, this time by the EU is to change or abolish Dublin II Regulation which relocates irregular migrants from the entire continent to their initial EU countries of entry. Thus, it puts enormous pressure on the South, which is on the verge of collapse. If this hideous Regulation remains in place, it should be amended and the South should be reimbursed for every patrolling or search and rescue operation conducts in its effort to combat illegal immigration. The EU Parliamentary Assembly has adopted a Resolution , highlighting both the need to revise and implement "Dublin II" in a fairer way and the need to maintain "a moratorium on returns to Greece of asylum seekers" under this unfair regulation. Even if the phenomenon is examined with purely humanitarian

criteria, the Greek detention system cannot afford more immigrants and therefore their detention is bound to involve human-rights violations due to practical reasons. Dublin II turned Greece to a "dumpster of human souls" and every single person who signed it should be ashamed.

What is even more important: You cannot defeat irregular migration if you do not fight the root causes of the phenomenon. By raising the standards of living of third world countries, by assisting the creation of rule of law in lawless areas or countries, by providing the local population with an alternative, we can really combat the irregular migration.

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SPECIALIZATION AND PREPAREDNESS IN COUNTERING EMERGING THREATS AT SEA

By Dr.Marios Efthymiopoulos, CEO & Founder, Strategy International Greece.
Fr. Visiting Scholar, Johns Hopkins University

International Piracy stands out as of prime importance to the emerging challenges that will have eventually to be dealt with by NATO member states. Member-states such as Greece hold a high interest and a high stake but also a duty to protect their national and multinational interests. Security training and 'smart preparation' for a 'smart engagement' at sea, may positively affect training and operations for future, naval land and air interoperable alliance components. In order to constructively counter existing but also future international piracy measures there is a need to construct a joined alliance conceptual strategic plan. It should be robust and to the point. It should be brief. It should be a comprehensive political security framework for also maritime training, regulation and counter-joined operations and most importantly NATO-nationally led by one member state (rotating) operations. Greece can do the preparedness level, training and also support level, nominated and headed by the NMIOTC. The NMIOTC stands out as a hub for NATO and non-NATO members Allies and regional or bilateral contributors. The NMIOTC offers, international standards that in practice can only and positively affect joint international community operations that are yet to come, if one considers the constant challenges and threats emerging in the open sea spaces and the changes in the Mediterranean region.

A possible constructive proposal and joined reaction to the aforementioned issue affecting the emerging challenge of international piracy and generally of maritime security, seems as a good timing also for the introduction as well for the stake holder's national interests within the Alliance in a policy such as this one. A conceptual framework for maritime NATO security nationally led by one but joined human capital by all, may possibly bring to the surface some realities in terms of everyday operations and leadership within the Alliance, a new balance form of Alliance within, but also several new options. It will reflect decisions that need to be made for the future of the alliance's viability but also dealings amongst member-states in all levels of everyday policy, administration, financial regulation and editing application both political and military.

Today, member-states are asked to be financially but also operationally more firm and effective. They need to do more, to offer more. To offer with robust terms and for the long-term: A possible solution as such maybe the policy of 'Specialization and preparedness" on a specific alliance policy.

For Greece and Maritime affairs, the NMIOTC stands out as one of the most international places to visit for training, assurance and quality preparedness for counter-maritime operations at sea and of shore affairs such as energy affairs. A true commitment and engagement to a single policy role (lead) per-member state. A member state will hold part of a specific policy leadership (both financially and politically) but still of joined concern and joined work consultation and effectiveness. This seems as a viable solution both NATO and Greece, financially and politically. It also re-

commits Greece as a member-state of the Alliance and testifies for the ability to continue leading. It is a viable and credible solution. It is also a solution that will project national growth and international posture, investment and development as new structures, institutions and people will have to be engaged indirectly and directly in the construction sector but also to the policy making, creation and operation. It will enhance cultural exchange and will effectively engage the tactical effectiveness of smart defense as well, since strategically one country will hold the expertise and lead solely to a specific policy rendering inter-connectiveness and interdependence more true than ever.

At a time of austerity measures and where proposals with solutions can be presented, this article testifies as being a proposal: Countries should take an individual national lead in solely one overall NATO policy. This should include joined alliance human capital offer per policy case without however rendering each country fiscally attached to each position. Specific policies that affect national countries can be more constructive than asking to join in financially to all or major policies not only with human capital but with funds leading some policies underfunded or nationally under-represented of funded due to the global crisis.

As such there is a need of member states to specialize on specific alliance policies; to overcome national obstacles and find a truthful end to possible bilateral disagreements. It avoids any possible future clash of interests and avoids also duplication of efforts. A country that decides to take the lead in the case of international piracy will take the lead financially, politically and militarily to the extent it wants, (training, sharing of intelligence, taking the lead in preparation of tactical operational center, bases and equipment) lending its financial per-annum support in the long-term more viable to NATO, vibrant and more committed to do more in practice. It will also avoid free-riding. It will allow countries to constructively and positively cut-back on large expenditures and will re-align foreign policy and defense policy objectives and maybe the supranational cause to end possible political and military disputes. It will also upgrade national policies of NATO, towards a true transatlantic commitment. It will upgrade NATO's policy inter-connection and inter-dependence amongst all members but also associated countries with NATO. Countries will have to truly rely on joined commitment for a large 'umbrella' affecting all.

The effectiveness of a security policy framework in counter-piracy and more in counter-maritime affairs and preparedness led by solely one state and followed by all, only by providing human capital will diminish over-expenditure. It will take into consideration all operational and administrative lessons learned from NATO's past and current operations but also centers and bases. It will eventually create the opportunity for a renewed co-operation in the framework of the new supranational strategic concept. It will enhance the decisions that are drawn on smart defense from the Chicago Summit. Chicago requested and NATO does still request for a 'smart financial, training and operational engagement' as stakes are high and challenges emerging, even in the region of Southeast Europe and the Middle East. A possible analysis will show that stakes are high for those states that do hold the largest interest in a specific policy that they are most interested at. Yet, Maritime security and countering international piracy is no less than a truly important and international policy that affects all and that nevertheless is able to reassure commitment of naval powers and member-states both individually and collectively.

The sole decision that needs to be made is who will bear the lead. Yet, as well, who will bear the political cost. And I wish to clearly state from my personal experiences that the NMIOTC can bear such effective and fully engaged cost. As the initial creation cost is already spent by the Greek Government and the NMIOTC years away. The NMIOTC now holds an internationally accredited and international experienced human capital, and is well on its way to increase its posture and abilities to train and take the lead on.

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Somali Piracy: Following the Paper Trail

By Mr Pierre St. Hilaire, Head of INTERPOL Maritime Piracy Task Force

Since man first built a boat and filled it with wares, there has been piracy. The fundamentals of piracy have remained almost entirely unchanged for thousands of years. Today, as in the past, piracy involves the capture, often violently, of a merchant ship for pecuniary gain. One development in modern times has been that the cutlass has been replaced with the AK-47, and rocket-propelled grenades (RPGs), the Jolly Roger no longer flies and the financial stakes are much, much higher. However, piracy has also evolved in one more important way - rather than stealing whatever goods happen to be on-board, modern pirates often demand millions of dollars in ransom. Piracy has thus become an exceedingly lucrative crime, proving an alluring vocation in a region where young men have few other prospects to escape poverty and destitution.

Piracy is said to represent the first truly international crime. However, while all nations agree that piracy is a universal crime, their domestic laws can differ on how a particular crime is defined, whether or not court jurisdiction can be established, and what the eventual punishment for piracy must be, including how it must be delivered. Which country takes the lead in prosecuting pirates, is highly dependent on the facts of an individual case. Relevant factors, for example, may include the flag country of the captured vessel, the nationalities of the ship crew or those kidnapped, the nationality of the pirates, and the location of the ship when it was attacked and, or, hijacked. Political considerations may also play an important role in deciding whether or not, and where, to prosecute a given case of piracy. While hundreds of pirates have been prosecuted by regional states and from around the world, the pool of recruits for the organizers of piracy attacks remains constant – there is, in fact, an indication that it is growing. Through an unbroken line of resolutions on the situation in Somalia – from United Nations Security Council Resolutions 1950 to 2020 – the UN Security Council (UNSC) has recognized the need to focus on not only the pirates captured at sea but also the networks that finance and orchestrate these attacks, and to dismantle them.

INCREASED AND SUSTAINED FOCUS ON HIGH VALUE TARGETS

One of INTERPOL's core missions is to assist the global law enforcement community in collecting, coordinating, and disseminating, actionable information

and intelligence, supporting and enhancing domestic and international enforcement, and tackling maritime piracy and its illicit funds, in collaboration with other key partners. INTERPOL's Maritime Piracy Task Force (MPTF), created in January 2010, coordinates INTERPOL's international response to the maritime piracy threat in all its facets. It specifically considers the financial aspects of the piracy criminal enterprise, with a special focus on High Value Targets (HVTs) such as pirate leaders, organizers, negotiators, and investors. INTERPOL has long recognized that, given the low risks and high rewards of piracy, simply arresting and prosecuting individual pirates captured at sea will not meaningfully lower the incidence of pirate attacks.

In the words of INTERPOL Secretary General Ronald Noble, "To strike at the heart of maritime piracy, we must investigate, understand, and use to our advantage the financial component behind each of these attacks. We must follow the money as part of a global response involving law enforcement against maritime piracy" (INTERPOL Press Release 19 January 2010). The global law enforcement community faces a number of challenges in trying to identify the organizational and financial structure of pirate networks and to prosecute these HVTs.2 Without a concerted effort to improve information-sharing between all the actors involved it will be extremely difficult to bring to justice those who orchestrate and organize these pirate attacks.

INFORMATION-SHARING AND THE INTERPOL MARITIME PIRACY GLOBAL DATABASE

One of the biggest obstacles in defeating piracy networks is the lack of information-sharing between key actors that collect or are in the possession of relevant data on piracy networks. The process of investigation, arrest, and prosecution of persons associated with maritime piracy is initiated in a maritime environment. However, its roots and the pursuit of closure are land-based and require the cooperation of military, law enforcement authorities, and the private sectormaritime shipping community, including owners, operators and insurance companies. There is a large volume of information on piracy networks that is fragmented and in the possession of actors that have little past experience of working together closely. For example, information on piracy attacks and those responsible may be in the possession of the military; complementary information on the same attacks may be in the possession of the flag state, the ship owner, local law enforcement, crew members and hostages, and the private actors conducting the ransom negotiations. The ultimate goal is to collect and centralize this information for use by the law enforcement community.

Either bilaterally or through Working Group 5 of the Contact Group on Piracy off the Coast of Somalia, under the stewardship of the government of Italy, INTERPOL actively works with all of these partners – the private sector, military, and law enforcement – to collect and share information about pirates and pirate attacks. All of these actors have a shared resolve to defeat the piracy networks.3 Because of the international nature of piracy networks, even well trained local law enforcement will only be able to glean a partial picture of the network behind a lone pirate attack. It is only by sharing the results of investigations with the international community that a more complete picture will begin to emerge. Drawing on two of its core functions, INTERPOL is uniquely positioned to facilitate that kind of international collaboration. By facilitating secure global communication and offering its analytical expertise through operational data services, INTERPOL aids the international law enforcement community to identify links between different piracy incidents. Stimulating information-sharing and collecting data becomes meaningless unless the data can be analyzed and contextualized. INTERPOL's Maritime Piracy Task Force (MPTF) provides this assistance chiefly via its Global Maritime Piracy Database. On 29 July 2011, INTERPOL Washington, in collaboration with INTERPOL General Secretariat (IPSG) MPTF developed and implemented a customized database which contained information on Somali piracy in order to assist law enforcement authorities around the world by sharing information to facilitate piracy investigations, and increase piracy-related prosecutions.

INTERPOL further assists select member states in proactively exploiting evidence in their custody to help identify the organizers and leaders of the pirate networks. In 2011, INTERPOL launched Project EVEXI (Evidence Exploitation Initiative) – a strategic initiative co-funded by France and Norway – to assist select states exploit maritime piracy evidence in their custody

and establish procedures for maritime piracy intelligence-gathering and forensic evidence collection. By establishing these procedures in all of the regional countries currently involved in investigating piracy, the project will provide regional investigators with an INTERPOL-supported methodology and information-sharing mechanism. Through ensuring that information assets are optimally exploited for intelligence, and evidence dispersed across jurisdictions is more able to be unified for the purposes of prosecution, local police forces will be able to better target individuals involved in the organization, financing, and implementation f acts of piracy.

DEVELOPING REGIONAL CAPACITY TO CONDUCT COMPLEX TRANSNATIONAL INVESTIGATIONS, INCLUDING FINANCIAL INVESTIGATIONS

INTERPOL plays a central role in capacity-building efforts, including through improving and providing infrastructure and exchanging data. INTERPOL's counter-piracy strategy is organized around a single, unifying principle: to build, balance, and integrate the tools of regional structures to combat maritime piracy by strengthening existing assets of investigation and prosecution, reinforcing investigative skills, and building international cooperation. A European Union-funded, 36-month capacity building project aimed at developing the forensic and investigative capacity of seven Eastern African countries will provide essential equipment and/or training to law enforcement in those respective countries. In addition to building the forensics capacity of select member states involved in prosecuting maritime piracy (notably the Seychelles, Kenya, Tanzania and Mauritius), INTERPOL's projects and initiatives with "front-line states" in Eastern Africa seek to further develop the capacities for criminal investigation units in those countries conducting the type of pro-active, transnational investigations required to successfully prosecute those who illicitly finance, plan, organize, or unlawfully profit from pirate attacks off the coast of Somalia.

More specifically, UNSCR 1976 calls for the "implementation of anti-money-laundering laws," and "the establishment of Financial Investigation Units" as tools against the international criminal networks involved in piracy. Regional states, as well as other states, could be vulnerable to efforts by piracy networks to launder the proceeds of maritime piracy. Assisting states in the effective implementation of the Financial Action Task Force (FATF) 40 Recommendations remains a high priority in addition to creating FIUs, and developing trained financial investigators that are experienced in financial investigatory matters involving both domestic laws and international conventions and standards.

"Countries should make it a policy priority to ensure that there are an adequate number of properly trained financial investigators. These financial investigators should be adequately trained, and experienced in financial investigatory matters involving both domestic laws and international conventions and standards. Countries should create institutional conditions that provide the appropriate environment to carry out financial investigations and to facilitate cooperation by providing the proper legal authority for any involved agencies."

INTERPOL, along with other partners such as the United Nations Office on Drugs and Crime (UNODC) and the World Bank, should continue their collaborative efforts to develop FIUs in front-line states and to train "financial investigators" to identify and arrest "those who illicitly finance, plan, organize, or unlawfully profit from pirate attacks off the coast of Somalia." This objective is eminently reasonable and possible given that an FIU in the Seychelles which has set the gold standard for financial investigations could serve as a model for other countries.

CONCLUSION

The costs of maritime piracy are enormous. Seafarers are being held hostage in horrific conditions, many of whom have been tortured, abused, and sometimes murdered. It is, first and foremost, a humanitarian issue that must be addressed with urgency. Action must be taken that attacks all of the components of the intricately orchestrated international crime of maritime piracy. INTERPOL has established ienforcement bodies alongside private sector stakeholders in coordinated efforts to facilitate the identification and traceability of suspects associated with maritime piracy, as well as in their prosecution, and will continue to build on such initiatives.

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COURSES, EXERCISES AND TRAININGS

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26 - 29 March 2013

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Training of 26th US Marine Expeditionary Unit
26 - 29 March 2013

Maritime Biometrics Train the Trainers Course
28 - 29 March 2013

Training of HMS Dragon
1- 3 April 2013

COURSES, EXERCISES AND TRAININGS

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15 - 19 April 2013

Resident Course 2000- 3000
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17 April 2013

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29 - 30 April 2013

Training of ITS ZEFFIRO
20 - 24 May 2013

THE 2013 NMIOTC ANNUAL CONFERENCE: FUTURE SECURITY AT SEA. MIO ROLES.

By Commander Harvey L. Scott, U.S. Navy (Retired)

Since the attacks of 11 September 2001, the threat posed by international terrorism has gained a new dimension. Incidents such as the USS Cole and Limburg attacks have demonstrated that terrorists are interested in and capable of using the maritime domain to achieve their objectives. Preventing terrorists from attacking at or from the sea and from crossing maritime borders has thus become a major preoccupation for European and North American governments. Particular attention has been given to addressing the vulnerability to terrorist attacks of sea-based critical energy infrastructure and of maritime flows of energy resources. `

Operation Active Endeavour (OAE) was initiated in October 2001 in response to the terrorist attacks against the United States of America on September 1, 2001. The mission of OAE is to conduct maritime operations to help deter, defend, disrupt and protect against terrorism in the area of operations. Since its inception OAE has proved to be effective in deterring terrorism in the Mediterranean. While the terrorist threat to military naval assets and commercial shipping in the Mediterranean is assessed as low the potential for a terrorist attack cannot be ruled out. OAE supports the Alliance Maritime Strategy in the areas of defence against terrorism, Maritime Situational Awareness and Maritime Interdiction Operations. OAE also contributes to maritime security capacity building through the participation of Non-NATO Nations.

In consideration of the broad spectrum of potential terrorist activities the risk to the interests of NATO allies and NATO creditability are high in the event that we fail to detect and disrupt a planned terrorist attack. In this regard it is anticipated that enhanced network-based operational capabilities will be developed in the areas of future sensor networks and requirements for surveillance assets and enhanced interdependencies pertaining to Maritime Situational Awareness capability development. It is anticipated that these advances would be linked with the development of a robust and effective sensor and non-sensor information network.

The 2013 NMIOTC Annual Conference provided new opportunities for discussion and path forward proposals in dealing with future maritime security threats and linkages with Maritime Interdiction Operations, investigated interdependencies and influences under the auspices of Operation Active Endeavor (OAE). Based on the results of the NMIOTC Annual Conference, specific follow-up actions and areas of enhanced engagement will be identified, which would be expected to lead to implementation of new domains in consideration of future training and engagement via NMIOTC.

The conference was focused but not limited to the following pillars:

Border Security

- Identity Operations (Biometrics)
- Human Trafficking

- Identity Operations (Biometrics)
- Human Trafficking
- Illegal Immigration
- Trafficking Illicit Goods

b. Energy Security

- Critical Infrastructure Protection
- Maritime Piracy (HOA & West Africa)
- Operational Costs – Energy Consideration

c. MIO in Strategic Chokepoints

- WMD Counter Proliferation
- Maritime Terrorism / Piracy

d. Civil Military Cooperation

- Civil Military Cooperation in Organized Crime (UN, EU, INTERPOL, etc.)
- Intelligence/Information sharing (NATO, EU IMO, UNODC, etc.)
- Information sharing with Non-NATO Entities

While the two previous NMIOTC Annual Conferences focused on issues related to piracy this year's conference focussed on the more broad based issues related to overall maritime regional security threats as applicable to the current structure of OAE and opportunities for the future evolution of OAE engagement activities.

The purpose of the expansion of the points of discussion for this year's conference was designed to deal with evolving regional security threats and explore opportunities for cooperative engagement between a broad based cross section of organizations, both civilian and military, currently engaged in developing programs and activities addressing these threats.

The structure of the conference aimed to encourage presentations and follow-up discussions regarding the issues noted above with dialogues by national and regional military and non military organizations and agencies with the goal of developing a viable path forward to address these threats via cooperative engagement.

A potential path forward would be the establishment of a working group of "focal points" within the individual national entities, organizations and agencies for follow-up planning and discussion with the goal of the development of a plan of assessment and cooperative engagement to enhance addressing these threats.

The participation of organizations and agencies that are involved with regional border security engagement activities was a critical element for the success in exploring opportunities for cooperative regional security engagement.

It is anticipated that the outcome of this conference will lead to opportunities for enhancing Maritime Situational Awareness in response to threats of maritime terrorist activities in the Mediterranean. Through the development of enhanced dialogue and cooperative engagement via nations neighbouring the Mediterranean and international entities a common understanding of the maritime situation would be enhanced leading to greater effectiveness in the planning and conduct of operations.

We envision that this year's NMIOTC Annual Conference will provide a stepping stone in providing the tools and a greater understanding to support activities and engagement that will reduce the potential terrorist threats to NATO and national maritime assets in the Mediterranean.

NMIOTC is in the process of planning the next Conference, to be held in June 2014, building on the work accomplished this year as well as feedback from previous events. Initial discussions among the NMIOTC Conference Organizing Committee and the distinguished guests during the conference have already provided a foundation for NMIOTC 2014 Annual Conference which we hope to see being developed into a high-level forum that can engage a wide audience of maritime stakeholders in working towards viable solutions to current NATO maritime security issues. NMIOTC along with its external advisory team is willing to offer to NATO all of its expertise and dynamism as a think tank that can assist Alliance's efforts toward future security at sea.

Commander Harvey Scott, USN (Retired)is a graduate of the University of Hawaii with a technical background in health physics and began his civilian career with the Nuclear Engineering Department at Pearl Harbor Naval Shipyard. Email to:harveyangelika@gmail.com

The "Volga" Case: Civilian-Military Cooperation in Maritime Interdiction Operations

by Mr Ingo Klaus Wamser

Talking about maritime interdiction operations nowadays, it is normally focused on piracy, drug trafficking and non-proliferation of weapons of mass destruction. Nevertheless the most traditional way to make use of the sea and one of the most critical issues during the three UN Conferences on the Law of the Sea is fisheries. Regarding the challenge of the nutrition of a growing global population the preservation of living marine resources and the importance of fisheries management are on the rise, illegal, unreported and unregulated (IUU) fishing being the worst menace to all efforts in this direction.

The Heard Island and McDonald Islands are an Australian external territory and volcanic group of barren Antarctic Islands, about two-thirds of the way from Madagascar to Antarctica.They are located approximately 4,099 km southwest of Perth, and 4,200 km southeast of South Africa. The islands are currently uninhabited. Since 1997 the region is a registered World Heritage site for natural criteria.

IUU fishing is one of the main threats to the existence of commercially valuable and vulnerable Patagonian Toothfish in the remote areas of the Southern Ocean. Although several regional and international organizations are working to stop the poaching of Patagonian Toothfish in the region, enforcement problems make it difficult to stop this illegal practice.The high market value is one of the main contributing factors toIUU fishing of Patagonian Toothfish. Remoteness of the fishing ground makes surveillance and enforcement very difficult, especially as the Australian Fisheries Management Authority (AFMA) didn't operate high-endurance patrol vessels at this time. Both of these factors provide ideal circumstances for IUU fishing.

At the beginning of the year 2002, Australian Maritime Patrol aircrafts observed IUU fishing activities off Heard Island tracking at least two ships involved in these activities. Not willing to further accept IUU fishing in its Exclusive Economic Zone (EEZ) around Heard Island the frigate HMAS Canberra with an embarked AFMA fisheries inspector was deployed together with the tanker HMAS Westralia for Heard Island arresting the "Lena" and the "Volga" on February 7th and 8th, 2002. Both were long-line fishing vessels flying the flag of the Russian Federation. While the masters were Russians the crews were mainly Spanish.

Having been pursued unsuccessfully for almost two weeks earlier by a fisheries patrol vessel running out of fuel, the "Lena" was now boarded by vertical insertion using the helicopter of HMAS Canberra about 140 nm inside the Australian Fisheries Zone (AFZ). On February 7th, 2002, the Australian naval officials, while conducting naval patrol against IUU fishing of Patagonian Toothfish in the EEZ of theHeard and McDonald islands in the Southern Ocean, also boarded the "Volga". The fishing license carried by the Volga

entitled it to commercially fish in the Russian EEZ and the 'open sea and coastal zones of foreign countries'.. A condition was observance of the rules governing the fishing industry and the conditions of international agreements.

Australian military personnel operating from HMAS Canberra boarded the "Volga" on February 7th, 2002, when the vessel was on the high seas just beyond the Australian EEZ and between Heard and McDonald Islands in the Southern Ocean. Australia's case was that the Volga had been observed fishing illegally in the EEZ and fled into international waters when it became aware of the Australian Navy's presence.

The Master and crew were detained under powers in the Fisheries Management Act 1991 and the vessel and catch were seized. On March 6th the Chief Mate, the fishing Master and the fishing Pilot, all of whom were Spanish nationals, were charged for unlawful fishing in the AFZ, while the rest of the crew was released (and later repatriated to Spain).

Under the Fisheries Management Act 1991 the catch (value), vessel, nets and equipment of the "Volga" were all liable to forfeiture by order of a court. The catch, some 131 tons of Patagonian Toothfish and 21 tons of bait, was sold for A$1,932,579.28 and the money was held in trust by the Australian government waiting for a final court order. It is normal to sell the catch and bait of an arrested vessel because they are perishable. The owner of the "Volga", Olbers Co Ltd, a company incorporated in Russia, instigated proceedings in the Federal Court of Australia seeking to prevent the forfeiture of the vessel and its catch to the Australian government. Later on an application for prompt release was filed with the International Tribunal for the Law of the Sea at Hamburg.

While the law suits on the national and international level concerning the arrest of the "Volga" are mainly concerned with questions of an adequate amount of bonds the "Volga" case as well as the arrest of the "Lena" are a very good example of successful civilian-military cooperation in maritime interdiction operations. Due to a lack of high-endurance platforms the AFMA was not able to interfere IUU fishing for a long period in the remote area of Heard Island on its own. On the other hand the Royal Australian Navy was lacking law enforcement powers to engage in fisheries enforcement activities. In a combined mission a successful interception of the illegal activities has been possible even over very long distances and under harsh weather conditions. Regarding a worldwide lack of public funds such cooperations including military vessels and aircrafts together with civilian law enforcement personnel can be an answer to demanding missions in remote locations and over long periods. The enforcement of regulations in the EEZ regarding fisheries but also the protection of offshore installations including not only oil and gas rigs in the same way as wind farms against terroristic threats are demanding task exceeding the abilities of civilian authorities in manpower and equipment of a waste majority of countries. Making use of military vessels can therefore be a vital contribution to increase on-scene presence of authorities in the EEZ deterring illegal activities of any kind and strengthening the awareness of armed forces' significance in public opinion.

Mr Ingo Klaus Wamser graduated from the University of Passau, Faculty of Law. He holds licences as master mariner and private security profes. In 2011 he got appointed as a lecturer on the law of the sea and marine mining regulations at the Montanuniversität Leoben in Austria.
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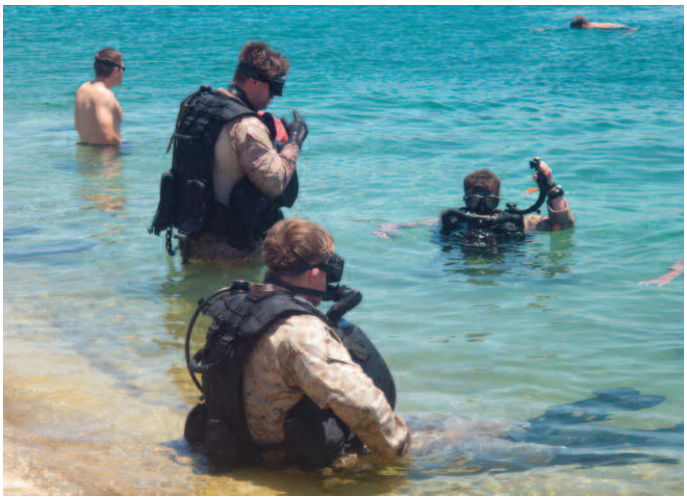
COURSES, EXERCISES AND TRAININGS



Training of US 26TH MEU RECON
27 May - 2 June 2013

Training of US Coast Guard AIT
17 - 21 June 2013

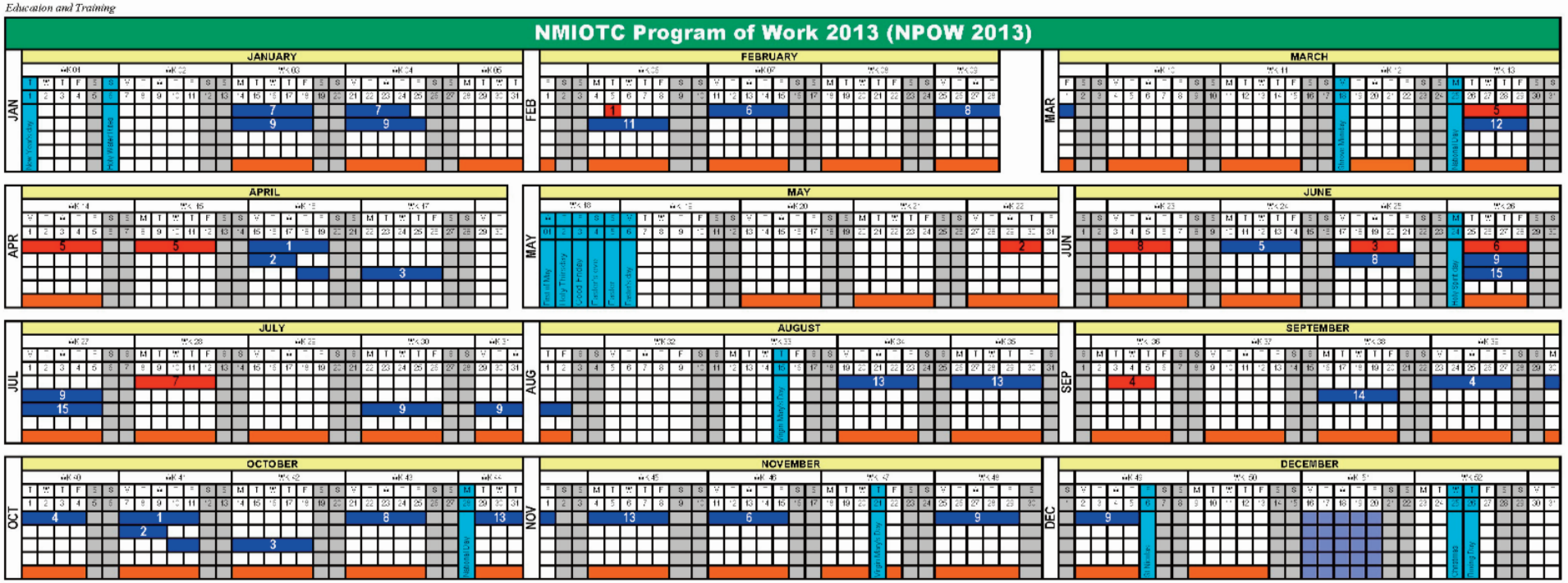
Training of IMO-DCoC
25 June- 5 July 2013

Training of NLD Maritime EOD
25 June- 5 July 2013

Maritime Advanced Situational Awareness Training
(M-ASAT) Pilot Training
4 - 12 July 2013

Exercise ADRION LIVEX 2013
NMIOTC Mobile Training Team
4 - 12 July 2013

NMIOTC Program of Work 2013 (NPOW 2013)



COLOR CODES:

- Conference - Meeting
- Open Window for Units
- National Holidays
- Evaluation of courses / maintenance
- EXERCISE
- TRAINING

ACTIVITIES

1. NAB (NMIOTC)
2. NCB (HNGS)
3. NMIOTC Annual Conference
4. ATP 71 WORKSHOP (TBC)
5. C3PO MUA Activities (TBC)
6. e-Learning Co-operative Development Team
7. Maritime ASAT Pilot Course (TBC)
8. NATO Sea Sparrow ITWG
7. Training of Norwegian Coastal Rangers
8. Training of USCG
9. Training of IMO-DCoC
11. Training of GR SOF
12. Training of 26th MEU
13. Training of German Boarding School
15. Training of NLD Maritime EOD Company

COURSES NAMES (ETOC ID.)

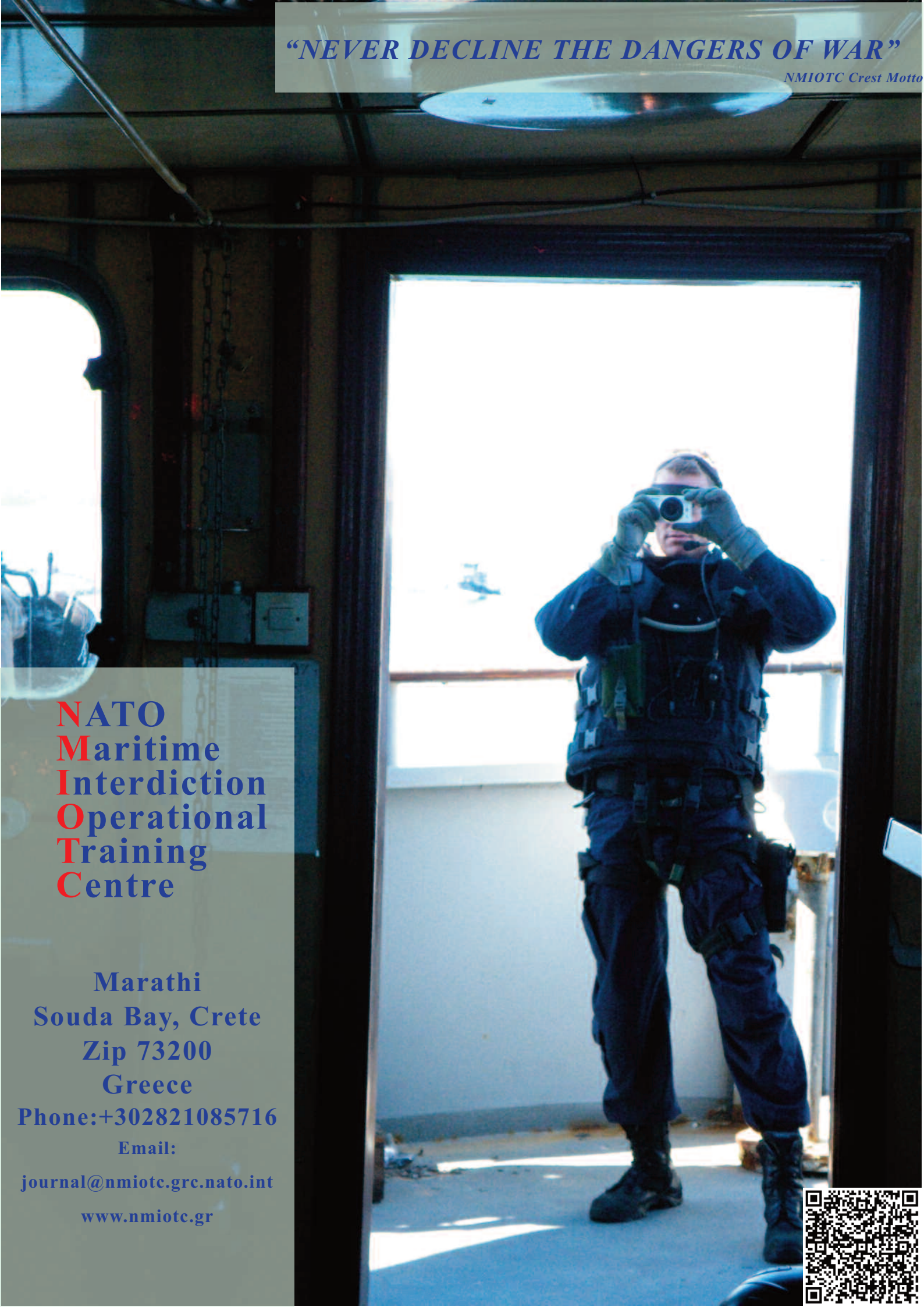
1. Course 1000 - Command Team MIO Issues (OPS-MA-3110)
2. Course 2000 - Boarding Team Classroom Issues (OPS-MA-3210)
3. Course 3000 - Boarding Team Practical Issues (OPS-MA-4310)
4. Course 5000 - Maritime Operational Terminology Course (OPS-MA-2520)
5. Course 6000 - Weapons of Mass Destruction in MIO (OPS-MA-4610)
6. Course 7000 - MIO in support of Counter piracy (OPS-MA-4710)
14. Maritime C-IED Course

- **Updated 10 Apr 2013**
- **Training tuition fees iaw NMIOTC Dir 60-1 (Change 4)**
- **Scheduled trainings of Naval Units are not depicted**

NMIOTC
Education and Training

"NEVER DECLINE THE DANGERS OF WAR"

NMIOTC Crest Motto



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