



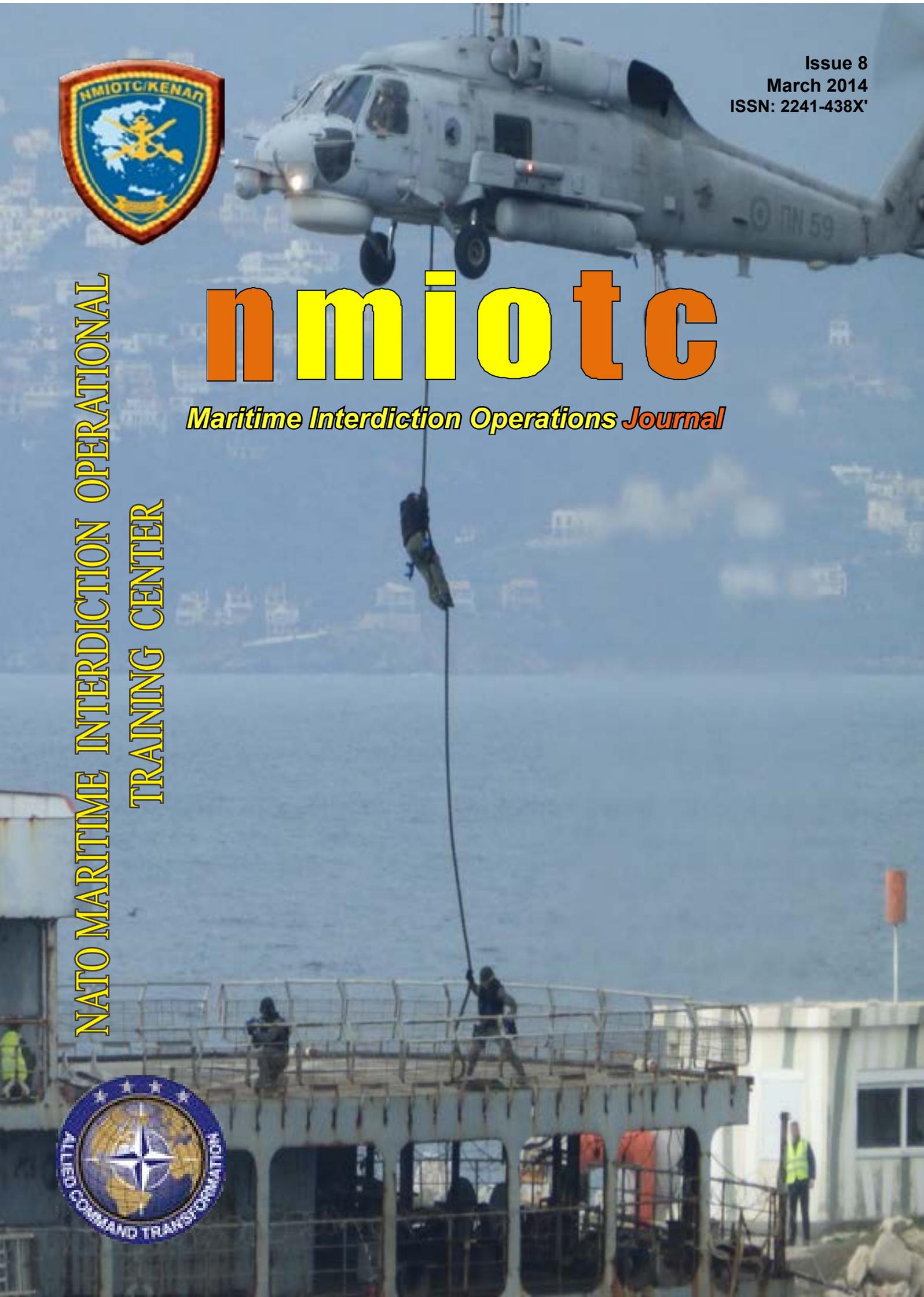
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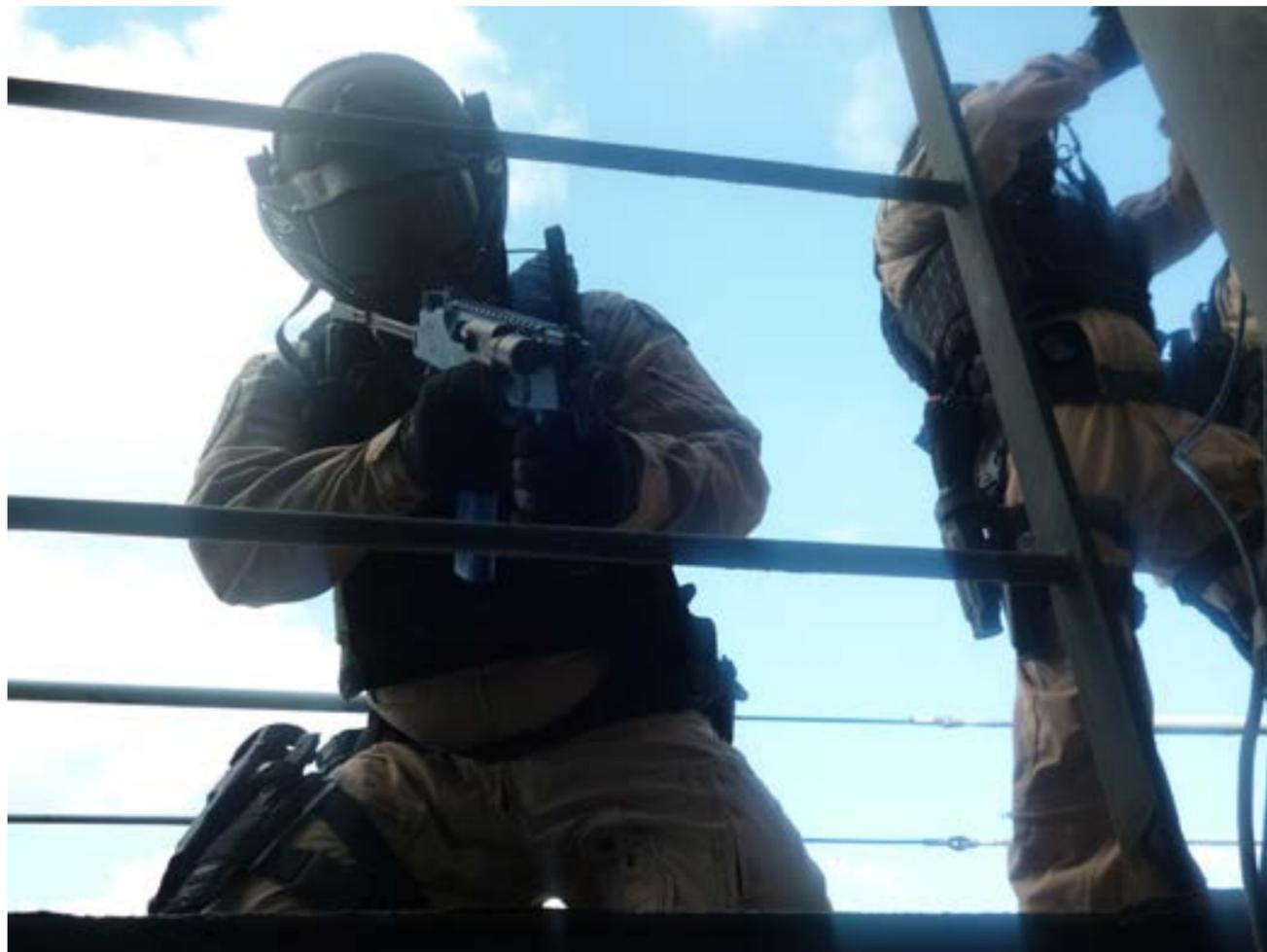
Maritime Interdiction Operations Journal

NATO MARITIME INTERDICTION OPERATIONAL
TRAINING CENTER



2014 COMMITMENTS

- Continue to contribute to NATO's specialized training and to support current and future Operations of the Alliance.
- Promote training activities and keep the high quality and quantity of trainings.
- Maintain closer contact and promote mutual understanding with related NATO entities and other NATO training facilities.
- Participate in all NATO working groups relevant to MIO.
- Participate and contribute to transformational efforts, events and activities related to MIO, enhancing cooperation with Research Organizations and Universities in related topics.
- Further exploit all the geographical features offered in Souda Bay in order to expand the training scenarios.
- Organize and further develop the NMIOTC course 8000 "Maritime C-IED" and "Maritime Advanced Situational Awareness".
- Organize the first NMIOTC Pilot Course 9000 "Legal Issues in MIO"
- Organize five more training sessions of the IMO-DCOC countries training.
- Organize the 5th NMIOTC Annual Conference on the theme: *Building a Law Enforcement Culture at Sea for a more Secure Maritime Environment*



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MARITIME INTERDICTION OPERATIONS JOURNAL

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As a result to these efforts on November 7th, 2013 the Supreme Allied Command Transformation awarded NMIOTC with a Quality Assurance Unconditional Accreditation, after it was found to have:

- a. Sound internal quality assurance systems and procedures for the assurance of quality standards.
- b. Procedures applying effectively at each Depth of Knowledge level to ensure the quality of individual curriculum.
- c. Effective and regular processes of reviewing the quality of programs and the standards of curriculum and implementing required changes, developments and enhancements.
- d. Accurate complete and reliable information about the quality of the institution programmes and the standards of its curriculum.

Through accepting this Unconditional Quality Assurance Accreditation, NMIOTC undertook the responsibility to continue striving for improvements on internal quality assurance and further enhancing efforts to define and follow academic standards and Best Practices.

We stand ready to welcome allies and partners to our training programs and initiatives, in order to contribute to the combined effort of developing solutions and addressing current and emerging global security challenges. Working together with the MIO experts will enhance the readiness, capability and capacity of allies and partners to achieve mission objectives while conducting interdiction operations.

NMIOTC Commandant's Editorial

The maritime environment is characterized by complexity and diversity. By its very nature it offers abundant freedom to seafarers, but it is also vulnerable to activities threatening Nations interests and the free flow of world commerce. Terrorist movements or support to them, illicit trafficking, piracy and the proliferation of Weapons of Mass Destruction are just few examples of illegal activities that may be conducted from or through the sea. The threat emanating from the sea has a global reach and the defense against it is a challenge for NATO member nations and partners to meet.

Global security challenges like those mentioned above, have led the Alliance to seek for new capabilities, which have resulted in new training requirements. In the field of Maritime Interdiction Operations (MIO), NMIOTC responds to these requirements and leads the effort throughout the Alliance and beyond, aiming to improve the capabilities of allied and partner naval units in conducting interdiction operations that will address a wide range of maritime security challenges.

The Centre, as part of the Alliance's transformational network, not only trains naval units and specialized teams on MIO, but also provides SACT with proposals for new doctrines, tactics, methods and equipment on a wide operational range. Our aim is to develop a diverse and highly effective Maritime Interdiction Operations workforce, via training, education and mentoring, and by providing opportunities to operational teams and individuals to gain experience and realize their full potentials. By embracing NATO standards, and emphasizing on innovation and experimentation, as well as simulation and modeling, NMIOTC contributes directly to force integration and improvement of interoperability for the Allied and emerging partners, while forging a law enforcement culture, through proper training on international law.

In order to achieve these goals and produce the highest quality NATO Education and Training, NMIOTC required improvements to internal assurance processes, and procedures were reviewed and identified as quality assurance elements aligned with NATO Minimum Quality Assurance Criteria, in a process of constant improvement that started in 2012.

*“If you want to go fast go alone.
If you want to go far go together”*

old African Proverb



LEGAL ISSUES

Legal Considerations on Modern Piracy at Sea

by Corrado Campana
Commander ITA N

Before the 2000s, piracy and armed robbery against ships were concentrated in the Far East, particularly the waters of the South China Sea and the Straits of Malacca. Between 2006 and 2007, just when the number of Southeast Asian incidents started to decrease, the number of reports relating to Somali piracy began

to rise dramatically, and still today Somali piracy is a phenomenon that continues to menace the world trade on a strategic sea line of communications, threatening innocent seafarers with injury and death, and costing billions of dollars in counter-piracy measures, ransom payments, and re-routing. Dozens of states, under different Coali-

tions, have provided significant naval and military assets to contribute to the protection of merchant shipping in the waters off Somalia, though the international effort and naval action against Somali pirates has not been free from complications and challenges, particularly in terms of the legal aspects. The international law relating to maritime

piracy is not indeed a model of clarity in terms of issues such as the identification of the crime, the arrest, detention, and prosecution of suspects and the protection of human rights of both victims and criminals.

Article 15 of the 1958 Geneva Convention on the High Seas (HSC), and Article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), provide the world community with what today is generally accepted as the definition of the high seas crime of piracy. In accordance with these articles, it may be said that for an act to be considered piracy under international law, the following conditions must be met:

- The act must be an illegal act of violence, detention, or depredation (the “illegal violence rule”).
- The act must be motivated by private gain (the “lucri causa rule”).
- Two ships must be involved in the incident – the victim ship and the pirate ship (the “two-ship rule”).
- The act must be committed on the high seas or waters outside the jurisdiction of any state (the “high seas rule”).

When examined in the light of pirate attacks, these conditions were often the subject of some controversy and considered as frustrating complications when attempting to identify the crime. The first element on the above list is straightforward. All pirate attacks are illegal acts of violence since these are committed by elements other than naval forces or other public instruments of violence sanctioned by the state.

With regard to the second point, there is controversy on whether the reported attacks are motivated by private gain or by public gain. Indeed, some argue that the two are not necessarily mutually exclusive. In fact, private aims always constitute an important part of public aims, because public aims cannot exist without individuals. If a person truly associates himself with a particular group, the aims of this group are also his individual aims.

The third point constitutes the “two-ship rule”, which means that for an act to

qualify as piracy under UNCLOS, both a pirate ship and a victim ship must be present. In actual fact, even in the case of Somali piracy, purists might argue that despite the use of mother ships to extend the range of pirate boarding teams, most victim ships are boarded by perpetrators using skiffs or other small boats, in some cases also rubber boats, which are not, strictly speaking, ships.

Finally, the fourth point listed above means that, depending on how Article 58 (“Rights and Duties of Other States in the Exclusive Economic Zone”) and the concept of “high seas” in Article 101 (“Definition of piracy”) of UNCLOS are interpreted, the act would need to have occurred either outside the 12 nautical mile limit (i.e., beyond



the territorial sea) or as far out as 200 nautical miles from shore (i.e., beyond the exclusive economic zone). To this aim, piracy could seem to have been virtually eliminated when UNCLOS pushed the high seas to as much as 200 nautical miles from shore, though the most recent legal orientation seems to consider the 12 nautical mile limit of territorial waters for the purpose of identifying piracy acts. In its maritime security deliberations, the International Maritime Organization (IMO) circumvents the complication posed by the

UNCLOS definition of piracy by resorting to the expanded construction “piracy and armed robbery against ships”.

IMO, in its Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery against Ships (January 2002), defines armed robbery against ships as “any unlawful act of violence or detention or any act of depredation, or threat thereof, other than an act of piracy, directed against a ship or against persons or property on board such a ship, within a State’s jurisdiction over such offences”. One crucial implication of identifying an act as piracy under UNCLOS is that it gives any state the option to claim universal jurisdiction by invoking Article 105 (“Seizure of a pirate ship or aircraft”), according to which “every State may

seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith”.

Until recently, this remained mainly a hypothetical option because most reported attacks did not meet the UNCLOS criteria as they occurred within the territorial seas of a coastal state, so by the early-2000s the concept of “universal jurisdiction over piracy” was largely considered to have little or no modern relevance.

As said, until recently. Until the recent outbreak of piracy phenomenon off the coast of Somalia, where most attacks from the mid-2000s onwards have been reported outside what would theoretically be Somalia’s exclusive economic zone. However, while attacks by Somali pirates

LEGAL ISSUES

easily fall within the UNCLOS definition, which is therefore perfectly adequate to deal with the present situation, states tackling the maritime criminal phenomenon in the Horn of Africa still face numerous challenges.

The nominal availability of universal jurisdiction for piracy does not actually lead to put an end to impunity for this crime. Because the exercise of universal jurisdiction over piracy cases is only a recent phenomenon, state practice is still in a very early and inefficient stage of development. The necessary procedures and facilities to ensure arrest and prosecution, detention, extradition, and imprisonment are barely in place.

Arresting states often transfer suspects to third states, like Kenya, which has prosecuted several piracy cases with no clear Kenyan interests involved. There is an obvious strain on the country's resources, resulting in backlogs that not only delay justice, but also weaken the arrests' deterrent effect. On the other hand, trials in the courts of arresting states, possibly located thousands of miles from the actual theatre of operations, are no more efficient, not only because of the obvious delay in transporting the suspects but also for the difficulty of assembling witnesses based in different countries around the world. In the worst case, insufficiencies in the domestic legislation of arresting states or unwillingness to commence domestic criminal proceedings leave the naval forces of these countries no choice but to release the alleged perpetrators soon after they are captured. The UN Security Council, in its Resolution 1851 (UNSC Resolution 1851 on the Situation in Somalia, December 2008), noted with concern "that the lack of capacity, domestic legislation, and clarity about how to dispose of pirates after their capture, has hindered more robust international action against the pirates off the coast of Somalia and in some cases led to pirates being released without facing justice".

Achieving clarity in the international law and in the legal framework of maritime piracy is of primary importance to provide a fast relief from one of the most deplorable scourges affecting the shipping industry, and the NMIOTC is proud to contribute to this aim with activities carried out within NATO and cooperation programs such as Pfp, MD and ICI.

Evidence handling and crime-scene preservation also represent a crucial area that requires improvement. With naval forces being deployed to deter and arrest pirates, rather than coast guard or constabulary forces, it is not surprising that evidence collection has been focused on intelligence gathering and maritime target development, rather than on building a criminal case against suspected pirates. This lack of skill and knowledge in gathering and handling evidence has affected its admissibility before the courts and, in some cases, allowed pirates to avoid punishment.

Another contributory factor to inefficiency in arrest and prosecution under the current regime of universal jurisdiction over piracy cases is the failure to fully observe the

human rights of the suspected pirates. It is not rare that criminal prosecutions fail because arrests, investigative steps or handovers are carried out not in full adherence of human rights. Even though the legal instruments governing counter-piracy operations do not explicitly mention the applicable human rights norms, these activities cannot be exercised in a legal vacuum, and the already mentioned UNSCR 1851 states that "any measures... shall be undertaken consistent with applicable international humanitarian and human rights law".

A further issue is the question whether arrested piracy suspects are entitled to protections under the law of armed conflict and international law in general. To this question M. Bahar, former Staff Judge Advocate for the Nassau Strike Group during the US Navy's first capture of suspected pirates, gives the following answer: "Pirates are not combatants or enemy prisoners of war, but they are international maritime criminals entitled to international and constitutional due process protections" (M. Bahar – "Attaining Optimal Deterrence at Sea: a Legal and Strategic Theory for Naval Anti-piracy Operations").

To make a complicated situation even more complex, it has been recognized that a significant number of pirates are actually only 15 years old or younger, and this brings into the picture another important area of treaty law, such as the International Convention on the Rights of the Child (1989) and the Worst Form of Child Labour Convention (1999).

Because global trade and commerce are dependent on safe and efficient maritime transport, it is in every state's interest that the fight against piracy is given the best chances for success by ensuring that operations remain legally and morally beyond censure.

For sure, the problem of Somali piracy can only be solved by long-term measures to restore political, social, and economic stability in Somalia, though in terms of immediate relief the international effort consisting of the multinational naval forces deployed off the Somali coast has been and continues to be of paramount importance. Unfortunately, because of the nature of the crime any counter-piracy operation faces huge challenges, not

least in terms of the relevant international legal aspects.

A key to the effectiveness of the effort seems to be the improvement of levels of cooperation among all the actors, and in particular military forces, national police organizations, Interpol, merchant ship operators and crews, plus of course legal capacity building in the states affected by piracy.

Achieving clarity in the international law and in the legal framework of maritime piracy is of primary importance to provide a fast relief from one of the most deplorable scourges affecting the shipping industry, and the NMIOTC is proud to contribute to this aim with activities carried out within NATO and cooperation programs such as Pfp, MD and ICI.

LEGAL ISSUES

Commander Corrado Campana

Commander Corrado Campana attended the Italian Naval Academy from 1987 until 1991, when he was commissioned as Ensign. He has achieved the qualification in Naval Artillery and Missile Systems and the specialization in Naval Weapons Direction. He served onboard several Italian Navy ships such as the frigates Libeccio and Maestrale and the destroyers Ardito and Luigi Durand de la Penne, and was appointed as Commanding Officer of the auxiliary ship Ponza and of the frigate Granatiere. He served in international staffs such as the Force HQ of the Multinational Force and Observers (M.F.O.) in El-Gorah (Sinai, Egypt) as Naval Advisor, and the EU Naval Force OHQ in Northwood (UK) as ACOS CJ3 Operations within the anti-piracy Operation ATALANTA. He served in national staffs such as the Command in Chief of the Italian Fleet as Head of the Artillery and Missile Systems Section, the Command of Italian Maritime Forces in Taranto as ACOS N3 Operations and at the Italian Joint Operations HQ in Rome, as Head of Maritime Operations Section (J3). He attended the Italian Joint War College and the Course in International Humanitarian Law at the Centre for Defence High Studies in Rome and also served as Tutor for the attendees. Commander Campana has achieved the Degree in Maritime and Naval Science at the University of Pisa, the Degree in Political Science at the University of Trieste, and the Master in International and Military-strategic Studies at the L.U.I.S.S. University "Guido Carli" in Rome. Since the 1st August 2013 he is appointed at the NATO Maritime Interdiction Operational Training Centre in Souda Bay, Crete, Greece as Director of the Training Support and Transformation Directorate.



Criminal Procedural Rights in the Preliminary Inquiry of Unlawful Acts against the Safety of Maritime Navigation

by Christos Tsiachris¹

In addition to their military tasks, naval forces are used by states in law enforcement operations on the high seas in an effort to suppress various unlawful acts. For example, the 1988 Convention for the Suppression of Unlawful Acts of Violence against the Safety of Maritime Navigation (SUA Convention) and the 2005 Protocol to it (SUA Protocol) define a list of violent crimes which constitute a serious threat for maritime navigation. Each State Party to the SUA Convention and Protocol undertakes the responsibility to prosecute the alleged perpetrators of these crimes and to take necessary measures in order to establish its jurisdiction over those crimes.

The prosecution of alleged perpetrators of unlawful acts of violence against the safety of maritime navigation may prove problematic in many cases. At first, there are many ways of establishing jurisdiction, described in Art. 6 of the SUA Convention, hence it is possible that more states have established and are willing to exercise their jurisdiction over the same offence at the same time (concurrent jurisdiction). Interested states may either agree in the prosecution of the alleged offender by one of them or disagree. The decision on which state will eventually prosecute the alleged offender may prove crucial, because criminal law is not uniform in all states. Depending on the national criminal law that will eventually be applied, the outcome of the prosecution may be different.

Serious problems may also arise, if there is no compatibility between the different national legislations that will apply to each stage of the criminal procedure. For example, Art. 7 of the SUA Convention provides that a state, which takes into

custody a suspect, shall either prosecute or extradite him. In any case, this state shall immediately make a preliminary inquiry into the facts, in accordance with its national legislation. Consequently, during the preliminary inquiry, this state will apply its national criminal procedural law, which contains rules on the collection of evidence and recognizes certain rights to the suspect. In case that this state decides to extradite the suspect to another state, by the time that the suspect is extradited a different national law is applicable.

The aforementioned progress of a criminal case may raise legal issues during the trial of the suspect in front of a national court. The alleged offender may submit an objection against the use of proofs collected during the preliminary enquiry or may claim that the whole procedure shall be declared as invalid by the court, because his rights were violated during the preliminary enquiry. These objections may be based in the fact that the criminal procedural rules followed by the state that took him into custody and conducted the preliminary enquiry are not compatible with the criminal procedural rules of the state where the case is being judged.

The aforementioned situation may rarely occur because criminal procedural rules are similar in many states. This may be attributed to the provisions of international and regional instruments of human rights, such as the International Covenant on Civil and Political Rights, the European Convention of Human Rights, the African Convention of Human and Peoples' Rights etc. Nevertheless differences still exist and may be used by alleged offenders not only in front of courts but also during preliminary inquiries.

Safeguarding the criminal procedural

rights of the suspect is always a challenging issue, especially in the context of Maritime Interdiction Operations, when the preliminary inquiry has to be conducted by Navy officers' onboard warships. Under these circumstances, special care must be taken, in order to avoid the preliminary inquiry to be declared invalid by a court.

For example, if an alleged offender of the SUA Convention gets arrested by the Hellenic Navy in the Indian Ocean, the Hellenic Navy officers must immediately conduct preliminary enquiry, according to the Greek law. Given that:

- according to Art. 6 of the ECHR "Everyone charged with a criminal offence has the following minimum rights: [...] (c) to defend himself in person or through legal assistance of his own choosing or, if he has not sufficient means to pay for legal assistance, to be given it free when the interests of justice so require [...]" and

- according to Art. 96, 98 and 100 of the Greek Code of Criminal Procedure, the accused has the right to be represented by up to two defence lawyers during the preliminary enquiry, it is profound that the preliminary inquiry will be invalid, if the suspect has asked to be represented by a defence lawyer and he was not been provided with at least one. But, is it possible for officers conducting a preliminary inquiry to appoint a defence lawyer to a suspect, when the warship sails in the middle of the Indian Ocean?

Likewise, problems may occur as far as the transfer of the suspect to the judicial authorities is concerned. According to Art. 5 par. 3 of the ECHR "Everyone arrested or detained [...] shall be brought promptly before a judge or other officer

authorised by law to exercise judicial power and shall be entitled to trial within a reasonable time [...]". Each national law also contains provisions on the time that is allowed to the law enforcement agents in order to transfer and present suspects to the judicial authorities. Moreover, each national court may interpret in a different way the term "reasonable time". A certain time period that may be justified according to a state's national law may be a violation of the suspect's rights according to another state's national law. In the case of Maritime Interdiction Operations on the high seas, what is the deadline for a commandant of a warship to present a suspect to the judicial authorities? When does a delay constitute a violation of the suspect's criminal procedural rights? The European Court of Human Rights has issued a relative decision [Rigopoulos v. Spain, 37388 (dec), 12 January 1999] on the issue. It reflected on when, under certain circumstances, the period involved between the arrest of a suspect on the high seas and his appearance before a judge is excessive or non-excessive.

Concluding, the answer to these and similar questions is quite difficult and depends on various factors. Since no uniform criminal procedural law exists, the best solution for Navy officers involved in preliminary inquiries on the high seas would be to apply their national law taking into consideration, if possible, the international legal standards on criminal procedural rights, which derive from international conventions on human rights and the case law of international courts.

The aforementioned issues are among those that will be discussed during the upcoming NMIOTC Pilot Course 9000 "Legal Issues in MIO" and NMIOTC Annual Conference 2014 "Building a Law Enforcement Culture at Sea for a more Secure Maritime Environment".

LEGAL ISSUES



1. Judge at the Military Court of Chania and Guest Instructor of Law at the NMIOTC (e-mail: c.n.tsiachris@army.gr)

Maritime Piracy: *a laboratory for information exchange challenges*

by Peter Vergauwen

Europol Operations Department Senior Specialist

Acts of maritime piracy off the coast of Somalia and in the Gulf of Aden have, since 2008, seriously affected the maritime right to free passage and have impacted on European interests, and those of the International Community at large. The sudden surge in piracy cases and the absence of any credible local law enforcement capability to investigate and to prosecute these local criminal networks in the Horn of Africa forced European and other law enforcement agencies to take action.

On the initiative of the Dutch police authorities, Europol organised in June 2009 an expert meeting on maritime piracy during which a number of participating member States expressed provisional interest in participating in an Europol intelligence project on the subject matter. During a following operational meeting in July 2009 three EU Member States with on-going investigations into hijackings of vessels off the coast of Somalia compared their data. The initial assessment of these European investigations indicated that there were numerous links between the separate cases. As such, it seemed that the initial national investigations were looking at the same target group and that each separate investigation held a different piece of the investigative puzzle which could lead to

the identification of the culprits. The obvious logical step was to launch a common analysis project (or analysis Work file) under the auspices of Europol with the aim to support the competent investigative authorities of the Member States. On 13 July 2009 Europol received a formal request (dd. 11-07-2009) of the Dutch competent authorities to open an Analytical work file (AWF) on the subject of piracy and consequently the project was formally and officially opened by the Director of Europol in March 2010.

This common analysis project, currently known as Focal Point (FP) Maritime Piracy provides support to the participating services through collecting and analysing information concerning criminal, suspects, associates and contacts, their victims and persons providing information on the criminal behaviour in relation to piracy activities, armed robbery at sea and linked crime areas.

The purpose of the FP is to support the competent authorities of the Member States, as mentioned in 3 of the Europol Council Decision and the Annex to Article 4, in preventing or combating crimes committed or likely to be committed in the course of armed robbery at sea and piracy¹ activities against life, limb, personal freedom or property, and related criminal

offences associated with armed robbery at sea and piracy perpetrated by individuals, groups, networks or organisations.

In parallel to the Europol activities, the Dutch authorities equally approached Euro-just with a request to assist in setting up a judicial coordination between the different involved EU prosecution services. Under the guidance of the Dutch national desk at Euro-just and on the initiative of the Dutch national prosecution service Rotterdam, Euro-just organised a series of coordination meetings which brought together the various involved judicial authorities. As a result of the continuous consultation between the different judicial authorities, the prosecution services of Germany and the Netherlands decided to set up a Joint Investigative Team (JIT) with investigators from the Dutch Koninklijke Marechaussee, the German Landes Kriminalamt Nieder Sachsen and the German Bundes Kriminalamt, supported by the Europol analytical support team, FP Maritime Piracy. The JIT, code name Operation NEMESIS was formally set up to run from 01 January 2012 to 31 December 2013 and was hosted from the start in January 2012 to June 2013 in Europol HQ in The Hague.

When in Spring 2009 the Dutch national crime squad contacted Europol to discuss

the possibility to open an analysis project on maritime piracy the first reaction of a number of senior managers was that given the geographical scope of this crime phenomenon surely Interpol would be in the lead. As a matter in fact, Interpol had a project on maritime piracy called BADA which was more of a strategic nature. Equally, some member states expressed their concerns regarding the mandate of Europol in dealing with this phenomenon and the possible overlap with Interpol activities.

Events were happening at a high pace in the Gulf of Aden and in the Somali Basin and EU law enforcement professionals were in need for a secure platform for common analysis, expertise and coordination. Given the urgent need and seeing this project as an opportunity to deepen and to strengthen the organisations' strategic commitment towards cooperation with Interpol, the Europol senior management decided to commit resources to establish an analytical project on maritime piracy.

The initial assessment on the available information made it clear that this analytical project would be somehow different than the traditional projects, whereas EU law enforcement agencies would be the main providers of information towards the project. In Fact, besides the traditional information flow coming from the EU law enforcement agencies, it became apparent that in dealing with this phenomenon, the project had to establish links with various partners such as Interpol, the military and other organisations.

Senior level management of both organisations, Europol and Interpol have over the years expressed their will to better cooperate in order to make a coherent service offer to their respective member countries. Sterile competition between organisations would not advance the fight against maritime piracy or organised crime at large, whilst at the same time this could be considered as a waist of police resources. As from the start of this project it was clear for the project management that a close cooperation with Interpol would be vital to secure a "window on the world". Clearly, from the perspective of the Europol Focal Point Maritime Piracy, Interpol could serve



as a gateway to local jurisdictions and law enforcement agencies in the region. The reality of the matter is that a lot of information and intelligence that could be useful to develop operational analysis for the participating EU services is available within law enforcement agencies in The Seychelles, the Republic of South Africa and others with which Europol or other EU law enforcement agencies has no formal contact or cooperation agreement whatsoever. Since Interpol and Europol have established a full operational cooperation agreement, there are no formal obstacles for Interpol to join a Focal Point group. In March 2010 Interpol became a full operational member of the Focal point Maritime Piracy. As from the start Interpol became one of the main contributors to the analysis project but at the same time both organisations became aware of the limitations of the cooperation. As Interpol was providing (useful) information that could be cross checked and linked to information available in Europol, it was not always possible for the latter to provide Interpol and its membership a clear and comprehensive answer. In fact, EU law enforce-

ment agencies, providing information to a Focal Point within Europol remain owner of that information and can exercise control on the distribution of that information through the use of the so called Handling Codes². As some EU law enforcement agencies were clearly hesitant to share information and intelligence analysis with non-EU counterparts through the Interpol channel, Europol could not always provide "enriched" information back to Interpol to share with its non-EU members. Having similar functionalities and missions, both organisations serve only partly the same audience and one can only understand that Interpol choose to develop its own analytical capability with the "Global Maritime Piracy Database" which on the surface may look like a duplication of efforts but is in fact a tool for Interpol to deliver added analytical value to all its members. Big is beautiful, is maybe not always true but as far as operational analysis is concerned this is definitely the case. To date, in terms of size the Europol project database contains some 60.000 entities generated by contributions stemming mainly from EU law enforcement agencies and

1. Piracy is defined by the United Nations Convention on the Law of the Sea (UNCLOS) as:
a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or passengers of a private ship or a private aircraft, and directed
i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;
ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;
b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;
c) any act inciting or of intentionally facilitating an act described in sub-paragraph a) or b)
Piracy is considered to occur in international waters while Armed Robbery at Sea occurs in territorial waters or in port.
The Europol Secure Information Exchange Network Application (SIENA) foresees three handling codes

2. The Europol Secure Information Exchange Network Application (SIENA) foresees three handling codes
H1: This information must not be used as evidence in judicial proceedings without the permission of the provider.
H2: This information must not be disseminated without the permission of the provider
H3: Other restrictions apply

creating some 600.000 links, by which this database is by far the biggest repository of relevant maritime piracy information available directly to the (EU) law enforcement community.

Already, in December 2008 the European Union (EU) launched the European Union Naval Force (EU NAVFOR) Operation ATALANTA within the framework of the European Common Security and Defence Policy (CSDP) and in accordance with relevant United Nations Security Council Resolutions and International Law. This move came in response to the rising levels of piracy and armed robbery off the Horn of Africa and in the Western Indian Ocean. Besides this EU military operation other military operations and taskforces, such

as operation OCEAN SHIELD, Task Force 151 and Coalition Maritime Forces are active in the Somali area of operations, with or outside the framework of NATO and with slightly different mandates.

The ATALANTA mandate has over the years undergone some minor adjustments but basically aims (1) to protect vessels of the World Food programme (WFP) and supply ships of the African Union Mission in Somalia (AMISOM) (2) to deter, prevent and repress acts of piracy and armed robbery off the Somali coast (3) to protect vulnerable shipping off the Somali coast on a case by case basis (4) to contribute to the monitoring of fishing activities off the coast of Somalia³

Looking at the ATALANTA and other mili-

tary mandates one can only say that these missions are essentially of a constabulary nature, meaning that these operations are mainly focused on maintaining good order at sea. Clearly the information that is generated by a constabulary mission will always contain elements of information that are of interest for further investigation by judicial authorities.

From day one, Europol has pursued an active policy in trying to establish (in-) formal working relations with the Intelligence branch of ATALANTA operational HQ. In the absence of any formal, legal framework this cooperation was based on the positive attitude and the professionalism of all actors involved. Equally the "European" political framework of ATALANTA was conducive for a proactive approach towards a police/military cooperation which was greatly helped by the efforts of the UK Europol national Unit which played a vital legal role as information hub between ATALANTA and Europol. In terms of information exchange/cooperation with other military actors much remains to be done.

Reflecting back on five years of counter piracy activities Europol believes that it has provided a meaningful contribution in combating this phenomenon by delivering relevant and dedicated analytical products and information exchange support. At the same time this phenomenon has compelled organisations, both police as military to enlarge their traditional partnerships with new actors. This cooperation has had its hiccups and flaws but in general all stakeholders involved have learned from each other and have, over the years, improved their information exchange routines and have thus enhanced their operational performance.



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After a four year stay in the Belgian Army as a commissioned officer in the Regiment Paracommando, he joined the Belgian Federal Police in 1991 where he currently holds the rank of Superintendent.

Following the 9/11 attacks, he joined Europol serving as a terrorism specialist in the Counter terrorism Task Force until December 2006. In 2008 he served as Team Leader in the International Criminal Court and in 2009 he re-joined Europol where he currently serves as a Senior Specialist within the Operations Department, dealing amongst other topics with maritime piracy.

Peter Vergauwen has been married for 23 years and has three children. In his spare time he has a keen interest in martial arts (Judo and Brazilian Jiu Jitsu).

3. Council decision 2010/766/CFSP of 7 December 2010 amending Joint Action 2008/851/CFSP



Maritime Stability Operations: An Overview

by Dr Phyllis Michalas
US MCAST

Understanding Maritime Stability Operations

This article provides an overview to the unique aspects of the maritime stability operations.

Operating from the sea, naval services extends influence over land to ensure that the maritime commons and its structures support the safe flow of commerce and contribute to good governance. Also, by denying those who wish to engage in illegal activity, using the maritime domain, the Naval Service contributes to stability. The naval forces' primary contribution to stability operations is the provision of maritime security, associated with protecting populations and maritime resources, while strengthening governance in ways that promote economic and political progress. Naval forces may also

support other stability-related functions, such as providing humanitarian relief and emergency reconstruction of key infrastructure.

Maritime operations are distinct from other military operations in three aspects –maritime domain, maritime laws and force authority.

The principal distinction between the Naval Service and the other Armed Services is the area of operations. The Naval Service operates primarily within the maritime domain, which consists of the oceans, seas, bay, estuaries, islands, coastal areas including the littorals. The significant distinction between maritime domain and maritime environment is the inclusion of the term littoral, which is comprised of two parts –the seaward portion and the landward portion. The

seaward portion is that area from the open ocean to the shore that must be controlled to support operations ashore. The landward portion is the area inland from the shore that can be supported and defended directly from the sea¹.

Approximately eighty percent of the 193² countries of the world are maritime nations linked together by the seaward portion of the maritime domain. Naval operations in this area are subject to tidal variations, weather, water depth, current, and corrosive influence of salt water. Many nations dispute territorial boundaries with their maritime neighbors. Tens of thousands of commercial maritime vessels, the backbone of the global economy, transit the global commons daily. Often maritime geography, such as straits or canals, concentrates seagoing

1. *Naval Operations Concept 2010 - Implementing the Maritime Strategy* (pdf), US Naval Service. p. 16, Retrieved 7 May 2012.

2. There are 193 members of the United Nations. Unfortunately, the number 193 is too often used to represent the number of countries in the world. Although this number represents almost all of the countries in the world, there are still independent countries such as the Vatican City and Kosovo, that are independent and are not members of the U.N. so 193 is not the number of countries in the world.

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vessels into restricted spaces, creating additional challenges. The combinations of water, land and airspace, as well as space and cyberspace, conspire to present unique operational challenges to naval forces.

Maritime Stability Operations: A Legal Understanding

Maritime law is another important distinction in maritime stability operations. Domestic law includes the legal statutes of the coastal state that apply within their maritime jurisdiction. International law includes both customary international law stemming from various treaties and conventions to which a nation is signatory³. Often participating nations will enter into bilateral agreements for cooperation in suppressing activity such as illicit trafficking of narcotics and humans. The underling concept of the law of the sea is based on freedom of the seas, with a nation's control of the oceans limited to narrow bands adjacent to its coasts. This core element establishes standards by which forces operate in the maritime domain with respect to sovereign rights of coastal states and freedom of navigation of all states. It is a critical element. The international instrument regulating the

uses of the seas and maritime rights of the world's nations is the 1982 LOSC. Although not a party to LOSC, the United States recognizes the LOSC's navigational provisions reflect customary international law⁴.

The world's oceans are divided into two parts with each containing various maritime regimes or zones under international law. The first are national waters –internal waters, territorial seas and archipelagic waters. These national waters are subject to territorial sovereignty of coastal nations, with certain navigational rights reserved to the international community. The second are international waters –contiguous zones, waters of the exclusive economic zone (EEZ), and the high seas. In international waters, all nations enjoy the high seas freedoms of navigation and over flight, which include the right to conduct military operations in these waters.

The Current Maritime Environment and Sources of Instability

Today's economy increasingly relies on the world's oceans. More than 80 percent of the world's trade travels by water. About half of the world's trade (by value) and 90 percent of the world's general cargo are

transported in containers embarked upon seagoing vessels. Thirty mega ports and cities spread across Asia, North America and Europe constitute the world's primary, interdependent trading complex. Seventy-five percent of the world's maritime trade and half of its daily oil consumption pass through international straits and canals⁵. A stable maritime environment contributes to global safety and security. The stability of the maritime domain is challenged in many ways by a variety of actors. These actors can be grouped as nation states, terrorist and transnational criminals and pirates. For example, events over the past decade – the tsunami that struck the east coast of Japan (2004); the 11 September 2001 terrorist attack of the US; and the 2011 uprisings in North Africa and the Middle East –represent the complex challenges affecting the security environment. Additional maritime challenges, such as natural disasters, environmental destruction, and illegal seaborne migration are also maritime sources of instability.

Traditional State Challenges

There are global and regional powers exhibiting nationalism and assertiveness that test the resolve of the United States and its partners. For example, the dynamics in Asia and the Middle East may challenge regional stability. Some states provide safe havens for criminal and terrorist organization that use these countries as bases of operations to export illicit activities through the maritime domain and into other areas of the globe. An alternative danger is that a foreign state will provide critical advanced conventional weaponry, components of weapons of mass destruction (WMD), delivery systems and related materials. The WMD issues are of great concern because the maritime domain is the most likely venue to accommodate the transport.

Terrorist Challenges

State-sponsored terrorists, terrorist groups, and nonstarter actors exploit open borders, challenge the sovereignty of nations, and increasingly threaten international affairs. Successful at-

tacks in or through the maritime domain provide opportunities to cause significant disruption to regional and global economies. Today's terrorists are increasing their effectiveness and reach by establishing links with other like-minded organizations around the globe. Some terrorist groups have used shipping as a means of conveyance for positioning their agents, obtaining logistical support, and generating revenue. Terrorists have also take advantage of criminal smuggling networks to circumvent border security measures. The capabilities to board and commandeer large underway vessels –demonstrate in many piracy incidents–could also be employed to facilitate terrorist acts⁶.

Terrorists can employ a range of maritime attack capabilities from a variety of platforms, including, but not limited to:

- Explosives-laden suicide boats, light aircraft and submersibles
- Merchant and cruise ships used as weapons to ram and other vessel, warship, port facility, or offshore platform
- Commercial vessels as launch platforms for missile attacks
- Underwater swimmers to infiltrate ports
- Unmanned, underwater, explosive delivery vehicles
- Mines, which are low cost, readily available, easily deployed, difficult to counter, and require minimal training
- A vessel's legitimate cargo, i.e., chemicals, petroleum, can be used as the explosive component of an attack.

Transnational Crime and Piracy Challenges

The continued growth in legitimate international commerce within the maritime domain has been accompanied by growth in the use of the maritime domain for criminal purposes. The smuggling of people, drugs, weapons, and other contraband, as well as piracy and armed robbery against vessels, produces instability in the littorals and elsewhere. Piracy and incidents of maritime crime tend to be concentrated in areas of heavy commercial maritime activity, especially where there is significant political and economic instability, or in regions with little

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or no maritime law enforcement capacity⁷. Just as the world's oceans are avenues for a nation's overseas commerce, they are also the highways for the import or export of illegal commodities. Maritime drug trafficking generates vast amounts of money for international organized crime syndicates and terrorist organizations. Laundered through the international financial system, this money provides a huge source of virtually untraceable funds. These monetary assets can then be used to bribe officials, bypass established financial controls and fund additional illegal activities, including arms trafficking, human smuggling and terrorist operations. Furthermore, these activities can ensure a steady supply of weapons and cash for terrorist operatives, as well as the means for their clandestine movement.

Natural Disasters

Earthquakes, mudslides, hurricanes, and tsunamis are examples of natural disasters that often occur in the littoral regions of the world. Depending on the severity of the disaster, a regional or international response may be required. Naval forces, as a result of their forward deployed posture and their organic capabilities and in addition to their ability to remain offshore in international waters, are frequently provided to assist countries struggling to recover from a natural disaster.

Environmental Destruction

Intentional acts or acts of nature that result in environmental disasters can have far-reaching and negative effects on the economic viability and political stability of a region. In recent years competition for declining marine resources has resulted in a number of violent confrontations as some of the world's fishermen resort to unlawful activity. The most obvious **economic impact** of illegal, unreported and unregulated (IUU) fishing on developing countries is the direct loss of the value

of the catches that could be taken by local fishermen if the IUU fishing was not taking place. Available estimates place the economic loss of illegal fishing to be between \$10 billion to \$23 billion annually. In addition, there are indirect impacts in terms of loss of income and employment in related industries; any loss in income will also have impacts on the consumer demands of families working in the fishing industry⁸. IUU fishing can also lead to increased pressure on endangered fish species. IUU can directly affect the population of fish species by increasing the number of fish caught within the population in spite of population management efforts by the international community.

Illegal Migration

The unsafe transfer and smuggling of undocumented migrants is a long standing issue that will remain a major challenge to regional stability and probably grow in scope and severity as the number of failed or failing states increases. Transnational migration, promoted by a decline of social well-being or internal political unrest, has become common over the past decades and will continue to drive the movement of many people, with the potential to upset regional stability because of the strain that migrants and refugees place on fragile economics and political systems. In some countries, the collapse of political and social order prompts maritime mass migrations, such as what the United States has experienced from Cuba and Haiti or that Europe has experiences from North Africa. Immigration can also be used as a political tool such as mass migrations from Cuba to the United States that were unleashed by Fidel Castor. When mass migrations occur, the humanitarian and enforcement challenges presented by the response to such migrations require a significant commitment of maritime security resources.

3. Examples, United Nations Convention on Law of the Sea, also call the Law of the Sea Convention, [LOSC] and the 1974 International Convention for the Safety of Life at Sea [SOLAS].

4. United States Presidential Proclamation of March 10, 1983.

5. *Illegal Fishing Market Value-Havocscope Black Market*, Retrieved April 17, 2010.

6. *Global Challenges in Maritime Security, Institution of Engineering and Technology* [<http://www.theiet.org/sectors/transport/resources/maritime-security.cfm?type=pdf>].

7. Nelson, Rick, *Combating Piracy: Challenges and Opportunities for Regional and Private Sector Involvement*, CSIS, June 2012.

8. http://ec.europa.eu/fisheries/cfp/illegal_fishing/index_en.htm

Autonomous Vessel Protection Detachments

by Steve Sweeney & Mark Withycombe
Commanders US N

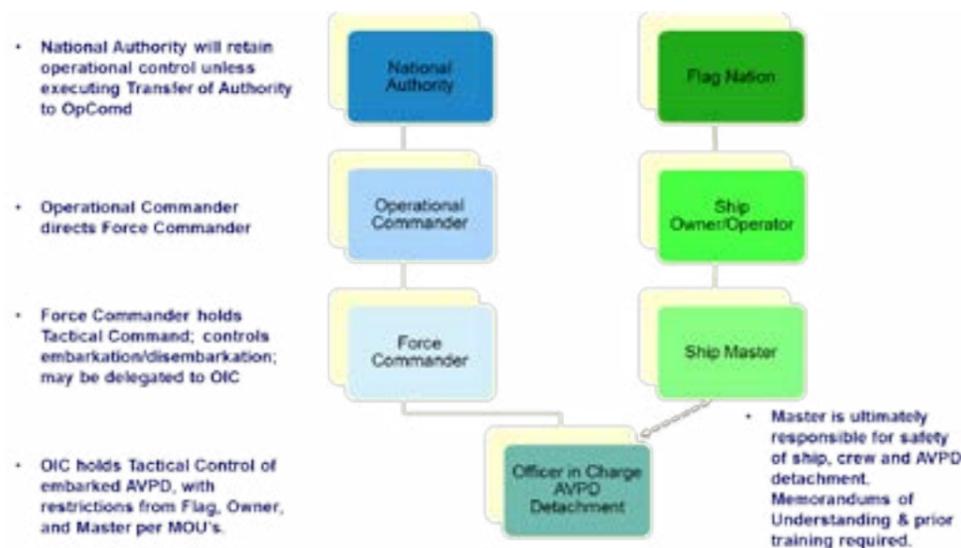
Piracy has, and always will be present in the maritime domain. Recent events have brought the problem of piracy to the attention of the international maritime community, who now fully recognize the threat to their strategic lifelines. The NATO Alliance, despite six decades of experience managing traditional conflict, finds itself faced with non-traditional asymmetric opposition at sea. Since the beginning of the upsurge in piracy, individual nations, NATO, EU, and the international maritime community have been actively seeking and discussing ways to address piracy. What has not yet been developed is guidance on how to address the government's option of developing and establishing an option at the tactical level.

An **Autonomous Vessel Protection Detachment (AVPD)** is a military team which will embark on a ship to provide security, protection and deterrence against piracy and armed robbery at sea. Teams will provide guidance to ship's Masters regarding the implementation and application of Best Management Practices (BMP), which the AVPD will complement to provide maximum protection. An AVPD will operate autonomously and will not rely on an assigned warship in company for immediate support. This provides military commanders' flexibility to task naval units in other distinct or complementary roles in maritime security operations. While there are a number of dealing with private security companies and the protection of ships, there is limited documentation referencing the military

option. This article, a condensed version of the original AVPD White paper published by CJOS COE, is designed to provide a general overview from which each individual nation can build on; and serves as a stepping stone in the future development of Counter-Piracy tactics.

Command & Control

The control of the AVPD will be done through the military channels. It is required that each AVPD uses their own chain of command and Rules of Engagement (ROE). The Officer in Charge (OIC) of the AVPD will hold tactical control of the detachment when embarked on a ship, with a robust ROE profile and Memorandums of Understanding (MOU's) that cover any restrictions imposed by the ship's Master, Owner, or Flag State.



It is important to note that the ship's Master is ultimately responsible for the safety of the ship, crew, and embarked AVPD detachment. Signed MOU's and prior coordination and training will be required prior to deployment.

Operational Considerations & Core Components

The AVPD must be a single fighting unit formed with personnel from the same nation; a mix of nationalities within the AVPD will significantly complicate integration between themselves, and with the merchant vessel crew. The OIC should be fluent in English (to communicate with the Master), and the detachment size is appropriately for the threat and vessel type. Capabilities should include global communications, medical corpsman, and a 24-hour watch schedule. Weapons embarked by the team are dependent upon MOU's and multi-lateral agreements between nations for possession, storage, security, and transit. The recommended cache should consist of weapons that are more accurate and longer-ranged than the typical pirate RPG/AK-47 threat, including sniper rifles, RPG's, machine guns, and hand guns. Non-lethal options such as specialized ammunition and weapons are also recommended.

Legal Considerations

The legal issues dealing with piracy is one of the largest concerns with any detachment. While operating under each nation's own ROE, AVPDs will need to be briefed and trained on current legal issues. It is imperative that specific MOUs or agreements are signed between the affected organizations, and states. These MOUs and agreements should cover as many anticipated scenarios as practical to safely and judiciously accomplish the mission. The MOU and agreements need to be coordinated through respective states of the ship's owner/company, the ship's Master, and the AVPD team and should include all relevant issues such as Command and Control (C2) relationships, weapons stowage and other administrative and operational subjects as their national legislation dictates. Additionally, there will need to be relationships developed through third-party countries which may aid in the logistical aspects of the movement of the AVPD. This will build the

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relationship and assist in any deliberation of possible actions taken by the AVPD.

Tactics: AVPD's as a Complement to BMP's

While there is a great utility for AVPDs aboard each merchant ship, it has to be emphasized that the ship must continually incorporate BMPs each time it goes to sea. AVPD tactics need to fully be integrated and coherent with BMP measures. It is the responsibility of both the ship and the AVPD to continually incorporate any new tactics to counter the continuous evolution of pirate operations.

The primary objective of the AVPD is deterrence - simply to keep pirates from boarding the ship or causing the ship any structural damage. When potential pirates see the presence of armed guards onboard the ship itself, they will most likely stay away completely. Deterrence is less effective at night, and therefore sentry positioning and lighting must be reviewed to optimize the deterrent effect.

Layered Defensive Zones



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In order to try and keep preservation of life as a high priority, the AVPD should employ non-lethal tactics against pirates. When the situation dictates, non-lethal measures need to be employed to the highest extent possible. Some non-lethal methods that are currently available include firing flares, using a long range acoustic device (LRAD), and use of fire hoses for close-in deterrence. Many of these techniques are currently listed in the current BMP.

Layered Defensive Zones

The use of a multi-layered self-defense zone is an appropriate way to address the overall defense of the ship; these areas will set a baseline for each individual AVPD to follow. While each situation will be unique, the determination of these zones will aid in the understanding and the execution of the ROE.

Surveillance Zone: Using a range of 6-12 miles, the AVPD and ship should be able to locate contacts within this range via radar, thermal imagers, and information gathered throughout all available means. This should include attention to NAVWARNS, a good VHF watch, and use of counter piracy websites. Lookouts and ship's personnel need to be trained to spot contacts that appear to be loitering, or maneuvering in a way that appears to be closing towards the ship in an aggressive manner. To aid all mariners in locating possible threats, each ship should relay possible pirates or their "mother ships" to each other through radio or other means of communications.

Alert Zone: This zone can be defined with a range of 1 to 6 miles –subject to the level of civilian traffic and the likely speed of the threat. With the main weaponry of pirates being small arms and RPGs, the immediate threat to the ship is still minimal. Visual surveillance or electro-optical imaging at night, combined with recognition of pirate activity through common identifiers (i.e. mother ships launching skiffs), leads the AVPD to exercise deterrence and becoming a hard target by showing that there is a military

presence onboard. AVPD personnel should begin by manning any sort of non-lethal weapon such as LRAD if available. It is important that the AVPD team members are in a position where they are able to have proper protection with appropriate exit routes in order to take up more defensive positions if needed. Civilian mariners and medical personnel should be prepared to evacuate areas outside the skin of the ship, such as a citadel or any other safe area of the vessel.

Warning Zone: At a range of 1000-2000 yards, just outside the practical range of a typical pirate RPG, the AVPD will be at a ready position to intercept or neutralize any sort of attack while maintaining a watch. The watch will need to identify positive visual threats such as weapons and offensive maneuvering of the pirate vessel. Depending on the indication by the suspected pirates, in accordance with ROE in force and by order of the AVPD leader, warning shots with live ammunition can thwart a potential attacker. Depending on the capability of the AVPD personnel and the situation, the use of a possible sniper shot could also be used to disable the suspected pirate vessel.

Intervention Zone: The last and most dangerous area occurs when an immediate pirate attack is happening. At this stage, the AVPD leader will ensure the detachment is properly armed, and in accordance with ROE, has authorization for the use of lethal force against the attackers. While unlikely, consideration must be given to actions if the attack is overwhelming, or the pirates successfully embark; whether to regroup or independently proceed to the citadel or safe area on the ship.

Finally, while not an actual weapon, the capability of an AVPD to get video and audio recordings of any sort of pirate attack or pre-attack could be beneficial in both legal and tactical matters. This footage will aid in any sort of legal action or conflict resolution scenarios taken against the pirates or the AVPD and serve as training aids for future teams. This

would also give up-to-date intelligence on current pirate tactics that could be distributed in a fairly quick manner to all interested stakeholders. Following any sort of pirate attack, it is the responsibility of the AVPD OIC and the ship's Master to follow the proper reporting procedures set through the BMP.

Training

Each individual nation will have to set up a training process to enhance the effectiveness of the detachment. The primary training will need to be scenario-based, threat relevant, ROE specific, and utilize current BMP's. While this training will need to focus on small boat attacks and defensive measures, each individual team will need to be current and proficient in the area of small arms, close quarters combat, and medical aid. Due to unique situations that result from each individual country's ROE, training should remain the responsibility of that individual nation; however employing a specific training group within each country will enhance the work of the units being deployed. Using a common background for training purposes based through a NATO organization would only be beneficial for the entire Alliance. Besides the focus on specific combat tactics, the AVPD team will need to be trained in maritime damage control (DC). Each individual member needs to understand basic DC functions aboard ships to include fire-fighting and flooding procedures. Also, with each ship's cargo being unique, it is important the AVPD understand different variances when dealing with the ship's requirements. For safety considerations, ships that are carrying oil or fuel will have different safety regulations than a ship which may be carrying food or other such cargo. The AVPD's understanding of these regulations will need to be addressed in early training and incorporated prior to the deployment onboard the ship itself.

Logistics

Determining who will pay the costs of travel and integrated expenses has to be determined by each individual country, shipping company, and organization responsible for the trip (i.e. United Nations World Food Program), or a combination thereof, which could be included in an MOU. The additional expenses incurred

by deploying active duty military members should be much less than what would be spent on private security companies. AVPD elements would have to be flown to a port city and deploy onboard the ship, be onboard a military ship, or fly from a land base via helicopter. Determining the proper way of deploying the detachment would be in the hands of the military commanders and the vessel's owner, with the proper diplomatic authorizations granted prior to the AVPD's deployment. One possible dilemma could be with the transfer of weapons. When a detachment is deployed and has a cache of weapons and gear, military members could have considerable problems getting through customs and other local authorities while traveling. A significant amount of paperwork will have to be completed through support activities and would need high level intervention if the situation dictates. To alleviate any of these issues, AVPDs should be deployed from military checkpoints or established Forward Logistic Sites (FLS) as much as possible. The AVPD must be capable of self-sustaining logistically and medically when embarked. In any case of a major casualty, the ship or the AVPD needs to have a pre-planned contingency process to communicate to the nearest warship with an available helicopter for evacuation. The exact scale of medical personnel and equipment will be defined by each nation, with training and skilled support taken into

consideration during the planning and pre-deployment

The shipping company operating the vessel should ensure sufficient accommodation and provision of food; meeting the minimum standard as stated by the nation of the AVPD. If this cannot be ensured, the AVPD must be able to operate without vessel food provision for a specific number of days and should be clearly stated prior to AVPD's embarkation of the ship. The capabilities of nearby naval units in the Area of Operations (AOO) to provide emergency support for accommodation, food, and transfer of the AVDP between the embarkation/disembarkation point and nearest Shore Base should be investigated and known. While each AVPD could be either in a shore base, onboard a Counter Piracy Task Force surface ship, or onboard the ship which it is protecting, it is the nation that the AVPD represents that is ultimately responsible for the AVPDs re-supply, training and ashore transport within the AOO.

Conclusion

In the current economic climate with

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insufficient traditional maritime forces available to address a burgeoning threat, the deployment of an AVPD to protect a merchant vessel is a viable, and possibly a more effective option. It shows political intent to keep the seas safe for a nation's mariners and could be a valuable contribution to coalition/alliance efforts. Each nation will constantly need to focus on education and training of current piracy operations and tactics. It is only safe to say that the tactics used by the pirates will continue to evolve, and each nation's respective AVPD teams will need to be able to evolve accordingly in order to maintain proper defensive tactics and manning.

The use of AVPDs will have an extreme benefit for ships transiting through troubled waters. NATO and the EU should consider developing a greater understanding regarding the legal implications to build on the capabilities for each nation. Developing specialized documentation and understandings with each nation will enable the military teams to fully understand legal issues to help with training efforts. Most of the work will need to be done through diplomatic means.



SECURING WEST AFRICA'S SLOC'S: APPLYING LESSONS LEARNT FROM COMBATING MARITIME PIRACY IN THE HOA REGION

by Dr Henry Fouche
University of South Africa

Introduction

In the 20th century the highest number of attacks against ships occurred in the territorial waters of states¹ and the hot spot for piracy, where most of the attacks were recorded by the International Chamber of Commerce's International Maritime bureau (ICC-IMB), was Southeast Asia in Indonesia, the Malacca Straits, Malaysia, the Philippines and Singapore Straits². In 2003 – 28 attacks against ships in the Malacca Strait, through which one-third of the global shipping trade and one-half of the world's cargoes pass, prompted the countries bordering the Strait, Singapore, Malaysia and Indonesia, to launch co-ordinated naval patrols of the Strait in July 2004, to stamp out piracy³. Nature also took a hand and in December 2004 piracy attacks in the Malacca Strait ceased due to the devastating Tsunami that wreaked havoc in North Sumatra with a large number of casualties on 26 December 2004. The pirates, like the rest of the population lost vital equipment and some even their lives⁴.

In 2005 attacks on ships carrying food aid to drought stricken Somalia prompted the International Maritime Organisation (IMO) to call on states, operating warships and aircraft in the vicinity, to assist in preventing such attacks⁵. In spite of this call however, the number of attacks on ships off Somalia continued to rise



drastically contributing to Africa becoming the new hot spot for piracy in 2007, with the number of attacks against ships off Africa, recorded by the ICC-IMB, for the

first time exceeding the number of attacks recorded in Southeast Asia⁶. Contributing to this record number of attacks off Africa in 2007 were, apart from 31 attacks off Somalia and 13 attacks in the Gulf of Aden, 42 attacks recorded against ships off Nigeria⁷.

For the ensuing five years, however, available resources, media attention and world focus on the problem of piracy in Somalia took precedence over the events relating to piracy and armed robbery of ships unfolding in West Africa and the Gulf of Guinea. The United Nations Security Council took cognisance of the inability of states to prevent the attacks off Somalia and in 2008 issued UNSC resolutions⁸, permitting states to enter the sovereign territory of Somalia in pursuit of pirates. What followed was an armada of warships from the European Union, NATO and individual states navies commencing patrols off the affected region. In a report issued in 2011 by the Special Advisor to the Secretary-General of the United Nations on legal issues related to piracy off the coast of Somalia⁹, it was reported that over half of the suspected pirates captured

by the navies patrolling off Somalia since 2008 were released without being prosecuted. The International Maritime Organisation's (IMO) guidelines for the investigation of piracy¹⁰, points out that the capture, prosecution and sentencing of pirates and perpetrators of armed robbery against ships is probably the most appropriate deterrent action against piracy available to governments. The failure to initiate prosecutions against many of the captured pirates highlighted the problems surrounding lack of domestic legislation and legal frameworks to prosecute. In response to this challenge The Contact group on Piracy off the coast of Somalia¹¹, (CGPCS) called on the international community to update existing legislation and other additional mechanisms to ensure that pirates are prosecuted. The group went on to make a call to all parties

to maximize efforts to preserve evidence and facilitate successful prosecution of pirate activity wherever possible¹². The special advisor on legal issues related to piracy off the coast of Somalia having concluded that the difficulty of assembling evidence as being the main reason why pirates escape punishment¹³.

Since 2008 a number of successful interventions, not the least of which was interdiction by naval vessels, and best practices applied by the international community in response to the UNSC resolutions to address the problem of piracy off Somalia¹⁴, led to a marked decrease in attacks in this region. In 2012 forty nine (49) attacks against ships were recorded off Somalia and for the first three months of 2013 only five incidents were recorded, including the hijacking of a fishing vessel which was intercepted by naval forces before the vessel could reach Somali and the crew freed¹⁵.

In contrast to the decrease and containment of the number of incidents off Somalia, a total of fifty five (55) attacks were recorded as having taken place in the Gulf of Guinea in 2012 with ten vessels hijacked and 15 attacks in the first three months of 2013 with three vessels hijacked¹⁶. What is particularly perturbing about the Gulf of Guinea piracy is that whereas the hijacking of vessels in the past was limited to the waters off Nigeria, these type of attacks have become transnational, occurring off Benin, Togo and in December 2012 and the first three months of 2013 off The Ivory



1. Barry Dubner in M.Meijja & P. K. Mukherjee, *Selected issues of law and ergonomics in maritime security*, Journal of International maritime law, 10(4) August-September 2004, pp. 301-325.
2. ICC-IMB Piracy and armed robbery against ships reports during the period 1992 to 1999.
3. Yale Global Online: Indonesia, Malaysia, Singapore Launch Coordinated Patrol of Malacca Strait- The Jakarta Post 20 July 2004 available online at <http://yaleglobal.yale.edu/content/indonesia-malaysia-singapore-launch-coordinated-patrol-malacca-strait> accessed 15/06/2013.
4. ICC-IMB Piracy and armed robbery against ships annual report, 1 January-31 December 2004, p. 25.
5. IMO Resolution A979 (24), Nov 23, 2005. Was subsequently revoked by resolution A1002 (25) IMO Doc. A1002(25) Nov 29.2007.

6. ICC-IMB Piracy and armed robbery against ships annual report 1 January-31 December 2007
7. Same as 4 above.
8. UNSC resolutions in 2008: 1816, 1838, 1846 and 1851.
9. Report of the Special Advisor to the Secretary-General on Legal Issues Related to Piracy off the coast of Somalia. Annex to UNSC S/2011/30 dated 25 January 2011, from the Secretary-General to the President of the Security Council of the United Nations, p. 21.
10. IMO Code of Practice for the investigation of crimes of piracy and armed robbery against ships. IMO Resolution A1025(26) adopted on 2 December 2009.
11. The contact group on piracy off the coast of Somalia, based on UNSC resolution 1851, held its first meeting in January 2009 and identified, amongst other, the task for itself to strengthen judicial frameworks for arrest, prosecution and detention of pirates. Congressional Research Service report: *Piracy off the Horn of Africa*, April 19, 2010. Available at www.crs.gov
12. Eleventh Plenary session of the contact Group on Piracy off the Coast of Somalia. New York, 29 March 2012.
13. Same as 10, p. 23.
14. ICC-IMB Piracy and armed robbery against ships, annual report, 1 January, 31 December 2012.
15. ICC-IMB Piracy and armed robbery against ships, first quarter report, 1 January, 31 March 2013.
16. Same as 15 above.

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Coast¹⁷. Reuters reports in an article in the Maritime Executive that according to analysts the figures recorded by the IMB reflect a fraction of the total incidents due to under reporting. The under reporting is accredited to little hope of rescue and an increase in insurance premiums if the incident is reported¹⁸. A recent example of purported non reporting of an incident was brought to light in May 2013. According to Jon Gambrell¹⁹, of the associated press, private security officials reported that on 26 May 2013 a fuel tanker was hijacked 40 nm off Nigeria's Bayelsa state and that a number of crew had been taken hostage. On 28 May 2013 a Nigerian navy spokesman said that no report of the hijacking had been made to officials. Gambrell points out in the press report that some shippers in the region fail to report hijackings publically as they fear that insurance premiums may be increased as a result of the incident. This fear is based on insurance increases which have occurred due to incidents of piracy against ships off certain areas of the African continent and have resulted in increased costs for shipping companies. In 2008 the Marine Insurer Group in London raised premium rates for ships making the voyage through the Gulf of Aden and the Suez canal resulting in an estimated increase in premiums of between \$US 10,000 and \$US 20,000 per trip through the Gulf of Aden²⁰. In August 2011, Benin, in the Gulf of Guinea was added to the list of high-risk countries compiled by the Marine Insurer's Group²¹. As a consequence of

this listing, insurance rates for vessels operating in Benin's waters was increased. To avoid the increased premiums companies rerouted their vessels to ports in neighboring countries resulting in a 70 per cent decline in the number of ships calling at Benin's main port Cotonou. This in turn caused an estimated loss of \$US 81 million in customs revenue for 2011 for Benin, further contributing to poverty and unemployment in the region²².

Problems Encountered In Somalia whilst Combating Piracy and Possible Best practices for the gulf of Guineau Lack of Legislation

On the 23rd April 2011 the UNSC issued Resolution 1976²³, on the situation in Somalia in which it reaffirmed that international law, as reflected in the United Nations Convention on the Law of the Sea (UNCLOS)²⁴, and in particular in articles 100, 101 and 105, sets out the legal framework applicable to combating piracy and armed robbery at sea. At the same time the resolution noted with concern that the domestic law of a number of states lacks provisions criminalising piracy and/or procedural provisions for effective criminal prosecution of suspected pirates. The resolution urges all states, including states in the region to criminalise piracy under their domestic law and emphasises the further importance of also criminalising incitement, facilitation, and conspiracy and attempts to commit such acts.

The resolution recognises that individuals

and entities who incite or intentionally facilitate an act of piracy are themselves engaging in piracy as defined under international law.

The UNODC Regional programme for West Africa, 2010-2014²⁵, points out, that like East Africa, many countries in West Africa do not have an adequate legislative framework to address acts of piracy. On the 29th February 2012 the UNSC issued Resolution 2039²⁶, on the situation in the Gulf of Guinea in which it affirms that UNCLOS provides the legal framework applicable to combating piracy and armed robbery and urges states in the region to establish a legal framework for the prevention, and repression of piracy and armed robbery at sea as well as prosecution of persons engaging in those crimes, and punishment of those convicted of those crimes and encourages regional cooperation in this regard. States are thus urged to criminalise piracy in their domestic law, pursuant of their membership of the UNCLOS convention. The schedule of the African Union Convention on the Prevention and Combating of Terrorism²⁷, also lists UNCLOS amongst the traditional Counter-Terrorism Conventions and Protocols, in respect of which member states of the African Union have the obligation to become party to, as soon as possible and to enact domestic legislation in order to give effect to those conventions. Even if international instruments would define illegal or criminal acts, such acts only become enforceable once enabling legislation, jurisdiction and penalties are enacted in domestic laws. States in the gulf of Guinea need to adopt a uniform/harmonised approach when developing a domestic legal framework to ensure that piracy and armed robbery against ships is criminalised and that adequate guidelines are put in place to deal with the question of

jurisdiction, the conduct of investigations and the prosecution of offenders. Cole²⁸, describes an adequate legal framework as one having to provide for, apart from the criminalisation of acts of piracy, the extension of the jurisdictional reach of the national courts beyond the normal limit of the national criminal jurisdiction in the territorial sea. He also states that to be effective such a framework should also provide for the criminalisation of conspiracy and attempt to commit piracy. In this regard, taking into account the developing transnational nature of piracy in the Gulf of Guinea, it is likely that acts of piracy could be planned in neighbouring states, including land locked states adjacent to the littoral state off whose waters the incident occurs. During an open debate in the UN Security council in October 2011 on piracy in the Gulf of Guinea Nigeria underlined that the fight against piracy is a collective responsibility. During the same debate Benin pointed out that if piracy is not addressed properly, it can jeopardise socio-economic development and foreign investment in the Gulf of Guinea region²⁹. The Brenthurst Foundation Discussion paper³⁰, reaches the conclusion that in the long run, it will be intra-African maritime partnerships that will determine Africa's capacity to address maritime challenges. The Economic Community of West African States (ECCOWAS)³¹, and the Economic Community of Central African States (ECCAS)³², provide existing regional mechanisms, through which increased national, bilateral and trilateral initiatives to combat piracy and armed robbery against ships can be initiated. An example

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of a recent initiative is the meeting of West African heads of state in June 2013 in Benin to discuss the adoption of a code to fight piracy. The outcome of the meeting was that 22 West African states became signatories to an anti-piracy code of conduct for West and Central Africa³³, which incorporates many elements of the successfully applied Djibouti Code of conduct signed by 20 states in East and Southern Africa.

East Africa: Trilateral Initiative to combat piracy

On 9 August 2011 the heads of state of the Southern African Development community (SADC) adopted an SADC Maritime security strategy amidst growing concern about threats such as piracy and other criminal activities in the seas off the African continent³⁴. On the 13th December 2011 three East Africa member countries of SADC, the Republic of Mozambique, the Republic of South Africa and the United Republic of Tanzania signed a Memorandum of Understanding between the three governments on Maritime Security Cooperation. The purpose of the MOU is to regulate the armed forces of the three countries during the conduct of Combined Maritime Operations in the territorial waters of each country to protect the territorial waters against any illegal

activities that undermine security and economic development. The MOU gives the forces of the participating states the right to patrol, search, and arrest, seize and undertake hot pursuit operations on any maritime crime suspect or piracy³⁵. This operation which is supported by a logistics base and an aircraft stationed at Pembe in Mozambique is ongoing. The South African Minister of Defence in 2013 indicated that in the current defence budget R585 million rand (US\$ 5,8 million) has been allocated to the operation³⁶. Since the commencement of the operation there have been no successful pirate attacks in the Mozambique Channel.

West Africa: Bilateral Initiative to combat piracy

On 28 September 2011 the heads of state of Nigeria and Benin commenced an agreement to jointly patrol the waters off Benin. Since the start of the operation the number of successful pirate attacks decreased. In contrast to the operation in East Africa this joint operation was constrained by a lack of logistical support in terms of refueling and repairs facilities not being available close by³⁷. According to a spokesperson from the Nigerian Navy in September 2012, the presence of the naval ships has reduced piracy significantly. The spokesperson also

17. Same as 14 above.

18. The Maritime Executive. Reuters article "Nigerian Pirate gangs extend reach off West Africa" by Marex, May 29, 2013.

19. Jon Gambrell, The Associated Press, May 28, 2013, *Pirates reportedly hijack fuel tanker off Nigeria's oil-rich delta, kidnapping sailors*, <http://www.canada.com/news/Pirates+reportedly+hijack+fuel+tanker+Nigerias+oilrich+delta/8443647/story.html>

20. Congressional Research Service: Piracy off the Horn of Africa. April 19, 2010 page 14 7-5700/R40528 available at www.crs.gov

21. Same as 20 above.

22. S/2012/45 dated 19 January 2012 *Report of the United Nations assessment mission on piracy in the Gulf of Guinea*, p.p.7-24, November 2011.

23. UNSC 1976 S/RES/1976(2011), 11 April 2011.

24. UNCLOS 1982, New York, United Nations.

25. UNODC, Vienna, United Nations, New York, 2010.

26. S/RES/2039 (2012), 29 February 2012.

27. AU Convention on the prevention and combating of terrorism available online at http://www.au.int/en/sites/default/files/OAU_CONVENTION_PREVENTION_COMBATING_TERRORISM.pdf

28. Alan Cole, *Prosecuting piracy: challenges for the police and the courts*, Global Challenge, Regional Responses: Forging a common approach to Maritime Piracy, April 18-19, 2011, Dubai, United Arab Emirates. Selected briefing papers: Published in 2011 by the Dubai School of Government, Dubai, United Arab Emirates. www.dsg.ae

29. Same as 22 above.

30. Brenthurst Foundation discussion paper 2010/03, available online at http://www.thebrenthurstfoundation.org/Files/Brenthurst_Commissioned_Reports/BD1003_Maritime-Development-in-Africa.pdf

31. ECCOWAS Member states are Benin, Burkina Faso, Cape Verde, Ivory Coast, Gambia, Ghana, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.

32. ECCAS Member states are Angola, Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, Rwanda, Sao Tome and Principe. If legislation to combat piracy is lacking or in need of harmonization among littoral member states, the security Committee of ECCAS could provide an additional instrument to assist in this regard.

33. *Regional anti piracy code for West Africa*, Lloyd's List, Posted on Tuesday July 2nd, 2013, by Debbie. Available online at <http://www.intermanager.org/2013/07/west-african-states-sign-anti-piracy-code/>

34. Cambell, K., 2012, *SA Navy Budget set to rise as piracy threat to SADC grows*. Creamer Media's engineering news [online], 11 April, Available at <http://www.engineeringnews.co.za/article/sa-navy-budget-set-to-rise-as-piracy-threat-to-sadc-grows-2012-04-11> (accessed 2012/05/12)

35. Mashamaite, K.P., 2012, *Minister Sisulu signs Memorandum of Understanding (MOU) on Maritime Security Cooperation with Tanzania and Mozambique*, 16 February 2012, [online] available at <http://www.dod.mil-za/news/news2012/february/mar-sec-coop-tan-moz.htm>. (Accessed 2012/04/12).

36. Kim Helfrich, *Galeshewe takes over from Amatola in the Mozambique Channel*, 30 May 2013, Defence Web. www.defenceweb.co.za

37. S2012/45 report of the UNSC mission (same as 22 above).



stated that due to the success of the operation it was being contemplated to widen its scope by including the navies of Togo and Ghana, if possible³⁸.

Best Practices: Joint patrols by navies

On 23 November 2005, in response to attacks by pirates on ships transporting food aid to Somalia, the International Maritime Organisation (IMO) adopted a resolution on piracy and armed robbery against ships³⁹, in which it appealed to all parties which might be able to assist to take action, within the provisions of international law, to ensure that all acts or attempted acts of piracy and armed robbery against ships were terminated forthwith. The resolution also requested the Secretary-General of the IMO to continue monitoring the situation in relation to threats to ships sailing off the coast of Somalia. On March 15, 2006,

the President of the Security Council of the United Nations issued a presidential statement on the situation in Somalia, in which the Security Council encouraged member states whose naval vessels and military aircraft operate in international waters and airspace adjacent to the coast of Somalia to take appropriate action to protect merchant shipping against attacks. This call was a clear indication that Somalia was unable to protect ships on innocent passage through its territorial waters. This inability resulted in the UNSC later issuing resolutions⁴⁰, permitting warships to enter the sovereign territory of Somalia in pursuit of pirates. In the Gulf of Guinea, at present all the countries have functioning governments and criminal justice systems. According to Dr Augustus Vogel⁴¹, however, there are fewer than 25 maritime craft longer than 25 meters available off of west and central Africa for interdiction operations.

The report of the United Nations assessment mission on piracy in the Gulf of Guinea⁴², points out that no country in the region has the capacity to deal with maritime insecurity alone as many pirate attacks occur beyond territorial waters and in the exclusive economic zones. The report recommends that international partners provide funding and support to ensure adequate patrols off the coast of Benin. As an immediate step the report recommends that international partners contribute funds for the purchase by Benin of naval vessels and aircraft, or donate supporting infrastructure and equipment as well as assisting with capacity – building to enhance Benin's maritime security capabilities. Will the vertiginous increase in pirate attacks and the immediate lack of adequate naval resources necessitate assistance from foreign navies, similar to the assistance provided off the Horn of Africa, to deal

38. Will Ross, BBC News, Lagos, *Surviving the pirates off the coast of Nigeria*, available online at <http://www.bbc.co.uk/news/world-africa-19555334>

39. IMO Resolution A.979(24).

40. UNSC resolutions 1816, 1838, 1846 and 1851.

41. Dr Augustus Vogel, *Investigating in Science and Technology to meet Africa's Maritime Security Challenges*, Africa Security Brief: A publication of the Africa Centre for Strategic Studies No 10, February 2011, <http://www.ndu.edu/press/lib/pdf/africa-security-brief/asb-10.pdf>

42. S2012/45 report of the UNSC mission (same as 22 above).

with the scourge of piracy and keep the sea lanes in the Gulf of Guinea open? In contemplating this question one would first need to assess the effectiveness of capacity building assistance in the region and concomitant ability of states to singly or jointly patrol their territorial waters before possibly considering limited international patrols of the high seas off west Africa.

Best practices: Liaison between Navies and Interpol

One of the problems identified in East Africa was that the naval forces that arrested the suspected pirates between 2008 and 2010 did not necessarily have access to a criminal database on personal information, fingerprints and DNA of suspects. Such information, which is essential for comparison with data on apprehended pirates to assist in the investigation and prosecution, are normally stored on police databases. This shortcoming was overcome by INTERPOL, the International police organization, proposing different models by which information regarding law enforcement activities could be shared between navies and national police forces⁴³. By 2011 prosecutors and judges of regional states were routinely reporting to the UNODC that cases prepared by foreign navies were among the best that they had seen in their courts⁴⁴. The important role played by Interpol when dealing with piracy in the Horn of Africa region has been recognized and documented by the United Nations in UNSC Resolutions resolution's 1950 (2010) and 1976 (2011). UNSC Resolution 1950 urges states to cooperate with Interpol and Europol in the investigation of international criminal networks involved in piracy off the coast of Somalia as well as those responsible for financing and facilitating piracy. The Secretary General of Interpol, Mr. Ronald Noble, commented on the resolution by saying that it recognized that international

43. Y.G. Gottlieb, *Combating Maritime piracy: Inter-Disciplinary Cooperation and information sharing*, Paper based on presentation at 1st combined Maritime Security Conference, Kiel, 2-5 May, 2011.

44. A. Cole, *Prosecuting piracy: challenges for the police and the courts*, Global Challenge, Regional Responses: Forging a common approach to Maritime Piracy, April 18-19, 2011 Dubai, United Arab Emirates. Selected briefing papers, Published in 2011 by the Dubai School of Government, Dubai, United Arab Emirates, www.dsg.ae

45. Interpol media release 24 November 2010, *Unanimous support by UN Security Council for INTERPOL and Europol role in combating maritime piracy networks*, www.interpol.int

46. Interpol media release 12 April 2011, *UN Security Council resolution underscores role of INTERPOL in securing maritime piracy convictions*.

47. Same as 22

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law enforcement provided the critical link between arrests made by military intervention and the investigation and prosecution of maritime pirates and associated criminal networks⁴⁵.

UNSC resolution 1976 highlights the importance of collecting, preserving and transmitting evidence of acts of piracy and armed robbery with guidance from INTERPOL. In commenting on the resolution, Mr. Ronald Noble described the resolution as a clear sign that member countries need to make sure that the basics are in place and that they work with INTERPOL to bring criminals to justice⁴⁶. In dealing with piracy in West Africa the advantage of liaison with Interpol is highlighted in the report of the United Nations assessment mission on piracy in the Gulf of Guinea⁴⁷. The report recommends that to combat piracy the government of Benin make use of the system, tools and services of INTERPOL. Further that the government of Benin utilise existing networks and coordinate with international bodies to support law enforcement with respect to crimes committed at sea. The report states that the European Union is funding the development by INTERPOL of a police information system for Benin and Ghana under which a single database on organized crime will be created and made available to all fifteen West African States. Best practices can best be served by navies maintaining and strengthening their relationship with INTERPOL as maritime crime such as piracy, drug smuggling, human trafficking and illicit arms smuggling will remain on their radars and is unlikely to disappear any time in the foreseeable future.

Conclusion

Piracy can best be dealt with operationally by neutralising the perpetrators through arrest, investigation and prosecution. Due to the transnational nature of this crime, however, no single state can effectively deal with the problem on its own. States need to assess their ability to police their own territorial waters, bearing in mind that this process includes all those lawful actions (processes) undertaken by the state to create national laws (legislative), to administer such laws and relevant international laws and conventions (for example the activities of government departments and agencies concerned with transport relations and the administration of the marine environment within that states offshore jurisdiction), and the application of such laws (by agencies and government departments such as the police, navy, coast guard and marine and coastal management agency charged with law enforcement within the states offshore jurisdiction). After assessment and taking into account the outcome, states can then consider the nature of their ability to contribute to joint efforts to deal with the problem in regional context through agreements and or Mou's between states. In the process the role and contribution which must and should be made by landlocked states adjacent to littoral states should not be overlooked. Politicians and communities need to be made aware, through existing structures, of the importance of maintaining good order at sea to create and maintain the political will to deal robustly with crime in the maritime domain.



Fighting Pirates from Space

Using Space Resources in the Fight Against Piracy

by Nina-Louisa Remuss,
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The content of this article is based on: Nina-Louisa Remuss, Fighting Pirates from Space, Using Space Resources in the Fight Against Piracy, published in The Journal of the JAPCC edition 13 (April 2011). www.japcc.org

In recent decades the threats to security both internally and externally have changed drastically and now include indirect threats such as terrorism, organized crime and piracy, as well as resource and energy scarcity, climate change and natural catastrophe. To find solutions and mitigate these threats, science, research and technology thus increasingly complement politics, polity and economics. For technologies to continue to provide answers to current and future threat scenarios, the continuous pursuit of security research, and space applications in particular, is of utmost importance.

The Emergence of Piracy and Why it Matters

Somali Piracy matters to the international community for four primary reasons: the effect on Somalia, the impact on international trade, the danger to the environment, and lastly, the potential connection with the terrorist threat. The RAND Corporation, a U.S. think tank, has identified seven Causative Factors

(CF) accounting for the current emergence of piracy². Accordingly, removal or interruption of any one of these CFs would disrupt or reduce piracy. These CFs are:

- Massive Increase in Commercial maritime Traffic (CF 1)
- Narrow and Congested Maritime Chokepoints (CF 2)
- Lingering Effects of the Asian Financial Crisis/Profit as a Motivation (CF 3)
- Difficulties with Maritime Surveillance as a result of the events of 9/11 and the concomitant pressure that has been exerted on many governments to invest in expensive, land-based homeland security initiatives (CF 4)
- Lax Coastal and Port-Side Security (CF 5)
- Corruption/Safe Heavens (CF 6)
- Global Proliferation of Small Arms and Light Weapons (SALW) (CF 7)

The Role of Space Applications in Counter-Piracy Operations and Policy

Clearly, space applications cannot counter the massive increase in maritime traffic (CF 1), decentralise narrow and congested maritime choke points (CF 2),

provide the Somali population with money to overcome the lingering effects of the Asian financial crisis (CF 3), or counter corruption (CF 6). Space applications can, however, improve maritime surveillance (CF 4) as well as coastal and port-side security (CF 5) and provide supportive tools to combat illegal trafficking of, for example, SALW (CF 7). In short, space applications can have an impact on the effectiveness of counter-piracy operations and policy.

Space applications offer the possibility of monitoring specific large geographic areas, in a non-intrusive manner that is legally valid over otherwise denied territories. Given their multipurpose characteristics, satellites can deal with the thematic diversity of maritime security threats in a optimal manner. Covering larger zones in on shot satellites allow for an optimal use of available resources and offer a shared resource by fostering intra- and inter- national cooperation. On the downside, the satellites currently used for maritime surveillance were not originally designed for this purpose.³

Technical capabilities depend on the area of application and are elaborated upon in greater detail in the subsequent sections. One of the main examples of the contributions of space applications to the fight against piracy is the European Union Satellite Centre's (EUSC) support

Target Point

Satellite observation works especially well with the large geography and thematic diversity of maritime activities requiring monitoring and surveillance. Satellites are multi-purpose, non-intrusive, and not limited by national boundaries. Although some limitations exist and improvement must be made, space application in the fight against piracy are resulting in a tremendous positive impact.

of ATLANTA NAVFOR. Relying on space applications EUSC continuously monitors pirate operating bases and skiff activity, Somalia's borders (for Ethiopian military activity) and possible terrorist training camps. It identifies potential pirate camps on the Somali coastline and offshore islands and provides battle damage assessments of Somali towns. Findings are issued in the form of imagery intelligence reports or digital geographic information products (DGI).

Causative Factor 4: Difficulties with Maritime Surveillance

Space applications fulfill a threefold role in improving maritime surveillance through three types of applications. Earth and signal monitoring, Satellite Communications, and Satellite Navigation. Space applications mainly contribute to 'observe' and 'detect' functions and are complementary to other surveillance systems, such as coastal RADAR, Automated identification System (AIS), patrol vessels and aircraft or helicopters, by extending their surveillance range. Space applications are already present



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on many vessels for communication, thus presenting the possibility of low-cost data collection or positioning. Usually it is the combination of cooperative and non-cooperative signals which allows for the detection of a potentially dangerous vessel.

Space applications have proven valuable in finding pirate bases, but pure satellite imagery is of limited use and needs to be place into context with all other possible sources of information (GEOINT). In addition, change extraction techniques (change detection, categorization and classification) are used to identify pirate bases on to analyse changes in their structures.

Space-based imagery is also used for tracking pirate skiffs and locating hijacked vessels. This is done by relying on satellite imagery. Easy detection with the human eye in optical imagery of 2,5 meter resolution or better is possible for larger ships such as a container ships, oil tankers and bulk carriers. Optical imagery also allows for ship size estimation. Difficulties in vessel-type-identification in optical imagery, however, persist for small (<10m) vessels, which are still detected but their classification is impossible. Joint Research Centre (JRC) benchmarking tests of radar imagery capabilities, which analysed almost 900 known fishing ship positions in 100 images, further indicate an 80% detect-ability rate for larger fishing vessels (45m average)⁴ and >90% for smaller ones (35m average)^{5,6}.

Radar imagery also allows for a length estimate. Few satellites currently provide speed and target estimation. No vessel type identification is possible so far.



Through space-based collection such as AIS signals, non-cooperative (pirate) vessels or the position of hijacked ships can also be identified.

Causative Factor 5: Lax Coastal and Port-Side Security

There is a growing interest in the use of Synthetic Aperture RADAR (SAR) imagery for maritime border control. Optical imagery and change detection techniques indicate illegal activities, and space-based collection of signals can help indentify vessels involved in illegal, unreported and unregulated (IUU) fishery. Satellite imagery further allows for mapping of ports for emergency planning.

Causative Factor 7: Global Proliferation of Small Arms and Light Weapons (SALW)

Space applications can also be used to monitor illegal transportation, such as container security (tracking of containers through Satellite Navigation) and sea border/sea transport monitoring. There is currently still the need for intelligence sources to identify something as suspicious before a certain container is tracked.

Large vessels used for smuggling often anchor off the coast to transfer the load to smaller vessels. The challenge is to detect small boats that may be on the water for a very short time in a crowded area, and to recognise their hostile intent

Conclusions and Recommendations

Satellite observation fits particularly well the geographic and thematic diversity of maritime activities requiring monitoring and surveillance. The global characteristic, of monitoring from space make space systems particularly attractive for long-term monitoring of a very large geographic area. Satellite observation systems are multipurpose and non-intrusive. Satellite data is not limited to borders (legally valid over foreign territories) and is continuously available, allowing for continuous and frequent observation of large areas in

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order to aid early detection of potential threats.

Further, space assets are complementary to ground, sea and air assets. They indicate 'where to look'. Users can then activate other systems to identify and confirm the threat. Space applications complement existing coastal surveillance systems such as coastal RADAR, AIS, patrol vessels and aircraft. In doing so, they extend the surveillance range (to better anticipate threats), cover larger zones in one shot (optimisation of resources and money) and offer a shared resource by fostering intra and international cooperation.

Satellites that can support counter piracy missions are already in place. There is no need to wait for new technology to develop; the challenge is to better use what already exists. The current data situation in Europe often results in the absence of necessary information due to a lack of coordination across borders and between levels of government and a lack of common standards for their use. These is compartmentalisation and a lack of interoperability of different information systems for monitoring the position of ships at sea. The result is incompatible information and information systems, fragmentation of information and redundancy. A comprehensive approach to the sharing of maritime surveillance data is required.

As has been explained, the satellites which are currently used for maritime

surveillance have not been designed for this purpose. Thus, a dedicated maritime surveillance mission is need (see endnote).⁸ Additionally, wake detection must be improved. The continuity of information at all times needs to be ensured and real time availability and creativeness in case of unplanned events and emergencies increased. The availability of space systems and their capacity to be replaces of augmented for operations purposes remains weak and barely reactive. Space systems have to become more responsive⁹ and should be treated as critical infrastructures as information dependence increases¹⁰. At the same time, light, flexible and cost effective applications for all actors concerned (developing countries, private sector, and industry) are needed.¹¹ Europe should continue to work on a European AIS-S. A more integrated approach, fusing satellite data and all other available data, is recommended to ensure that surveillance may be conducted anywhere at any time to detect suspicious activity. The European Commission's Draft Roadmap towards establishing the Common Information Sharing Environment for the surveillance of the EU maritime domain¹², present in October 2010, is a first step to achieve these aims.

As with any ISR system, there are limitations and a need for improvements in the key areas listed above. This should not detract, however, from the important and successful work that space systems

are adding to counter-piracy operations off the coast of Somalia, nor should it inhibit the application of space systems in the maritime domain. For a complete copy of the study on the use of space recourses in the fight against piracy, including additional recommendations on technical capabilities, regional capacity building, an coordinative issues, please contact the author directly at: nina-louisa.remuss@espi.or.at

1. This article strongly drays on the findings of Remuss, Nina-Louisa 'Space Applications as a Supporting Tool for Counter Piracy – Outline for a European Approach', ESPI REPORT 29. Vienna: ESPI, 2010. For a copy of the full report download it directly from the institute's website: www.espi.or.at.
2. Chalk, Peter. 'The Maritime Dimension of International Security – Terrorism, Piracy and Challenges for the United States', Pittsburgh: RAND Corporation, 2008. Xi
3. Koppe, Rüdiger. 'Industrial Approaches to Piracy – Securing Maritime Transportation from Piracy'. Presentation. Space and Maritime Security – Strategies and Capabilities to Counter Piracy. Wirtschaftskammer Österreich, Vienna, Austria. 30 November 2009.
4. In RADARSAT ScanSAR Narrow B images (50m resolution)
5. In RADARSAT ScanSAR Standard images (25m resolution)
6. It is due to the highest resolution of 25m in the Standard images, compared to the 50m in the ScanSAR images that resulted in a better performance. In detail this means, for the ScanSAR measurements, target size/image resolution = 45m/50m =0,9 while for the Standard measurements target size/image resolution = 35m/25m =1,4, which led to the small improvement from 80% to 90%. For more information directly cf. Harm Greidanus, and Naouma Kourti. 'Findings of the Declimes Project – Detection and Classification of Maritime Traffic from Space'. Proceedings of SEASAR 2006, 23-26 January 2006, Frascati, Italy, ESA 14 Feb. 2011.
7. Joined Research Centre. 'Surveillance ConTraffic: Monitoring Container Traffic' Joint Research Centre, 2008. Available from http://ipsc.jrc.ec.europa.eu/showdoc.php?doc=promotional_material/JRC42970_contraffice_leaflet.pdf&mime=application/pdf
8. Recommend the dedicated maritime surveillance mission be composed of: radar and optical satellites: (1) high resolution radar satellite (country with ERS and ENVISAT class radars); (2) an optical imaging satellite at two special resolutions: (a) high resolution for local and regional operational monitoring applications continuity of SPOT and Landsat class) and (b) medium resolution for global applications (continuity of ENVISAT).
9. For more information on how to make European space assets more reactive refer to Remuss, Nina-Louisa. 'Responsive Space to Europe – Elements for a Roadmap for Europe based on a comparative analysis with the U.S. Operational Responsive Space Concept'. 'ESPI Report 22. Vienna: European Space Policy Institute, 2010. <http://www.espi.or.at/index.php?option=com_content&task=view&id=469&Itemid=1>
10. cf Remuss, Nina-Louisa. 'The Need to Counter Space Terrorism – A European Perspective'. ESPI Perspectives 17. Vienna: ESPI
11. Idid.



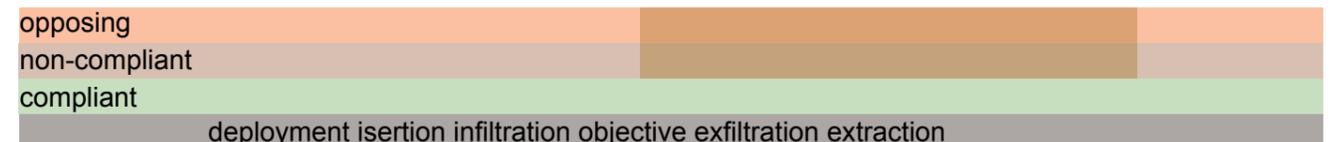
Are your Boarding Teams being trained to fight Piracy in the best way possible?

by Chris Haarmeijer
Re-lion BV

Navy fleets and Coast Guards with authority regularly act, jointly or independently, under NATO and/or a Ministry of Homeland Security to interdict, apprehend, and refer suspected criminals for prosecution. To perform in such activities the dedicated teams are expected to strictly follow and train teamwork for ship's visit, board, search and seizure (VBSS) and to conduct maritime law enforcement operations.

re-lion's objective is to provide the best training system which enhances both the individual and team expertise – skill and know-how – in any joint Navy and Coast Guard's partnership, so they can work more hand-in-hand thus outperforming intruders. Thereto re-lion builds 'game changing' virtual systems in a way that team members can (jointly) train both their

individual and team capabilities on any introduced virtual 'operational platform'. This article explains the benefits of using virtual simulations to train visit, board, search and seize. It specifically focuses on the infiltration, objective and exfiltration phases in non-compliant and opposing boarding.



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Challenges in training of boarding teams

In boarding operations;

- Tactical decision-making is complex;
- highly situational;
- performed under demanding circumstances.

During training:

- The process of achieving, acquiring and maintaining situational awareness are often the ones most neglected;
- Field training exercises (FTX'es) cannot always provide all the stimuli that are required for an optimal training of operators.

The challenges found during training, both from a 'Quality' and from an 'Efficiency' point of view, have been compiled based on interviews with subject matter experts. The validity of these will vary with your situation.



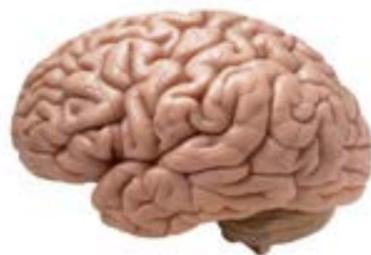
1. Physical



3. Tactical



2. Technical



4. Mental

recording from multiple points of view.

Efficiency

- ♦ Planning of training with live, often scarce, assets is logistically demanding;
- ♦ Physical environments require travel time to and within the training areas;
- ♦ It is costly to hire actors as role players;
- ♦ Security clearance for specific tactics, techniques & procedures (TTP) make it almost impossible to hire actors;
- ♦ Live training assets have a high total cost of ownership (TCO);
- ♦ Cost associated with wear & tear of weapon systems and consumables play a role.
- ♦ FTX's are generally not very efficient as there is a great deal of waiting involved.

Quality

- ♦ Static physical environments limit the number of situations to train;
- ♦ The training environment does not exactly match the operational environment.
- ♦ Mission rehearsal is not possible;
- ♦ Using teammates as role players result in a negative effect on trainee mindset;
- ♦ Live role players do not always give the required training effect, as they are difficult to control;
- ♦ It is not possible to work with certain role players e.g. children, elderly, animals, etc.;
- ♦ The training of challenging scenarios is prohibited by safety regulations;
- ♦ Protective gear limits the training effect due to safety regulations,
- ♦ Discussing and reflecting on team behavior – by the trainees – is not performed based on an objective

Because operators and top athletes have a great deal in common, the concept below has been adopted from the athlete development strategy (LTADS). The model is based on 4 interlinked elements:

- ♦ Physical skills, the basis;
- ♦ Technical skills are added;
- ♦ Tactical skills are trained;
- ♦ Mental skills are a pre-requisite.

Optimal performance can only be reached provided all of these skills are being fully developed.

Is game technology for nerds only?

Just for the sake of being complete, 3 definitions that will be used further in the text:

- ♦ Live training: real people operating real systems.
- ♦ Virtual simulation: real people operating simulated real systems in a realistic artificial world.
- ♦ Serious gaming: real people operating simulated systems sitting behind a desk.

Due to the challenges mentioned earlier, live training has good effect on the physical and technical skills however less on the tactical skills. According to [HU2012], situational assessment, the process of acquiring and maintaining situational

LIVE TRAINING



1. Physical



2. Technical

VIRTUAL TRAINING



2. Tactical



2. Mental

awareness, is most neglected during regular FTX's. Dismounted training is still dominated by live training.

Virtual training, if available to operators, is mostly used for static small arms training. This in contrast with for instance fast jet or helicopter pilot training. Pilots can simply not go without virtual training, because of the complexity of the tasks to be performed.

Depending on the design, virtual training has good effect of the tactical and mental skills and less on the physical and technical skills. This was demonstrated in an experiment for the Netherland Armed Forces [KO2011]. In this experiment, trainees at the beginning of their education were split into a *live* and a *virtual* group.

During the experiment, both groups were instructed to clear a series of rooms varying from simple, square rooms with one hostile of friendly target to complex, U and L-Shaped rooms containing multiple targets, again varying from hostile to friendly. The *live* group used physical buildings for training and physical targets while the *virtual* group only used buildings and virtual targets for training. To measure the result of these types of training, both groups were confronted with the same final test using physical buildings and physical targets.

And the winner is.....

In a simple situation, the *live* group scored slightly better due to a better result on the physical and the technical skills. In

a complex situation, the *virtual* group scored significantly better: they are 30% faster in completing the test, using less ammunition. Also, trainees from the *live* trained group more often shot friendly targets than those trained *virtually*.

Balance in training methods

Virtual simulation should *never* completely replace live training. You can however decrease cost and win in results by *scaling back* a bit in *live* and replacing that training time with *virtual* simulation. The experiment shows that a good balance between live and virtual is the preferred way. Like yin and yang.

Most of the issues in training of boarding teams can be categorized into the following 4 elements:

1. Physical environment
2. Role players
3. Logistics
4. Cost.

Virtual simulation and serious gaming can remove many of the challenges posed in the beginning of this article.

The figure below shows an example on how to incorporate the different tools in the toolbox of the trainer and where they fit. A prime example of the use of serious gaming is "Boarder's Ahoy" developed for NATO.

Back to the initial matrix: serious gaming is very good at the compliant side of VBSS where it is sometimes used as simulation and sometimes purely as visualization.

As was promised, the focus in this article is on the non-compliant and opposing side of boarding and specifically during the infiltration, objective and exfiltration phases. This is where virtual simulation has the edge.



1 Serious gaming
e.g. training team leaders

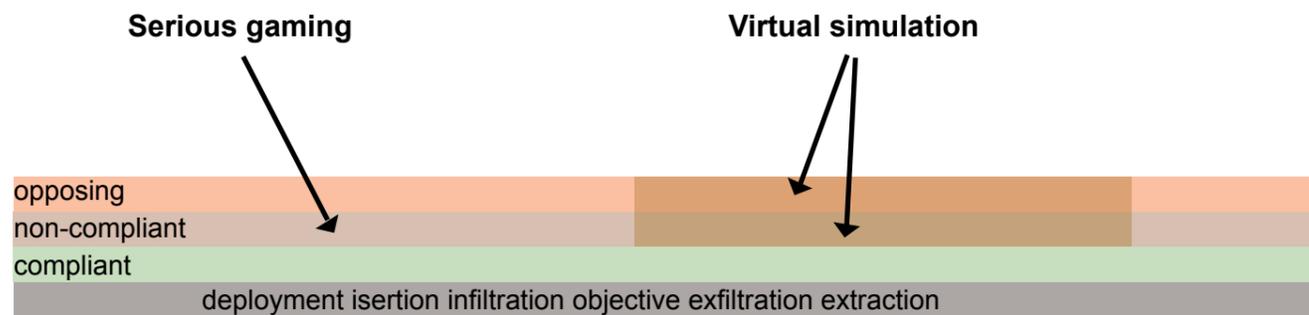


2 Virtual Simulation
e.g. training the complete team



3 Live training
e.g. field training experience (FTX)

TECHNOLOGICAL ISSUES



Virtual simulation in boarding training?

Virtual simulation –or Virtual Reality– as it is sometimes referred to, takes serious gaming a leap further. Quoting Bruce Sterling [BS1993] who wrote the following in an article in Wired Magazine:

“Virtual Reality allows a more naturalized interface with the computer that goes far beyond the point and click graphical user interface that ate so popular now. With Virtual Reality, the user is surrounded by his environment and an interface can be established not through the conventional keyboard and mouse but via tracking systems that keep record to the whole human body posture”.

Virtual simulation can also be described using the formula:

$$\text{Virtual simulation} = \text{reality} - X + Y$$

Where *X* is the part of training that you do in live training and cannot do in virtual simulation and *Y* is the part of training that you cannot do in live training but can do using virtual simulation.

An example of both:

- ♦ *X*: breaking the glass window using the stock of your weapon.
- ♦ *Y*: having a fully armed opposing, computer generated character, fall from a hidden place in the ceiling right in front of your nose.

The picture below was taken from an exercise in CQB and shows a novel approach to dismounted simulation where the operators are wearing sensor vests that records their exact posture and position in real-time. This posture and position is directly linked to a computer avatar thereby allowing the operator full control over it in a natural way. Also, they are wearing a headset that includes a display in front of their eyes, speakers and microphone. When the operator looks

through the display, he effectively sees what the computer avatar is seeing in the virtual environment. Of course, he is not alone but part of this team.

The idea behind this setup is that it allows maximum flexibility in the type of training environment while maintaining a *train as you fight* methodology. No joystick or mouse. Just you, your team and weapons of choice.

Also, the concept is mobile, easy to setup and fits in a couple of flight cases. This has two advantages:

1. Mobility;
 - as mentioned earlier, generally during FTX's a lot of waiting time is included;
 - extra practice, this system can be taken by a unit on an FTX;
 - instructors can take it to the units for training;
2. Substantially less dependency on fixed infrastructure.

Powering this concept is solid technology from the gaming, rehabilitation and

consumer industry, properly adapted and ruggedized to work in a physically demanding environment.

Nineteen (19) benefits of virtual simulation in boarding operations

Looking back at the original issues in training of boarding specifically in the infiltration, objective and exfiltration phases, virtual simulation offers the following advantages with respect to live training:

Quality

- ♦ Enables training in all kinds of environments resulting in sheer unlimited situations;
- ♦ Exact virtual replica of the mission environment can be made and used to train in;
- ♦ Teammates as virtual role players look culturally correct;
- ♦ The effect of a computer generated role players can be exactly controlled;
- ♦ It is possible to insert computer

generated role players resembling children, victims, elderly people, animals, etc;

- ♦ Enables training that would be too dangerous to conduct in a live environment;
- ♦ Discussing and reflecting on team behavior by the trainees is supported by a full after action review (AAR) recording from all points of view.

Efficiency

- ♦ Enables geographically distributed training i.e. force-on-force, red team/blue team, one instructor teaching in multiple locations;
- ♦ Provides an on-demand training solution;
- ♦ Reduces exercise planning and preparation;
- ♦ Eliminates travel time to and within physical training areas;
- ♦ Enables greater training frequency while mitigating safety risks;
- ♦ Computer generated characters as role players are free of charge and do not require security clearance;
- ♦ Reduces ammunition and fuel

expenditures in preparation for live training;

- ♦ Reduces training area and range maintenance;
- ♦ Frees up capacity in live training assets;
- ♦ Avoids wear and tear on equipment;
- ♦ Eliminates impact on constraints related to the environment;
- ♦ Enables extra training during dead hours in FTX's.

Conclusions

As shown, a better balance in training methods aids in efficiency and quality. Do not be afraid that these type of systems are only introduced due to budget cuts: if designed properly, it will lower the total cost of ownership while maintaining or even – increasing – quality of operators! In the integrated manor proposed, the specialist can train and improve some of their methodologies. (Joint) training

in self-developed VBSS exercises will clearly improve the skill set of these professionals. Because these selected men get to do their job every day and bring a lot of law enforcement experience to the table, re-lion is eager to cooperate with these specialists to 'tailor make' their system, for them to grow and advance their skills.

If you think that operating and financing these systems will be a hurdle in your organization, do remember that there are solutions for this in place: from government owned, government operated (GoCo) via government owned, contractor operated (GoGo) to contractor owned, contractor operated (CoCo). Re-lion's virtual training system will be deployed promoting maritime interdiction operations, theater security cooperation efforts and support missions for operations globally in the foreseeable future.

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- [BS1993] B. Sterling, *War is Virtual Hell*, <http://tinyurl.com/3batabf>, checked on April 9th, 2013.



TECHNOLOGICAL ISSUES

EC PERSEUS demonstration project – FP7

by Philippe Chrobocinski
Engineer in Cassidian LEADS Company

General

PERSEUS project contribute to Europe's efforts to combat illegal migration and goods smuggling by proposing a large scale demonstration of a EU Maritime surveillance System of Systems, integrating the existing national systems and platforms, enhancing them with innovative capabilities and moving beyond EUROSUR's 2013 expectations. PERSEUS addresses the following key challenges:

- supporting the network created by National Coordination Centres (NCCs), Frontex and EMSA through increased capabilities including transnational exchange of useful and available information, and associated procedures and mechanisms thereby creating the common information sharing environment
- generation of a common situational picture
- improved detection and identification of non collaborative/suspicious small boats and low flying aircraft
- enhanced and increasingly automated detection of suspicious vessels and behaviours, identification of threats and tracking of reporting and non-reporting vessels

The project articulates this demonstration through five exercises grouped in two campaigns in the Mediterranean sea, implementing missions of drug trafficking and illegal migration control and delivering surveillance continuity from coastal areas to high seas.

PERSEUS also aims at delivering a

comprehensive set of validated and demonstrated recommendations and proposed standards.

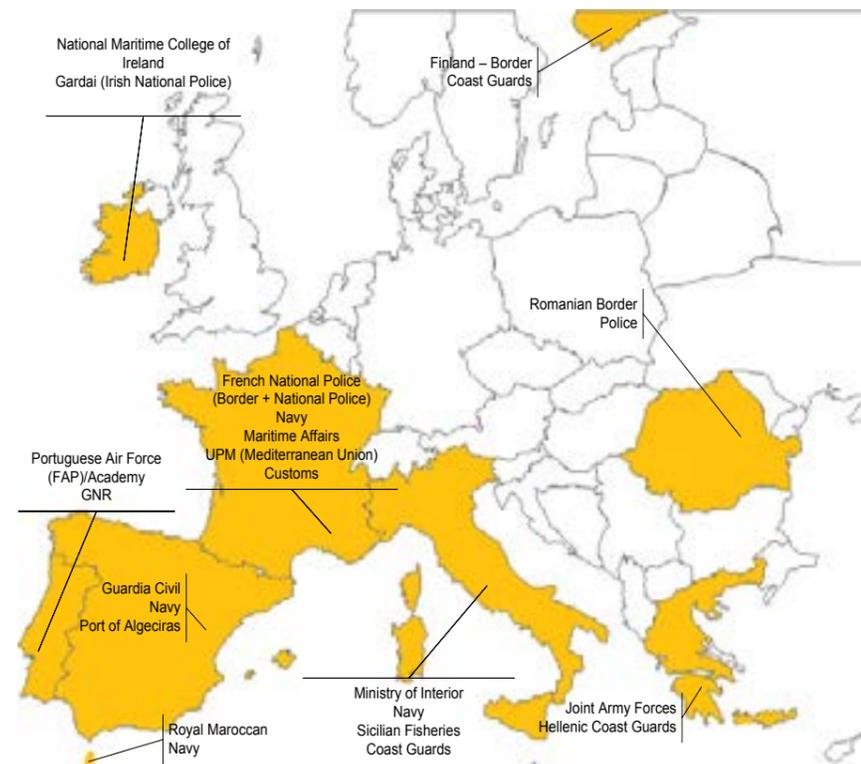
PERSEUS has assembled major users and providers, ensuring privileged access to existing surveillance systems and assets for an optimised coverage of the area of interest. These users will define, assess and validate the alignment of the project's recommendations to their needs. PERSEUS also includes an evolution mechanism to enlarge the user base and integrate emerging technologies during its lifetime.

The project will augment the effectiveness of operational capabilities of the existing

systems – a real-life, credible, relevant and coordinated contribution to the establishment of an integrated European-wide maritime border control system.

The consortium encompasses twenty nine partners covering all the stakeholders in the domain, Large Industry, SMEs, Research labs, universities under the scrutiny of the most relevant end-users that should operate the system (Coast Guards, Navies, Customs, Border Police, etc.).

The users presently involved in the project (as partners or as members of user panel) are presented in the following picture:



The project is built around four main steps as presented on the picture below:

Step 0 - Define & Deploy

2011 Design phase to elaborate the **PERSEUS target vision**.

Step 1 – 2013

Validate

Western Campaign Demonstration

Step 3 – 2014

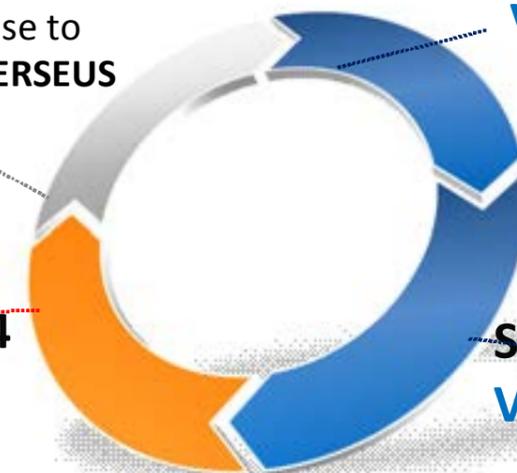
Contribute

Set-up and propose a European "standard" for Maritime Surveillance Systems for 2015/2020

Step 2 – 2014

Validate

Eastern Campaign Demonstration



During the first year (2011), in close coordination with the operational partners, the project set up a referential system encompassing:

- A synthesis and an analysis of user requirements,
- System of systems specifications,
- System architecture both with European dimension and National components.

The second year (2012) was used to define the Western campaign and the supporting scenarios plus the necessary metrics and transversal studies on the legal and procedural constraints. The development of the innovative components was then started.

The third year (2013) allowed to finish the developments and to integrate the system for the Western Campaign (again at European level and at country levels, namely Portugal, Spain, France and Italy) and perform the user training.

The exercises for the Western Campaign started in September 2013 and were completed end of November. They covered the typical scenarios of PERSEUS: Illegal immigration towards Canary Islands, Smuggling in Alboran Sea and illegal trafficking in the Western Mediterranean basin.

Leveraging the outcomes and components of the Western campaign, 2014 will be dedicated to organise and perform the

Eastern campaign in Greece, largely supported by Hellenic Ministry of Defence and Hellenic Coast Guards. The Eastern Campaign will handle several challenges:

- Deploy a full PERSEUS system capability,
- Demonstrate enhanced capability in Aegean Sea (with very short early warning due to the proximity of Turkish coast),
- Demonstrate enhanced capability for large area monitoring (South of Crete), largely supported by airborne platforms,
- Demonstrate the interoperability with Italian systems in the Adriatic Sea.

The project will terminate (Step 3) in the second part of 2014 by elaborating recommendations for the future development of PERSEUS capabilities, proposing technical roadmaps and fostering standards and norms to facilitate the development of the expected operational capabilities.

An illustration: PERSEUS Exercise 4 in the Western campaign

The last demonstration of the Western Campaign of PERSEUS EC project took place on November 28th, distributed between Lisbon (PT), Madrid (SP), La Ciotat (FR) and Rome (IT).



LA CIOTAT PERSEUS configuration (from left to right: UAV ground stations, RCC configuration and SPATIONAV workstations, central and local)

TECHNOLOGICAL ISSUES

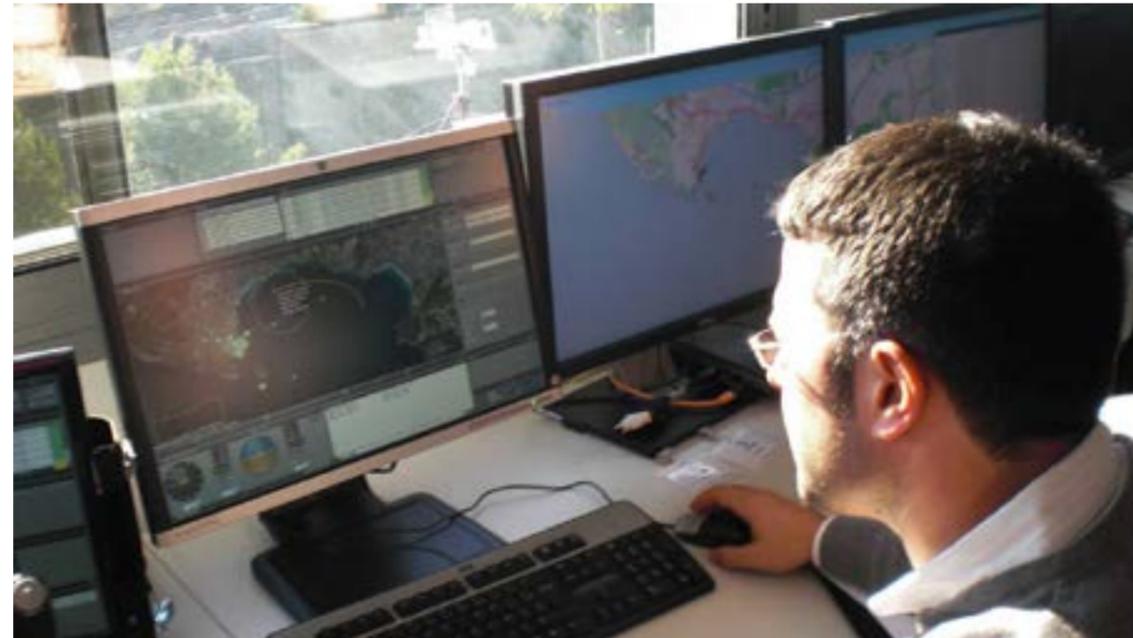
The demonstration integrated the legacy systems from Portugal (Air Force UAV, Navy C2 and Coast Guards C2), Spain (SIVE), France (SPATIONAV) and Italy (SMART) and implemented the PERSEUS

innovations developed during the project. For the first time, all the PERSEUS dimensions were demonstrated with:

- International strategic exchanges between National Coordination

Centres, in accordance with EUROSUR rules and PERSEUS data model;

- Continuity of vessel tracking from Atlantic Ocean to Italy through the multi-National and multi-agencies exchanges of tactical information and tracks between the 4 countries based on PERSEUS recommended standards;
- National demonstrations showing the implementation of PERSEUS



UAV mission planning and monitoring

architecture and innovations at each level of the chain of surveillance and of the chain of command and control;

- Full integration of a UAV complete

segment (TANAN), representing the common surveillance tools of EUROSUR.

The demonstration took into account

fixed sensors connected to Coastal Surveillance stations (French equivalent: Sémaphores) equipped with SPATIONAV V2, a French regional coordination centre



Detection of a small boat with the UAV HD gimbal

RCC - (French COM) and French, Italian, Spanish and Portuguese NCCs. The UAV was connected and tasked by the RCC. The demo didn't use of course the operational systems but the system and components used were the same and all the data were real.

TECHNOLOGICAL ISSUES



Operational assessment

The Exercise was organized and coordinated by Cassidian as Technical Manager and main Integrator of the project. The organization and performance of

the exercise was evaluated as good by the operational end-users (among whom French Navy and Greek Navy) invited to assess the usability and relevance of the system for enhanced maritime surveillance.

The outcomes and components of the exercise will be used to support 2014 demonstration for Eastern Mediterranean Sea in Greece.



The French-Greek team in La Ciotat

The next future

2014 will be the year of the Western campaign in Greece. The definition of the system configuration, deployment and scenarios has already started. This

campaign will be actively supported by HMOD and Hellenic Coast Guards. Not only as observers but also as active players that will bring assets (vessels and aircraft). Beside the HQs around Athens,

the demo will be played in Samos, Crete and Adriatic Sea. MMITOC will of course be welcome to attend.



Where is Piracy going from an insurance point of view?

by George Pateras
Shipping Advisor of AMSCC

In the Gulf of Aden and the Indian Ocean, activities have quelled, but ransoms have become astronomical, it is reported that the ransom to release the SMYRNI reached 16 million dollars, after 13 months high-jacked, and that does not include the ransom delivery costs, the money insurance costs, and the ship-owners and crew claims for damage, sickness, repatriation, property loss and fuel costs. Additionally it has been reported that the

Owners are claiming for a Total Loss of the vessel as she was detained for over six months, and according to the contract terms they are entitled to do so. The market underwriters are challenging the claim because the ship was, eventually, released and so not lost to the owners. This will mean increased legal expenses and a potential claim for the insured value of the vessel; we are talking in millions here and not in thousands. On the other hand, the Gulf of Guinea

has become a veritable hive of activity, with almost daily attacks being reported. Unfortunately, attacks in this region are mostly successful and often lead to a loss of life as opposed to a fairly low success rate off the East coast of Africa. From an insurance point of view I can give you some data, based on information provided by the Hellenic War Risks insurance association, this mutual insurance association covers about 70% of the Greek owned fleet for war risks with

a total insured value of about 90 Billion Dollars.

the reported transits have varied over the years from 2009 to 2013. One anomaly is the fact that the Gulf of Aden/Indian Ocean Area was greatly extended in 2011 – hence the sharp rise in the number of reported transits. The figure for 2013 is at the end of April; so proportionally that would represent about 2500 transits for the whole year. I believe that this does not actually represent a reduction in transits but a reduction in reported transits, as owners become complacent as they see reported Piracy activity reducing. This fact is also confirmed by the data on “Noncompliance” to BMP, released by the MSC HoA. You are all aware that

compliance to BMP, so as not to be on their list, just means reporting the transit to the MSC HoA. Actual physical compliance to BMP involves far more than just reporting; it involves a whole series of deterrent steps such as citadels and razor wire etc, which I am sure you are all familiar with. This begs the question: Is piracy in the Gulf of Aden and the Indian Ocean on the decline, or are the Pirates getting wise to the fact that there are more and more weapons on commercial ships. So are they just holding back until we become complacent? There are many factors involved: firstly the impressive protection

provided by the Navy ships, for which we are all truly grateful, secondly the general awareness by the crews, thirdly the increase use of guards, both armed and un-armed and finally the political and diplomatic work in Somalia itself. It is worthy of mention that this can also be seen in insurance terms; in 2011, it was estimated that approximately 25% of the ships transiting the HRA received a 30% war risk discount for the use of armed guards, in 2012 it was estimate that 50%



of ships receive a 40% discount for the use of armed guards.

So let's now look at the seizure statistics over the past 5 years; please bear in mind these are the statistics of the Hellenic War risk association and not based on Global figures. One thing that comes out immediately is that we have experienced, on a percentage basis, far more successful attacks in the Gulf of Guinea than in the Gulf of Aden and Indian Ocean. That is why the Additional War Risks premium is about 5 times the price. For example a 55,000 MT handy-max Bulk carrier will pay approximately between 10 and 12,000 US\$ to transit the Gulf of Aden and Indian Ocean (including a 50% discount for armed or un-armed guards on board) compared to over 50,000 US\$ for a 7 day stay at a Nigerian port. These figures are based on a ship value of about 40 million dollars.

Despite the fact that the Lloyds joint War Committee considers the Gulf of Guinea far more dangerous than the Gulf of Aden, as reflected in the additional premium rate, the claims paid are less only due to the volume of transits. In very broad terms, the total cost for the Hellenic War Risks Insurance Association of all Gulf of Aden/Indian Ocean claims (including not only ransoms, but also ship damages and detention, as well as crew claims) since 2009 are in the region of 85 million Dollars were as the claims paid over the same period for the Gulf of Guinea is about 3 million dollars.

The fundamental difference between the "opus operandi" of West African pirates and East African pirates is that West African pirate is more violent, has no regards for human life as he is after the cargo and not the ship, the East African Pirate is after the Ship, he is selling back the ship to the Owners and the Owner is actually buying back their crew. These pirates are not ideologically motivated, they have no political agenda, they are common thieves. What a sorry state of affair we find ourselves in at the dawn of the 21st century. No seaman signed up for this type of aggravation.

Despite the longest coastline in Africa, at 3025 kilometres, Somalia has not been able to make proper use of its seaports as has its neighbours Djibouti and Kenya. The annual GDP per capita is about \$600, and the young adult unemployment is at astronomical levels, so the possibility

of a pirate earning up to \$6,000 for a successful hijacking of a commercial vessel makes good business sense.

To further exasperate the situation the one time profitable Somali fishing industry is, and has been in steady decline for quite some time. Despite repeated accusations of illegal fishing and toxic waste dumping in Somali waters, no concerted international effort has started, this combined with the fishermen being restricted to local market, has reduced their income to a level that reiterates the benefits of becoming a pirate or a people-smuggler. Thankfully, many families rely on remittances from Somalis working abroad it is reported that the diasporas send back to Somalia about \$1.6 billion each year.

It is reported by "Oceans Beyond Piracy" and from "reactions.net" that the economic cost of Somali Piracy in 2012 was about 6 Billion US\$. Interestingly 1% of which covers the insurance costs and about 10% the ransoms and added expenses of release. This is in fact about a 13% decrease from the previous year 2011. Furthermore, the UNCTAD 2012 review of Maritime Transport notes that the average hull value of vessels transiting the Suez Canal was estimated at 26.6 million US\$ which is an increase of 10% on the previous year. This is attributed to less low value vessels transiting and more high value vessels.

Tankers for example, predominantly high value vessels, represent 19.7% of the 2011 total traffic and 21.6% in 2012. This implies to me that fewer Ship-owners are reporting transits through the Gulf of Aden, as War risk premiums are based on ships value, during this poor freight market, and this in conjunction with the reduction in attacks can explain the 13% drop in the economic cost of Somali piracy mentioned earlier.

Moving on to the Gulf of Guinea, what a mess, with effect from 00:01 hours BST on 01 September 2011, Benin and the Gulf of Guinea have become Additional Premium Areas. This additional premium area or High Risk Area is defined as: The Gulf of Guinea, but only in respect of the area enclosed by: On the northern side, the coast of Benin and Nigeria on the western side, a straight line from the border, on the coast, of Benin and Togo to position 3° N, 1° 38' E on the southern side a straight line from there to position 3° N, 8° E and on the eastern side, a straight line from



there to 4° N, 8° 31' E and then from there to the border, on the coast, of Nigeria and Cameroon, incidentally the Ivory Coast is also a reportable additional premium area. So whilst things are easing in the Gulf of Aden the opposite can be said for the Gulf of Guinea.

There are often congestion delays to the berthing of vessels especially the bulkers in the cement and rice trades, where 30 to 40 day delays are not uncommon. These vessels drift 100 or so miles off the West African coast keeping a watchful eye out for pirates. Of course the tankers with distillate fuels such as diesel or gasoline are far more at risk than the bulk carrier, nevertheless the ruthlessness of the regional pirates warrants a vigilant crew. So why have things deteriorated to such an extent in the vicinity of such oil rich West African nations.

We must not only look at the financial losses, Nigerian government estimates are said to be as much as 400,000 bbl/day or about 60,000 MT/day which is approximately equivalent to 1.3 US \$ billion a month, but at the serious danger to the crew and the risks to the flow of energy.

Why is the Gulf of Guinea important?

Quoting Ambassador Ukonga:

- Geographical location: It is an important maritime route. in the global supply of energy.
- A major source of hydrocarbon resources: The region produces about 5.4 million barrels of crude oil per day.
- Investment: Oil companies from the West and the East have made huge investments for both onshore and offshore drilling.
- Rich fishing and other marine resources: Fishing trawlers come to the region from all over the world.
- Rich forestry, agricultural and mineral resources: All these are exported through the Gulf of Guinea to markets in Europe and America.

The Gulf of Guinea region supplies the world markets with about 5.4 million barrels of oil per day (bbl/d). Putting this in perspective, this is equivalent to more than the total amount imported by EU27 countries in 2008 (4.9 mbb/d) and over half of US crude oil imports in 2008 (9.8 mbb/d). Oil supply from the region in 2011 was equivalent to 40% of total EU27 and 29% of total US petroleum consumption in the same year. Angola and Nigeria

As a marine insurance association the Hellenic covers the entire maritime adventure, this includes the damage to the ships, the loss of the cargo, the death and injury to the crew. We do not only have the vessels seized off shore and the cargo stolen we have violence against the crew and property damage whilst in port; we have crews kidnapped for quick ransom settlements.

account, respectively, for 34% and 47% of the region's total oil supply. Piracy in the Gulf of Guinea accounted for nearly 30% of attacks (427 of 1,434) in African waters, East and West, between 2003 and 2011, and that proportion is increasing. This is partly due to successful counter-piracy operations off the coast of Somalia as mentioned before. One needs to identify the reasons in order to find the solution. The underlying problems and root causes cannot simply be pinned solely on Nigeria, maritime security is a regional rather than a purely Nigerian concern as pirates cross international boundaries in order to seize valuable cargos from commercial ships. The risks are not localized in Nigeria alone as can be seen by the region covered by the additional premium insurance area and the wide ranging areas of attack along a coast line of over 6,000 km from Guinea south to Angola. Obviously piracy attacks are more focused on Nigeria as the largest, by far, oil producer in the region.

On 29 November 2012, the Gulf of Guinea

Commission (made up of: Angola, Nigeria, Cameroon, Equatorial Guinea, Sao Tome and Principe, Gabon, Congo and DR Congo) signed the Luanda Declaration on Peace and Security in the Gulf of Guinea Region. The declaration states that in response to increasing maritime insecurity, GGC member states need to establish regional cooperation and inter-state dialogue.

It is blatantly plain to the markets that this deteriorating situation is increasing the cost of maritime transportation much the same as in the Gulf of Aden through higher insurance premiums, decreasing revenues for ports of the region as fewer ships are willing to risk the maritime adventure, serious oil theft, with some countries losing up to a third of production to offshore theft; poaching and overfishing, with disastrous consequences for local fishing communities with the depleting fish stocks, and political unrest leading to disruption of oil production.

So what can be done to improve the situation beyond the very proactive efforts of the Gulf of Guinea Commission? Much as in the Gulf of Aden efforts were started with a naval presence, operation "Atlanta" and the introduction and compliance to, Best Management Practices, and more recently the diplomatic and political solution ashore. All these combined efforts have, as we all want to believe, reduced the level of piracy activity in The Gulf of Aden and Indian Ocean. I appreciate that there are serious differences between the two regions, firstly Somalia is a poor country and basically a failed state; whereas Nigeria is one of the richest oil producing countries in the area and has a democratically elected government and to a certain extent is subject to the rule of law.

As a marine insurance association the Hellenic covers the entire maritime adventure, this includes the damage to the ships, the loss of the cargo, the death and injury to the crew. We do not only have the vessels seized off shore and the cargo stolen we have violence against the crew and property damage whilst in port; we have crews kidnapped for quick ransom settlements. The kidnapers come on board, usually in cahoots with the corrupt local officials and violently take high value crew that are released a few days later for sums upwards of a few hundred thousand dollars.



The visit of the Greek Minister of National Defence, Mr D. Avramopoulos



The visit of the First Sea Lord and Chief of Naval Staff of the Royal Navy, Admiral Sir George Zambelas, KCB DSC ADC DL



The visit of the Ambassador of USA to the Hellenic Republic, Mr David D. Pearce



The visit of the Commander US Sixth Fleet, Commander TASK FORCE SIX, Commander STRIK FORNATO, Deputy Commander US Naval Forces Europe, Deputy Commander US Naval Forces Africa, Joint Force Maritime Component Commander Europe, Vice Admiral Philip S. Davidson, US N



The visit of the US Chairman of Joint Chiefs of Staff , General Martin E. Dempsey



The visit of the UNIFIL Maritime Task Force (MTF) Commander, Rear Admiral Joese De Andrade Bandeira Leandro BRA (N)

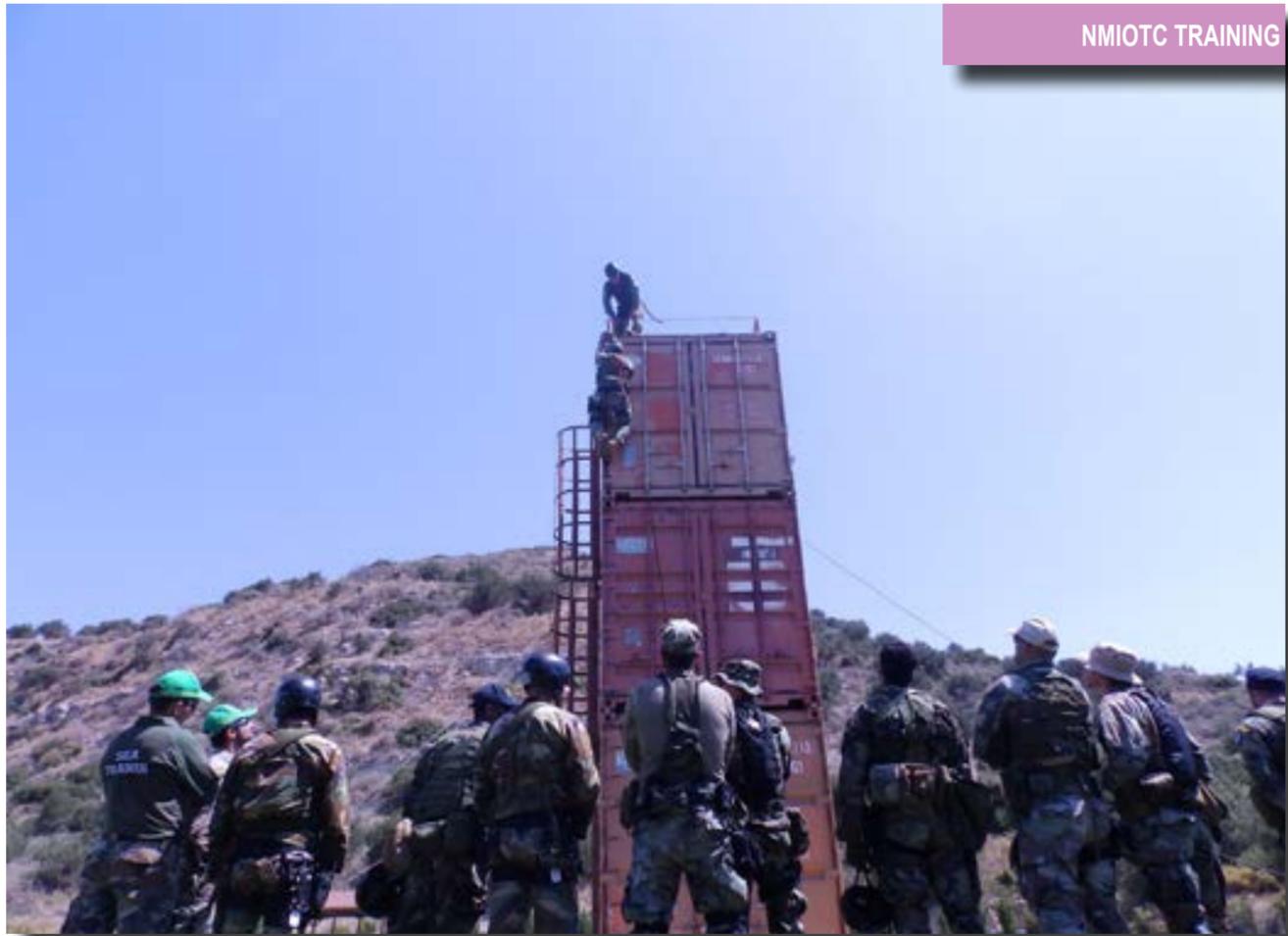
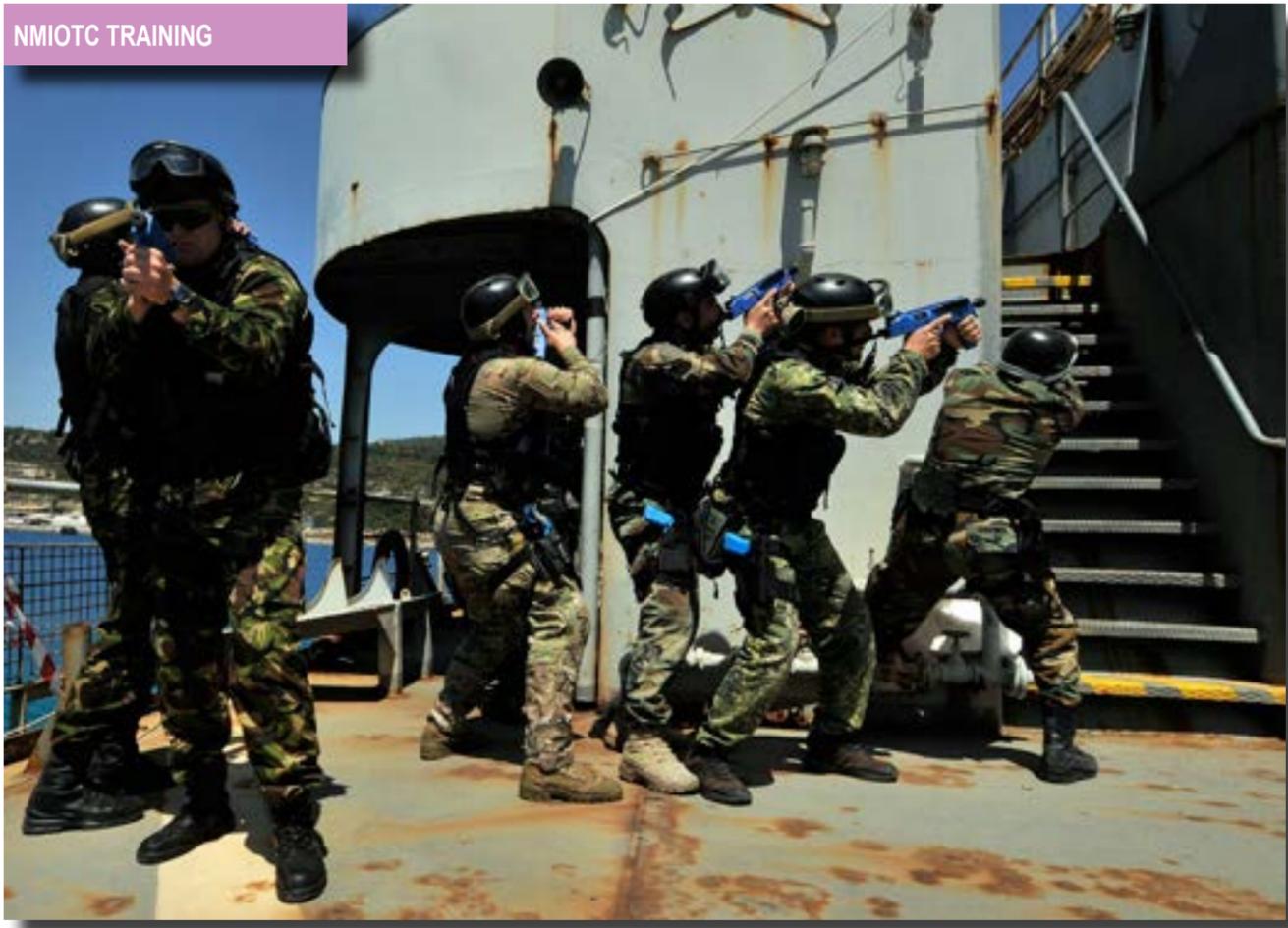


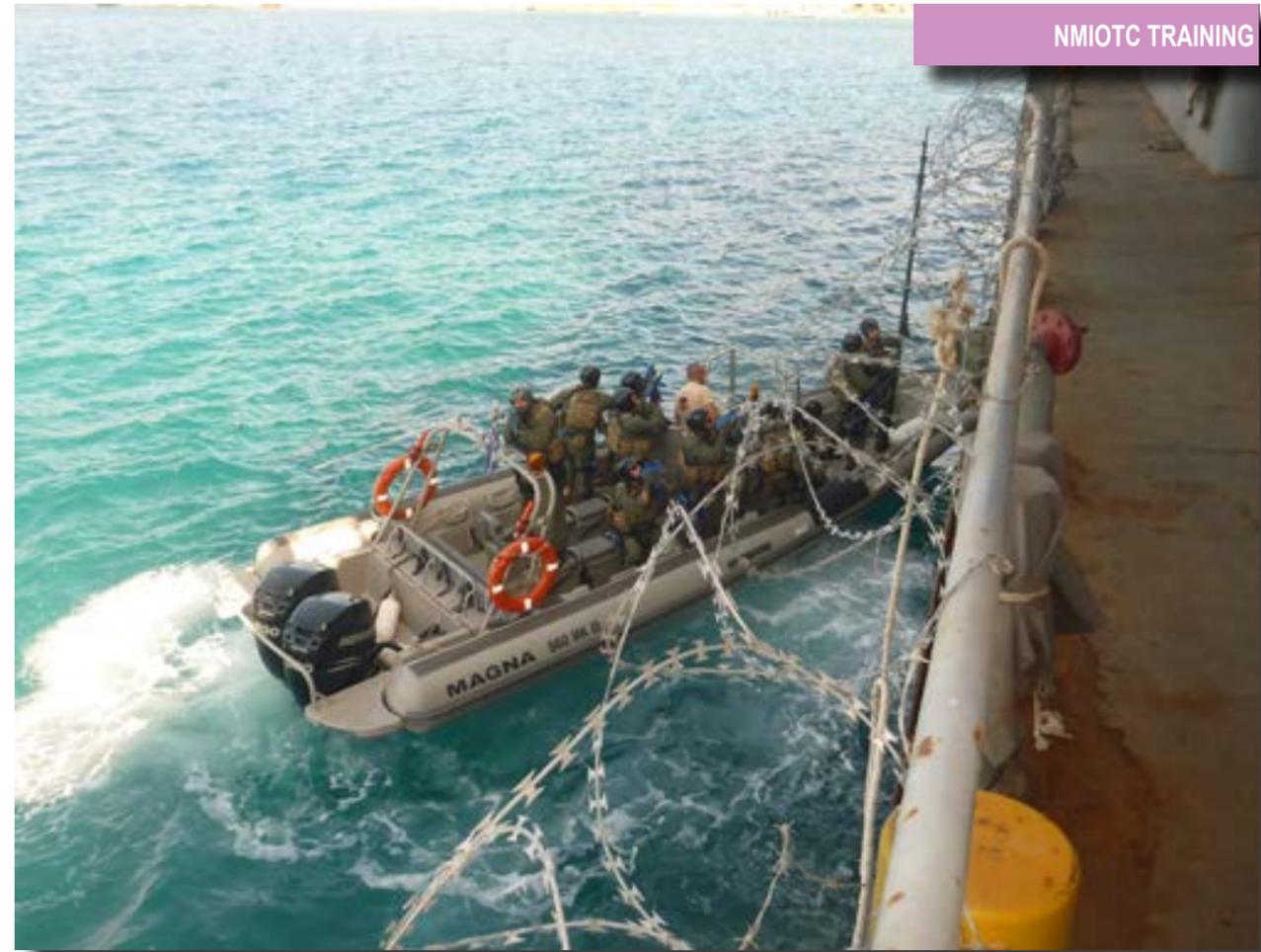
The visit of the Commander General of US MEF RAYMOND FOX



The visit of the Commander in Chief of Montenegrin Navy Captain Darko Vukovic MNE (N)













The Morale, Welfare & Recreation (MWR) is a subordinate office which is manned on a volunteer basis by dependent members of NMI-OTC's personnel. This Office is providing services for the benefit of the trainees, the attendees and visitors of NMIOTC, as well as for the permanent staff of the Centre and is responsible for the following:

- a. Organization of cultural events and trips in historical sites and natural monuments.
- b. Organization of ceremonies and protocol events (lunches, cocktails etc.).

- c. Organization of ceremonies regarding the welfare of the staff (Christmas tree ceremony etc).
- d. Organization of athletic/sports events.
- e. Achieving and maintaining positive contacts with POC from local entertainment providers.

- f. The management and the operation of the library of the Centre.
- g. Cooperation with the respective offices of NAMFI and NSA in order to coordinate the required actions and become cost effective.

MWR OFFICE *activities*



Group photo in the entrance of the Samaria Gorge



From Samaria Gorge



Group photo. Trekking to Milia



Group photo from the trip to Istanbul



7k FUN RUN



7k FUN RUN



NMIOTC Program of Work 2014 (NPOW 2014)

Month	Week	Day	Activity	
JAN	WK 01	1		
		2		
		3		
		4		
		5		
		6		
		7		
	WK 02	8		
		9		
		10		
		11		
		12		
		13		
		14		
	WK 03	15		
		16		
		17		
		18		
		19		
		20		
		21		
	WK 04	22		
		23		
		24		
		25		
		26		
		27		
		28		
	WK 05	29		
		30		
		31		
New Year's Day				
New Year's Day				
New Year's Day				
New Year's Day				
FEB	WK 06	1		
		2		
		3		
		4		
		5		
		6		
		7		
	WK 07	8		
		9		
		10		
		11		
		12		
		13		
		14		
	WK 08	15		
		16		
		17		
		18		
		19		
		20		
		21		
	WK 09	22		
		23		
		24		
		25		
		26		
		27		
		28		
	WK 10	29		
		30		
		31		
Shrove Tuesday				
Ash Wednesday				
Good Friday				
Easter Monday				
MAR	WK 11	1		
		2		
		3		
		4		
		5		
		6		
		7		
	WK 12	8		
		9		
		10		
		11		
		12		
		13		
		14		
	WK 13	15		
		16		
		17		
		18		
		19		
		20		
		21		
	APR	WK 14	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 15	8	
			9	
			10	
11				
12				
13				
14				
WK 16		15		
		16		
		17		
		18		
		19		
		20		
		21		
MAY		WK 17	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 18	8	
			9	
			10	
	11			
	12			
	13			
	14			
	WK 19	15		
		16		
		17		
		18		
		19		
		20		
		21		
	JUN	WK 20	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 21	8	
			9	
			10	
11				
12				
13				
14				
WK 22		15		
		16		
		17		
		18		
		19		
		20		
		21		
JUL		WK 23	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 24	8	
			9	
			10	
	11			
	12			
	13			
	14			
	WK 25	15		
		16		
		17		
		18		
		19		
		20		
		21		
	AUG	WK 26	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 27	8	
			9	
			10	
11				
12				
13				
14				
WK 28		15		
		16		
		17		
		18		
		19		
		20		
		21		
SEP		WK 29	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 30	8	
			9	
			10	
	11			
	12			
	13			
	14			
	WK 31	15		
		16		
		17		
		18		
		19		
		20		
		21		
	OCT	WK 32	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 33	8	
			9	
			10	
11				
12				
13				
14				
WK 34		15		
		16		
		17		
		18		
		19		
		20		
		21		
NOV		WK 35	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 36	8	
			9	
			10	
	11			
	12			
	13			
	14			
	WK 37	15		
		16		
		17		
		18		
		19		
		20		
		21		
	DEC	WK 38	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 39	8	
			9	
			10	
11				
12				
13				
14				
WK 40		15		
		16		
		17		
		18		
		19		
		20		
		21		
JAN 2015		WK 41	1	
			2	
			3	
			4	
			5	
			6	
			7	
		WK 42	8	
			9	
			10	
	11			
	12			
	13			
	14			
	WK 43	15		
		16		
		17		
		18		
		19		
		20		
		21		
	WK 44	22		
		23		
		24		
		25		
		26		
		27		
		28		
	WK 45	29		
		30		
		31		
Boxing Day				

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)
 - 16 Course 8000 - Maritime C-IED (Pilot Course)
 - 14 Course 9000 - Legal Issues in MIO (Pilot Course)
- ▲ Updated 08 Apr 2014
 - ▲ Training ship ARIS maintenance during summer may partially affect the provision of BT practical training During P.E. 14 Underway Phase NMIOTC Officers will man CIMOC
 - ▲ Training Tuition Fees on NMIOTC Dir 60-1(Change 6)

ACTIVITIES

- 1 NAB (NMIOTC)
 - 2 NCB (HNGS)
 - 3 NMIOTC Annual Conference
 - 4 FPE "Phoenix Express 2014"
 - 5 CJOS-CSW COE MSA WS
 - 6 WMD In MIO NPS Experiment
 - 7 EU Comprehensive Approach to MS Challenges in the Global Maritime Domain, Seminar
 - 8 ATP 71 WS
 - 9 M-ASAT (TBC)
 - 10 MCMSB Meeting
 - 11 PRE-SAIL "Phoenix Express 2014"
 - 12 Maritime Information Services Meeting
- 1 Inport training phase Exercise "Phoenix Express 2014"
 - 2 Underway phase "Phoenix Express 2014" (26 May - 03 Jun)
 - 3 Exercise NIRIS 2014
 - 4 Exercise NOBLE DINA
 - 5 Exercise ADRION LIVEX 2014
 - 7 Training of Norwegian Coastal Rangers
 - 8 Training of IMO DCoC
 - 9 Training of German Specialized Boarding Team
 - 10 Training of USCG
 - 11 Training of 22 MEU
 - 13 EP MIO Event 2014
 - 17 Biometrics Collection Device Handling Training
 - 18 Training of Hellenic Army SOF (TBC)
 - 19 Sea Port Training
 - 20 Training of Dutch MAREOD
- 21 Evidence Collection- Forensic Science Training (Train the Trainers)
 - 22 Training of Hellenic UDT (TBC)
 - 23 Training of UK RM
 - 24 Training of Lithuanian BT
 - 25 Training of EUCOM-DEA
 - 26 Training of Hellenic Airforce SP (TBC)
 - 27 Training of Hellenic Airforce SOF (TBC)
 - 28 Training of Austrian Army SOF (TBC)
 - 29 Training of Swedish Marines
 - 30 Instructors "Train the Trainers" Course

▲ Updated 08 Apr 2014

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Education and Training

NATO Maritime Interdiction Operational Training Center

5th Annual Conference



BUILDING A LAW

ENFORCEMENT CULTURE

AT SEA FOR A MORE

SECURE MARITIME

ENVIRONMENT

24-26 JUNE 2014

N.M.I.O.T.C.



APRIL 2014