Prologue

This paper deals with the situation of global maritime piracy in recent years. The analysis covers several areas and points of view because as piracy has significant impact on different aspects of navigation, human and economic development.

First, it is important to understand the definition of piracy according to United Nations Convention on the Law of the Sea (UNCLOS) and to realise its magnitude. The main hot spots of piracy activity are contextually described: Gulf of Aden, Strait of Malacca, Gulf of Guinea and others such as South America or South China Seas.

Then, in order to show the origins of piracy, different factors as humanitarian disasters, overfishing and pollution are presented.

The second part of the paper relates to the measures that can be taken against piracy. General preventive measures, or what to do when a pirate's boat is identified or when pirates are on board, are presented and suggested to be included in a a "Piracy Fighting guidelines" (i.e. including information of pirate's procedures or technological systems and equipment).

Since the objective is also to find theoretical resolutions to the conflict, international policies and actually military intervention are considered.

The paper is based on a compilation and analysis of structured and linked data from the last years, which finally provides a detailed description of the past and present situation and an analysis of preventive measures in a range of this conflict that affects many of the most important sea passages of the world.

Introduction

Piracy is defined as any illegal act of robbery or hijacking and armed robbery at sea dangerous to human life, safety of navigation and the environment. The following definition of piracy is contained in article 101 et seq of the 1982 United Nations Convention on the Law of the Sea (UNCLOS):

Article 101

Piracy consists of any of the following acts:

(a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the 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 of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

The practice of this type of crime is increasing up at unexpected levels in recent years, especially in areas such as Somalia and the Gulf of Aden where the situation is particularly relevant in spite of the measures adopted by International Maritime Organization (IMO) and other international organisations.

As starting point, this analysis focuses on the causes of piracy. It gathers relevant information to cover the different aspects that would allow to analyse them under a comprehensive perspective. Piracy is an activity related not only to the navigation itself, but also to the human and economic development of the affected areas.

The main potential causes of piracy in a given area are a dysfunctional political situation associated to a high level of poverty in the population, both established in certain geographical points with intense traffic of vessels. In addition, it is often the case that, in some of those areas, weapons are easily accessible and their use became quite common. Ordinary people or even kids can come to collect millions of euros through kidnapping with no advanced technological resources.

Piracy has not been shown to be an issue for organized crime so far. It is still considered to be a phenomenon of scattered clans, which presents a challenging framework with difficult access to their dynamics.

The objective of analysing such an international conflict is to achieve a more secure shipping trade, protecting the integrity of human life and also protecting the cargo. It identifies how to optimize the implementation of possible preventive measures both on board and ashore, and before, during and after there is a risk of piracy attack. It is also important to find out which kind of attitude should be taken in case of an actual attack.

Academically, it is encouraging to get a multidisciplinary report, combining practical-scientific rigor with legal and sociological readings, press articles and statistics that describe situations which are actually part of Contemporary History, to finally get to consider that all the ramifications resources which could being used against piracy are required.

Professionally, there is a similar motivation in learning about the sea as stage, identifying who are involved in the whole process of prevention, and whosoever are in the action and resolution. At this end, the professional key is the cooperation with joint and effective effort as a result.

The technical investigation starts with the most varied compilation of documents (conventions, regulations, reports, conferences, recommendations and guidelines...) coming directly from the major agencies such as the Maritime Safety Committee (MSC) of the IMO, the Piracy Reporting Center of the ICC International Maritime Bureau (ICC-IMB PRC), INTERTANKO or INTERCARGO among others.

This compilation is followed by a process of research that describes, quantifies and explains at the same time the problem in different high risk areas through an effort of conceptual categorization and numerical data and statistics analysis generated from 2007 to 2010.

In addition, in the context of the sociological theory, a method for systematic monitoring of the evolution of piracy cases of 2009 is applied in order to obtain a non-probability sampling in an intentional way. The objective is to assign to each case, in accordance to its main features, a qualitative value which may help to extract practical reflections and to identify specific measures to implement.

This kind of procedure is also applied in an analytical reading of interviews, opinion pieces, and other sources that can be treated as independent variables from which conclusions can be made real and concrete.

Finally, the data jointly analysed and clearly presented (comparative maps, tables, graphs and real examples, detailed explanations, etc.) intend to lead to the understanding of the phenomenon of piracy, how big it can become, its importance, its causes, the need to address it, and the practical methods to fight piracy in today's world.

A. ANALYSIS OF THE SITUATION

A1. Question Words about global maritime piracy

A1.1. Where: the main piracy-related hotspots

The general distribution of piracy in the world is presented in two worldwide maps. Available data show the evolution from 2005 (Fig. 1) to 2009 (Fig. 2).

Fig 1- Worldwide piracy in 2005[1].
Actual cases in red and attempted kidnapping in yellow

[1] Live Piracy Map 2005 from International Maritme Bureau (Piracy Reporting Center.) [on line]: Available at: <www.icc-ccs.org/piracy-reporting-centre/imb-live-piracy-map>

Fig 2- Worldwide piracy in 2009[2].
Actual cases in red and attempted kidnapping in yellow

Those maps, as well as an interactive version of 2010 can be found on the

website of the ICC-CSS IBM (PRC)[3].

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[2] Live Piracy Map 2009 from International Maritme Bureau (Piracy Reporting Center.) [on line]: Available at: <www.icc-ccs.org/piracy-reporting-centre/imb-live-piracy-map>

Several issues that can be inferred from these two figures:

- An increasing number of attacks around the African countries, mainly around Nigeria at the west coast and the area around the Horn of Aden at the eastern coast.

- A shift of focus of worldwide piracy from Southeast Asia to the South of the Suez Canal.

- A significant trend of expanding the geographical range of action. The expansion of pirates across the Indian Ocean reaches the coast of India, from Madagascar to the side boundaries: Tanzania and Papua New Guinea, describing overall more than 10,000 NM of coastline where navigation is potentially dangerous.

The IMB strongly urges all Shipmasters and Owners, to report all incidents of actual and attempted piracy and armed robbery to the IMB PRC. This is the first step in the response chain, and it is vital in ensuring that adequate resources are allocated by governments to deal with the problem. A set of transparent statistics from an independent, non-political, international organization such as the PRC acts as an effective catalyst to achieve this goal.

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3 International Chamber of Commerce, Comercial Crime Services International Maritime Bureau, Piracy Reporting Center website: http://www.icc-ccs.org/

Next, a zoom in those are the most conflictual locations where it is reported the highest piracy activity. It is essential to know the differences between each one and their points of convergence in order to establish base standards.

A1.1.1. Gulf of Aden

The region is ideal for piracy because the Gulf of Aden is the gateway to the Suez Canal, and some 22,000 tankers, carrying around 8% of the world's trade, including more than 12% of the total volume of oil transported by sea, as well as raw materials and finished goods. Freighters and merchant ships pass through it every year. Pirates are now ranging farther and farther out to sea, attacking ships off the coast of neighbouring countries such as Yemen, and their impact on global shipping is growing.

Currently is the center priority for action against piracy of the IMO, in addition to the above highlights that it is also important to take measures to ensure the uninterrupted delivery of humanitarian aid to Somalia effected by ships chartered by the World Food Programme[4].

Focus

- Somalia/Gulf of Aden: The Horn of Africa has seen major growth in Somali pirates who are well armed and focus on get the ransom of the

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4 **Resolution 1772** (2007), adopted by the UN Security Council at its 5732nd meeting, on 20 August 2007.

vessel and the crew. Attacks are taking place farther and farther from the coast, indicating that this specific kind of pirate that started attacking in skiffs are now launching from larger mother ships

- Tanzania: Compared, the trend for pirate activity has remained constant at about a dozen a year in waters close to the capital Dar es Salaam.

In a more detailed way, figures 3 and 4 clearly show the increase in actual cases (in red) and attempted kidnapping (in yellow) in those areas

Fig 3- Detailed view of piracy cases in 2005[5].
Actual cases in red and attempted kidnapping in yellow

[5] Live Piracy Map 2005 of Gulf of Aden from International Maritme Bureau (Piracy Reporting Center). [on line]: Available at: <www.icc-ccs.org/piracy-reporting-centre/imb-live-piracy-map>

Fig 4- Detailed view of piracy cases in 2009[6].
Actual cases in red and attempted kidnapping in yellow

The region most representative of this area is Putland, which gives the greatest concentration of pirates. It is a self-proclaimed autonomous state of Somalia. It occupies the tip of the Horn of Africa, Northeastern Somalia, and East of the self-proclaimed Republic of Somaliland.

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[6] Live Piracy Map 2009 of Gulf of Aden from International Maritme Bureau (Piracy Reporting Center). [on line]: Available at: <www.icc-ccs.org/piracy-reporting-centre/imb-live-piracy-map>

There is where pirates anchor on its banks the majority of hijacked ships and criminals are sheltered, being an enclave often chaotic and inaccessible to the security forces, as will be described more broadly in subsequent chapters of the document.

A1.1.2. Strait of Malacca

In the second place of the ranking of the top piracy areas is the location of the Strait of Malacca, which is the perfect example of typical dangerous place for vessels. Between Malaysia and Indonesia, those 500 miles are in the second place of the piracy attacks ranking, under Gulf of Aden.

Nevertheless, the number of attacks has dropped in recent years as is shown in maps developed by IMB (Fig. 5 and 6) due to the increase and aggressive patrols by the littoral states authorities since July 2005.

This important transit area remains being surpassed only by the growing rise that is occurring around the Suez Canal. Geographically, both are very narrow passageways, which allow pirates to act following a strategy of appearing by surprise and approaching the ship before being detected.

Fig 5- Detailed view of piracy cases in 2005[7].
Actual cases in red and attempted kidnapping in yellow.

Fig 6- Detailed view of piracy cases in 2009[8].
Actual cases in red and attempted kidnapping in yellow.

[7] Live Piracy Map 2005 of Strait of Malacca from International Maritme Bureau (Piracy Reporting Center). [on line]: Available at: <www.icc-ccs.org/piracy-reporting-centre/imb-live-piracy-map>

[8] Live Piracy Map 2009 of Strait of Malacca from International Maritme Bureau (Piracy Reporting Center). [on line]: Available at: <www.icc-ccs.org/piracy-reporting-centre/imb-live-piracy-map>

The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against ships in Asia (RECAAP), which was concluded in November 2004 by 16 countries in Asia, allows to RECAAP Information Sharing Center (ISC) facilitating the sharing of piracy-related information. It is a good example of successful regional cooperation implicated in this zone which IMO seeks to replicate elsewhere.

Thanks to that, some countries have made great strides in reducing piracy risk. Indonesia, which held the record for the highest number of piracy attacks between 2003 and 2007, saw only one incident reported in the first quarter of 2009, compared to five incidents in the corresponding period in 2008 and 21 in the first three months of 2004.

However, what works to reduce piracy in one region may not work in others. The international patrol effort has done a great deal to reduce attacks in the Malacca Straits. But in the Indian Ocean off Somalia, the area of water is simply too vast for the police to control, so military patrols only help a little and may even escalate violence.

Focus

- Malacca Strait: A few years ago, this was the chief hotspot worldwide.

- Bangladesh: Number of attacks currently falling. Particular focus of pirates is on ships anchoring in Chittagong area.

- Philippines: The Philippine archipelago has a very long history of piracy. Lately, rates have remained constant at six to seven reported attacks per year.

- Indonesia: Attack levels stable and fairly low lately. Due to vast expanse of water covered by the country and variety of ships, many attacks may go unreported, so ships are advised to stay alert.

A1.1.3. Gulf of Guinea

Another piracy hotspot today is the Gulf of Guinea, Nigeria specifically. The country has a large reserve of oil offshore that causes conflicts between residents, the government and the oil exploring companies. Very few large vessels are pirated in Nigeria, rather, offshore installations and smaller service vessels are often the target. Over the last couple of years the number of attacks around these ports has increased, as can be observed in figures 3 and 4, especially in the Lagos and the Bonny River regions. This is one of a few regions which is in real danger of becoming a larger piracy hotspot. Action here should be taken from an extremely precautionary reason.

Information from external sources would suggest that the majority of incidents related to the oil industry and fishing vessels go unreported. It is a

fact that there is much less infrastructure for case detection and military presence, so attacks perpetrated in Nigeria are quantitatively less reported and qualitatively more violent. Unlike the Gulf of Aden, pirates from Gulf of Guinea are more interested in armed robbery looking for a booty of cash or equipment instead of kidnapping.

The problem of pirate attacks linked to rebels' activities has called the attention of local governments and multinational companies with interests in the region. The danger of spread of the scourge of piracy is then the main fear.

Focus

- Nigeria and Ghana: The Movement for the Emancipation of the Niger Delta (MEND), with a large and well trained army, puts a halt to both ships and oil platforms.[9]

    Moreover, Lagos is the city that is growing fastest in the world and imports 75% of its consumer goods. This results in a significant increase in traffic. Furthermore, due to political conflicts and the rapid increase in population, the country's bureaucratic body is not working well, so sometimes there are more than 100 vulnerable ships waiting at anchor for weeks.

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9 According to a study by the International Union of Marine Insurance (IUMI), detailing the political motivations and maritime terrorism.

- Bakassi Peninsula: Cameroon, the attacks are also often made by an armed group: Bakassi Freedom Fighters (BFF)[3]. Armed groups are aggravating the situation because their policies also include the procurement of advertising with the kidnapping of Westerners, behind economic reasons.

- Bioko Island: Equatorial Guinea, its tropical rainforest is the perfect environment for pirate strategies to approach the vessels.

A1.1.4. Others

Central and South America

Twelve incidents have occurred in the anchorage of Callao in Peru in 2009 compared to five the previous year. Other countries affected are Brazil, Colombia, Costa Rica, Ecuador, Haiti and Venezuela. Most of these attacks were successful and were carried out while the vessels were berthed in port or while at anchor. This is a similar trend as in 2008.

This is an area with an inflexible policy framework to relinquish control and patrol their own territorial seas, mainly due to the fact that member nations feel that such arrangements would affect its sovereignty and security. An example are the UN resolutions 1816 and 1838 on active military fighting piracy which were opposed by some West African, Caribbean and South America countries, and finally agreed therefore to apply only to Somalia, may

be because it is a country that has no representation in UN to require amendments to protect its sovereignty.

In any case, central and South America are far from reaching dangerous piracy levels as the other areas mentioned above.

South China Seas

Thirteen incidents were reported in 2009 by ships steaming in the South China Seas. This is the highest number of incidents in the previous five years. Of these, eleven were boarded, one vessel was hijacked and one reported an attempted attack. In some attacks the bridge crew was physically removed from the bridge for a short period of time.

Even if there has been significant improvement in the safety and security of the SE Asian and Far East waters, it still remains an underlying potential for incidents to increase without any prior warning. The pressure on the pirates and the robbers has to be maintained by the littoral states and the constant physical presence in the waters.

Bangladesh

Chittagong has shown a slight increase in the number of attacks in 2009 as compared to 2008. Most of these have been of an opportunistic nature.

Of the 17 vessels attacked, 14 were boarded and ship stores stolen. Most of the incidents have taken place within the Chittagong anchorage.

London

One of the highest authorities as an expert on piracy is Mr. Andrew Mwangura, an specialist on the complex issue of Somali piracy and director of Maritime Assistance Program in East Africa.

After 12 years studying the area, his theory[10] states that the real pirates who put in check the international shipping are not based on the coast of Somalia looking out for the freighter and they do not randomly choose their victims. On the contrary, they are prepared and the attacks are well planned in advance. In his opinion, the recent kidnappings have been orchestrated from the United Kingdom in a secret operation of the intelligence services. Mwangura said at a press conference in Nairobi[4] that:

> *"The real pirates are businessmen, big sharks engaged in illegal arms trafficking of humans, who profit from illegal fishing and dumping of waste on the Somali coast, and have offices in Nairobi, Mombassa, London and Dubai"*

His claims are based on several of his observations, such as:

- Pirates know everything about the targets and their routes. This is only possible if their access to information is based in a superstructure with highly placed informants. (Ships voluntarily provide nformation to

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10   Statements made to the Nigerian newspaper *The Guardian*, in november 2009, which was echoed by the media around the world.

various international organisations and the UK is usually well placed at the heart of these organisations).

- Professionalized pirates possess advanced technology that allows them to very precisely locate the ships to be hijacked. To work effectively it would be important to identify the dealer of such technology.

- It is evident for Mr. Mwangura that pirates try to particularly avoid British flags and that despite of the fact that the UK is one of the largest merchant fleets in the area, it has hardly been attacked in the recent years.

A1.2. Why: the causes of piracy in specific areas

There are many questions about the causes of this situation: why are pirates taking the risk, why now, why Somalia, Nigeria, Indonesia or Malaysia... Why this particular type of plunder at sea has revived in recent years?

Thanks to political and social development and the subsequent establishment of sea control, piracy had been moved since mid nineteenth century from the sea to the history books or novels. Seas could be sailed with confidence and safety.

Nevertheless, an alarming increase of violence against ships has been noted in recent years. According to article 101 of the UNCLOS, those violent acts can

be qualified as piracy. In addition; other violent acts committed in ports and harbors under the State's jurisdictions have also shown significant increases.

In a world where is assumed that the main cause of criminality is poverty, and naturalization of violence is a demonstrated fact in societies that have suffered from war and misery, the analysis of the causes must be developed not only by geographical area but also by each of the particular factors in order to get the cause properly isolated.

A1.2.1. Humanitarian disasters

Countries involved in areas related to piracy and smuggling have frequently been hit by the violence of their own internal conflicts and often suffer from extreme violence and poverty.

In Somalia, without a formal coast guard, civil war started in 1991 and the State was divided into clans with no common hierarchy depending on the region (Fig. 7). Socially, there are no enough schools or hospitals, only 13% of the population is literate, 25% of the population lives outside the country, either for economic reasons and political, and life expectancy is 47 years.

Fig 7. Piracy coasts situation in Somalia in 2010[11].
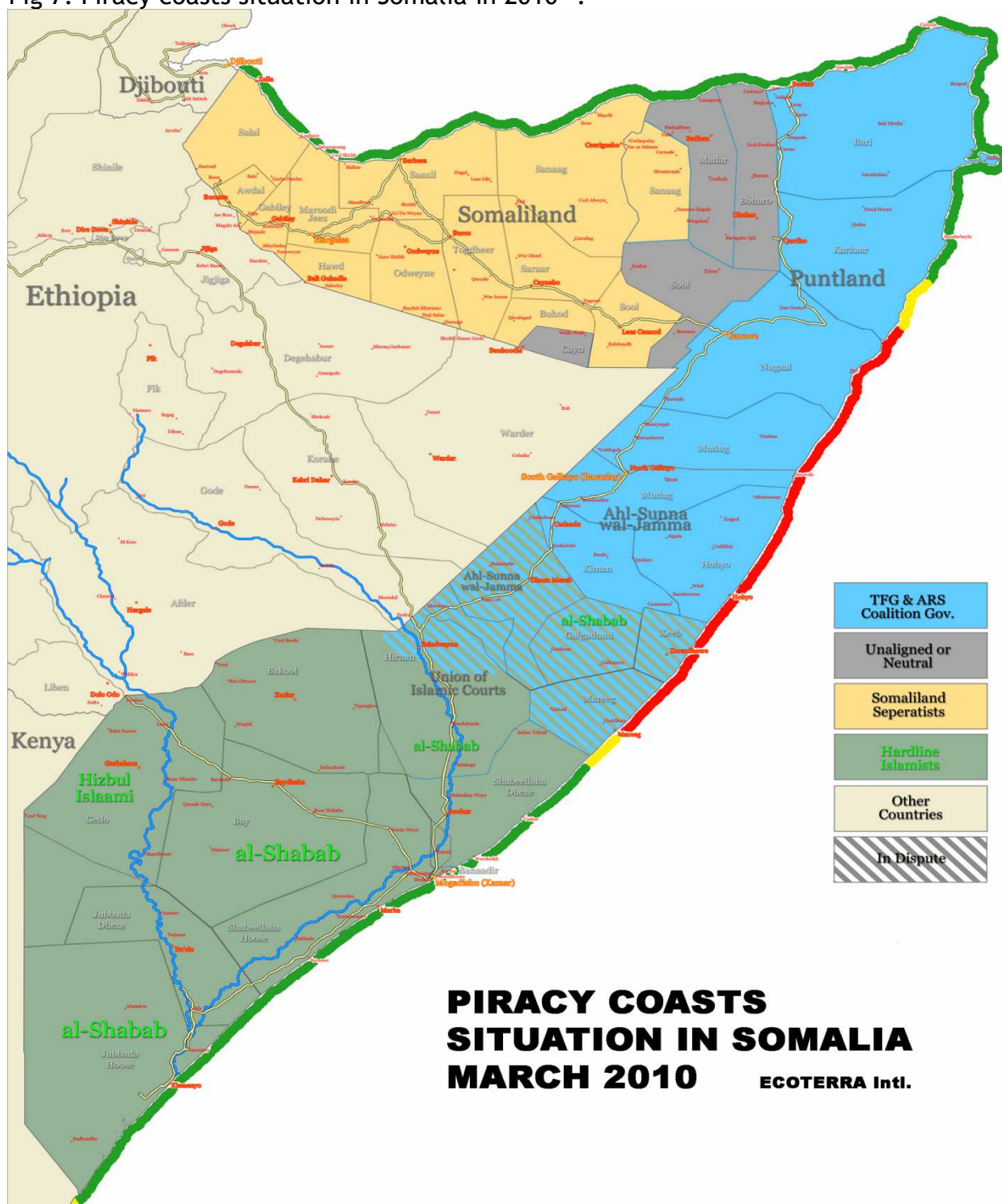
[11] From Ecoterra Intl. [on line]: Avalaible at <http://www.ecoterra.net/>

In Malaysia and Indonesia the last humanitarian catastrophe they suffered was the giant tsunami of 2004 that devastated many of the islands of Southeast Asia. Related to this important humanitarian disaster and favoured by the large international aid presence deployed throughout the area, piracy has developed in the area since 2005. No pirate attacks were previously identified in the area.

Complementarity to poverty, the main factor that shows the humanitarian failure is social inequality. As an example, in the area of Nigeria, despite of having a sustainable economy thanks to the extraction of fossil fuels, population growth has recently overemphasized class differences and the majority of the population lives now on less than one euro a day. This situation can act as a strong driver in most of the societies.

Finally, the development of terrorist activities needs to be added to this picture. The relevance of this factor lies on the fact that the economical reasons can also be substituted or complemented by political or ideological drivers.

A1.2.2. Technological factors

The worldwide development of technology has facilitated the return of piracy and specially the development of a more sophisticated forms of establishing the targets and performing the attacks.

Technology has also encouraged pirates as today's merchant crews are composed of fewer people than in the past making them more vulnerable to any attack.

Finally, nowadays traffic intelligence is easily available, specially via Internet also from shores of the risk areas. In high risk areas of Somalia, for example, mobile telephony services, GPS and Internet connections are well developed and properly functioning.

Finally, technological development has promoted a significant increase in navigation, which ultimately means a higher number of targets for the pirates. In addition, due to economic reasons and with the exception of certain special trade, the service speed of merchant ships has been reduced compared to that one in the last 60s and 70s facilitating any manoeuvre from a possible attacker.

Obviously, technological development has not only favoured piracy, but also the possibility of detecting and controlling it, and developing tools for international cooperation between the political involved countries to fight piracy.

1.2.3. Overfishing and pollution

Maritime skills of the pirates come from a long fishing tradition that makes them familiar with the sea. The depletion of territorial seas leads directly to the subtraction of one of their main sources of sustenance and increases the likelihood of piracy development.

In one hand, thousands of Somalis once made their living as fishermen. But Somalia has been without a central government for nearly two decades and no active body has effectively protected the country's rights on its coastline and the once-abundant supply of fish it held.

Now, it is estimated that more than 200 million euros worth of tuna, shrimp, and lobster are fished stolen every year by illegal trawlers. Due to the fisheries exploitation off Somalia's coast by foreigners and the lack of a governing body to stave them off, many of the Somali fishermen are finding their nets empty. Without the ability to bring home even a sufficient amount of fish to eat, many of these fishermen justifiably grow desperate. Even if from here it is not a simple jump to pirating, it can be a factor to be considered as far as it is also linked to poverty.

Apart from a potential link to fishermen, it is noted that many of the now so-called "pirates" were previously vigilance patrol squads used to steer their boats to the fishing vessels they found snagging seafood illegally or dumping

toxic waste in Somali waters and requesting them to pay a tax. After this proved to be ineffective, something closer to organized piracy has developed.

On the other hand, dumping toxic waste products into the sea, including radioactive waste, constitutes another motivation for some piracy activities in the Gulf of Aden. There are many Eco-activists who raised the alarm. One of them is Ahmedou Ould-Abdallah[12] who said *"Somebody is dumping nuclear material here [Somalia]. There are also lead, and heavy metals such as cadmium and mercury."* According to him, as soon as the Somali government was gone, mysterious European ships started appearing off the coast of Somalia, dumping vast barrels into the ocean. Subsequently, the coastal population began to get sick. Firstly they suffered from strange rashes, nausea and malformed babies.

In 1997, the European Green Party[13] presented to the European Parliament and the media copies of contracts signed by two European companies and representatives of the then President Ali Mahdi Mohamed. The contracts

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12   **Ahmedou Ould-Abdallah** has been Special Representative for the UN Secretary-General for Somalia. Under this position he has mediated peace talks between the Transitional Federal Government of Somalia and the UIC (Union of Islamic Courts) and the ARS (Alliance for the Reliberation of Somalia) based in Asmara, Eritrea. He also was present at the peace talks in Djibouti and worked intensively for lasting peace in Somalia.

13   **Green party** or **ecologist party** is a formally organized political party based on the principles of Green politics, which is founded in many countries. These principles include social justice (especially aborigines' rights), reliance on grassroots democracy, nonviolence, and an emphasis on environmentalism.

allowed the companies to dump in Southern Somalia 10 million tonnes of toxic waste in exchange for 60 million euros.

Another example can be found at the Italian newspaper *Famiglia Cristiana*. It first broke the story and wrote a series of articles exposing in detail illegal dumping activities by a Swiss firm, Achair Partners, and an Italian waste broker, Progresso. The reported deal fixed a rate of less than 7,5 euros per tonne, while at that time the cost for disposal and treatment of toxic waste material in Europe could go up to 750 euros per tonne.

After, the tsunami hit the coast of Somalia in 2004 and destroyed coastal towns and villages and revealed even more the *secret* that some must have hoped would remain forever buried at sea: toxic dumping. Besides the waste, Somalia's coast has also been receiving shiploads of industrial, hospital, chemical, leather treatment and other. Then, hundreds of the dumped and leaking barrels washed up on shore. People began to suffer from radiation sickness, and more than 300 died.

Much of it can be traced back to European hospitals and factories, which seem to be passing it on to the Italian mafia to "dispose" of cheaply.

Since that, dumpers seem to be searching for other parts of Africa. They are reportedly conducting their illegal business with war torn and corrupted governments in the continent in countries such as Ivory Coast, Nigeria, Mozambique and many others. Although, there is not conclusive eyewitness

report yet, there are rumours of Asian companies carrying on similar activities under the name of fishing agreements.

In 2007, Ivory Coast became latest victim when the port of Abidjan received te shipment of a highly toxic waste, which floated through international through a Dutch multinational company, Trafigura boarding a Panamanian-flagged ship. It was the residual product from an offshore cleaning of fuel oil tainted with too much sulphur. Fifteen people died, more than 100 were seriously ill and several thousand more suffer from lingering effects on their health, their livelihoods and their personal environments. Trafigura has just settled a 150 million euros lawsuit with the government of Ivory Coast, while a class-action suit is making steady and slow progress through the British legal system.

Despite all these facts, there are also many objectors to challenge these theories. Their reasons for being against are:

- Lack of conclusive evidence.

- Symptoms of the disease may have been caused by other causes. For example, pirates were holding hostage a tanker full of phosphoric acid. Concentrated phosphoric acid will definitely cause severe burns, yet diluted it is safely added to soft drinks. It isn't a toxic waste and no-one was going to dump it, in fact it is fairly valuable.

- The Italian researcher Ilaria Alpi[14] concluded that waste has not been illegally dumped by European companies but by the Somali leaders themselves.

- Would that had been the real motivation of the pirates, they would not had chosen indiscriminately their victims.

It is clear that this factors help to explain the piracy's causes even if obviously none of them can be used to justify the crimes committed in acts of piracy, armed violence and kidnapping of the sea workers. The practical conclusion of this chapter could be summarized by the words from Fernando del Pozo[15], one of the directors of the NATO-EU military project: "...*piracy is a global problem and the causes that promote it in Somalia also exist equally or similarly in other parts of the globe. The experience gained in Somalia is likely to be applied in the future in any other vulnerable place*"

Why Somalia don't condemn its pirates?

What would be an easy question to answer in other parts of the world, this is not the case in Somalia or elsewhere, where there is a movement of sympathy towards its regional delinquency.

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14   **Ilaria Alpi** was killed in 1994 when she was sent to Mogadishu to follow the civil war in Somalia, and to investigate arms trafficking and illegal toxic waste, in which probably the same Alpi had discovered that they were involved the army and other Italian institutions.

15   Operational aspects of the fight against piracy in Somalia, Fernando del Pozo, 2009 Real Instituto Elcano.

They know that the primary motivation for looting and banditry is money, but they also feel strongly that the world owes them something, and somehow they get the idea that this is being charged with the rates.

Hence, they are directly realising that piracy strengthens its economy and protects them from foreigners in a practical way where their political bodies had failed and their seafood is being robbed and toxic waste dumped. Even more, being a pirate is a well accepted social category in Puntland!. In a survey made in April 2009, the independent Somali news site *WardheerNews* found that 70% of the interviewed people "strongly supported the piracy as a form of national defence".

Although this can be perceived as the popular feeling, it should be noted that the diplomatic and political representation in the concerned areas do not support this type of crime.

1.3. Who: the pirate's profile

Name: The Pirate[16]

Gender: Male

Age: 12 to 30 (sometimes hard to know even for themselves)

Languages:

> In Southeast Asia: Malaysian, Indonesian, Dutch, Chinese, English and local languages like Javanese and Sondanese.
>
> In Nigeria: More than 500 languages, but English is the official one. Yoruba, Hausa and Ibo are recognized as regional languages. Others are: Tiv, Hwan...
>
> Gulf of Aden: Somali, Arabic, Kiswahili and English.

Languages play an important role, since, especially in Malaysia and Somalia, very few people speak English (because it is not a official language), which makes it harder the whole process of patrols, inspections and legal proceedings.

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[16] Image from Vista al Mar [on line]. Available at <http://www.vistaalmar.es>

Skills and competences:

Great survival instinct.

Expert level orientation, astronomy, and navigation with a magnetic compass.

Knowledge about weapons: AK-47s, RPGs, grenades.

Means of transport: small boats towed fishing boat at sea (Fig. 8), whatever on earth.

Boats used by pirates are small, possibly of wood or GRP construction, and therefore poor radar targets.

Fig 8. Small pirates' boats[17]

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[17] Image from Vista al Mar [on line]. Available at <http://www.vistaalmar.es>

In each boat there are often: a flight of about 4 meters (enough to access most of freeboard) and a lot of fuel (Fig. 9) to feed their powerful outboard motors (Fig. 10), as well as weapons and ammunition.

- Availability: Permanent, with the possibility of spending months at sea waiting for a good chance.

Additional characteristics: no fear, no tendency to blood crimes...

Fig 9. Huge quantities of fuel on board[18]

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[18] Image from Vista al Mar [on line]. Available at <http://www.vistaalmar.es>

Fig 10. Powerful outboard motors[19]

1.4. How: Modus Operandi

The pirates, like most persistent criminals, tend to repeat certain patterns in the time they committ their crimes. These systematic patterns define their *modus operandi* (MO)

While the number of piracy attacks is increasing, particularly around the Gulf of Aden and the waters off the Somalian coast, the types of attack are also changing. The latest reports show that the pirates are more likely to carry

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[19] Image from Vista al Mar [on line]. Available at <http://www.vistaalmar.es>

automatic weapons and grenades as well as knives and machetes, and that crews are more likely to be held hostage.

Furthermore, all boats are liable to be attacked – from yachts to tankers – but bulk carriers and tankers are the most common targets. Research also shows that, pirates are largely uninterested in the ship's cargo – holding the vessel for ransom is enough for them. The average crew of the ships attacked is of between 15 and 25 people. Considering the ship's flags, Panama, Greece and USA have been slightly more attacked in 2009 (perhaps just by chance).

In Nigeria, the trawler is the most assaulted type of boat. It is estimated that there is a conflict almost every day. In this maze of channels that is Lagos, trawlers are often attacked when the nets are thrown, so its speed is only about 2.5 kn becoming an easy target.

Basically, their preferences are the result of their experience on when and how it is easier to attack. The general plan of attack occurs in a twilight time slot, so generally pirates attack at first light, particularly after nights with no moon and in benign weather conditions. Pirates operate from very small craft, which limits their operations to moderate weather conditions. While no statistics exist, it is likely to be difficult to operate these small craft in sea states 3 and above.

Beside, the study of cases of 2009 reveals that there are periods in the year in which pirates are more active, depending on local weather conditions. Before

the monsoon, it increases the number of attacks due to the difficulties for navigation on that period.

The risk of a piracy attack appears to increase immediately following the release of a hijacked vessel and/or following a period of poor weather.

Then, they use to get closer of his goal in one of the boats previously described, they come by the tacks or the quarters and in a few meters they start to describe circles while shooting to the hull vessel in order to warn about their presence until they are allowed to reach the freeboard. Pirates will probably try to board at the lowest point above the waterline, usually on either quarter. Recent trends suggest that vessels with a minimum freeboard greater than 8 metres have a much greater chance of successfully escaping a piracy attempt than those with less freeboard.

After boarding the vessel, pirates then sail the hijacked ship to a Somali pirate hub town, like Eyl. Once they are there, pirates usually take the hostages ashore where they are normally well-looked after until a ransom is paid.Its radius of attack is very variable, being more dangerous the closer areas to the coast. In the case of Somalia, the area known as high risk by OCIMF[20] is shown at next Figure 11:

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20   **Oil Companies International Marine Forum (OCIMF)** is a voluntary association of oil companies having an interest in the shipment and terminalling of crude oil and oil products. OCIMF is organised to represent its membership before, and consult with, the International

However, it is important to note that during 2009 attacks also occurred outside this sensitive area.

Fig. 11. Piracy Attacks' Sensitive Area. Gulf of Aden[21].

Maritime Organization (IMO) and other government bodies on matters relating to the shipment and terminalling of crude oil and oil products, including marine pollution and safety.

[21]Image from The Law of Offices [on line]. Available at: <http://www.cargolaw.com/>

1.5. What they want: the ransom

It is interesting to address this question considering a practical situation, as for example the recently issued case where the hijacking of the Bunga Melati Dua was judged at High Court London in 2008. One of the issues was whether the payment of a ransom was contrary to public policy as a matter of English law. It is worth highlighting the words of Mr Justice Steele[22], where he made it clear that he did not think it right to categorize the payment as contrary to public policy:

"So far as harm is concerned it is truth that payments of ransom encourage a repetition, the more so if there is insurance cover: the history of Somali piracy is an eloquent demonstration of that. But if the crews of the vessels are to be taken out of harms way, the only option is to pay the ransom. Diplomatic or military intervention cannot usually be relied upon and failure to pay may put in jeopardy other crews."

So this is the real situation, but obviously not the best. The ransom is one of the main motivations for the pirates and their acts, so itself only contributes to the war and worse things. In spite of legal constraints are not well defined and that it is established in Somalia an arms embargo since 1992 by the

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22   Paragraph 60 (iii) in his judgment.

Security Council through resolution S/Res/733, it is clear that much of the amount of these bailouts goes directly to arms trafficking.

1.5.1. Legal considerations

Fundamentally it cannot be in anyone's interest to criminalize the victims of a hijacking. But Laws have to attempt to ban ransom payments and indeed freezing assets of families involved have been introduced elsewhere, notably Colombia and Italy, although these too have generated debate. In Colombia these laws were subsequently subject to a Court ruling that allows ransoms where humanitarian factors demand them.

Furthermore, these bans were accompanied by the outlawing of kidnap and ransom insurance, which is now a well-established insurance product in the Lloyds market.

Furthermore, this legislation would be specific to shipping and does not address extortion in the wider sense. The issue is further complicated by the fact that in the US the act of *hostage taking* of a US national overseas is regarded as terrorism under the Patriot Act and knowingly paying money to those involved in terrorism is a criminal act.

It is therefore difficult to see how the US could take unilateral action against a shipowner without also condemning various insurance companies specialized in this area. Even if such a move was possible, it is, of course, made more

complicated in shipping in the sense that losses incurred by piracy are a legitimate insured peril and payable under ordinary hull and/or war policies (depending where the risk falls). This then is the real crux of this problem: who pays the ransom and how will the Regulations affect them?

The shipowner may take the lead in any negotiations but ultimately would look to his usual insurer (in the absence of a dedicated kidnap and ransom policy) to pay ship's proportion of the ransom, either as a sue and labour expense or in General Average. If the latter (i.e. when the vessel is laden) then cargo interests (and more likely their insurers) will pay cargo's proportion. Crew, of course, do not contribute to the ransom despite the fact that the threats are essentially made against them. There are also circumstances (although rare) where the time charterer agrees to bear the cost of a ransom and takes out applicable insurance on the basis that they are bearing the risk of time.

Where Time Charters were entered into before the global economic downturn, some of the exposures to losses over a three to four month hijacking were considerable. They can be in excess not only of the final ransom payment, but also of the original, higher demand.

It is difficult to see how the Regulations could be formulated. Putting that aside, there is also the very real difficulty of a ship-owner knowing exactly to whom he is paying a ransom and whether this person is a nominated individual

as per UN guidelines. A ship-owner will have done well if during the course of a negotiation he is able to determine which Somalian clan and subclan he is dealing with, apart from identifying the individual with whom he is dealing.

Penalizing the ship-owner, who is just one stakeholder in a maritime venture, would appear not to be the most sensible way to deal with the continued burden of piracy and ransom demands. The reward side of the equation for pirates continues to rise and although the coalition of naval forces appear to have adopted a more aggressive approach to the issue, it appears no commensurate increase in risk to a pirate of being arrested and taken for prosecution. If national governments want to introduce new policy perhaps that is a better place to start with.

The fact is that there is no agreed international legal system for arresting and detaining people accused of piracy, not even among allied countries such as the NATO states.

Countries can only prosecute pirates arrested in their own jurisdictions. On the top of that, there are very few modern piracy laws in place. A few countries have tried to take matters into their own hands, putting pirates on trial, such as in Kenya or France. On the other hand, the British Foreign Office has advised its navy not to capture pirates from certain countries, because they may even be able to claim asylum in Britain as *refugees* from war zones.

Thence, sometimes it seems that pirates have nothing to lose when they ask for ransom. Moreover, surprisingly as it would seem, if one of them is caught, he pleads guilty and dismissed his civil right to counsel. The reasons, again, is rooted in the need rather than maybe in a desire of a particular live style.

1.5.2. Ransom operation

Pirates often get away with the ransom. Do not underestimate their organization's capacity. Here it is a description step by step on how it is a classic case of how they get away with money:

1) The hijacked ship is anchored more or less two miles away from the coast. A small plane throws the burden of money in euros or dollars. Sometimes it used to be fake money, so, especially after 2008, in almost all cases pirates had the equipment necessary to validate the bills.

   Other options to deliver ransoms include delivery by parachute or by tug, although any method can be used. A few firms have delivered a ransom by the unofficial Hawala system[23].

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23   **Hawala or Huwala** (also known as **hundi**) is an informal value transfer system based on the performance and honour of a huge network of money brokers, which are primarily located in the Middle East, North Africa, the Horn of Africa, and South Asia.

2) Pirates collect the loot and get on the hijacked vessel. Right there, the distribution of the money among the responsible ones takes place. This operation usually lasts 4-8 hours.

3) Pirates are organized into subgroups and begin to flee the coast. When finally the last drop gets out of the hijacked vessel, there is a safe distance imposed by the pirates during negotiations (approximately 15 nautical miles) for the military frigates, which have been watching the entire process helplessly, and speedboats and helicopters are sent.

   It should be noted that it is important to include all the stakeholders in the process to avoid conflict during the negotiations to release a vessel. During this phase, issues may arise over cargo and its safety, so it is essential that cargo interests remain fully briefed on the situation.

   Pirates understand how to increase pressure at this stage of the process. In one case, the pirates deliberately opened the hatches of a bulk coal cargo, inviting overheating of the cargo to put pressure on owners during negotiations.

4) Many of the speedboats and one helicopter are released to support the free vessel and prevent it from being abducted again, while the rest are chasing the last pirates. Unfortunately, crowds are throng the shore watching the spectacle, so that pirates are quickly lost among people and most of them get to escape.

When everything is over, the final ransom distribution (Fig. 12) benefits all the parts involved during the whole process according to many journalists and anonymous victims. It seems to be a secret that everybody knows, but still undercovered with no conclusive evidences.

Fig. 12: *Estimated Ransom Distribution.*[24]

[24] From Blog Tactic [on line]. Available at: <http://www.blogtactic.com/2009/04/how-somalias-fishermen-make-money-from.html>

A2. Risk and cost assessment of preventive and contention measures

Risk and cost assessment needs to be done to quantify the benefits and costs of the different measures in order to efficiently minimise the risk level with advantage.

For this, it is highly recommended to captains, masters, chiefs and owners to have a full report about risk assessment elaborated with the last data available in order to understand the dynamics of a hijacking, which will allow the crew to fine tune response plans and ensure swift and decisive responses. It is crucial that should a capturing occur, these plans must be directly and immediately deployed.

A proper risk assessment should identify the most effective measures to be taken for prevention, easing, improvement and will mean blending statutory policies with additional measures to combat the crimes.

The cost assessment will allow to qualify the different identified measures in accordance to their cost enabling the decision making process. This assessment is particularly important as many of those measures can impose significant and painful costs.

Therefore, it is necessary a previous analysis to complete a general risk and cost assessment that allows for an effective and efficient plan.

A2.1. Safety and environmental costs

More than a thousand crew members have been taken hostage so far, sixty-eight wounded and eight dead. The levels of violence against the crew have grown along with the number of wounded.

When a ship is boarded by unnoticed pirates/armed robbers their orders should be complied. If no form of transmission informing shore authorities of the attack is possible, it might be because pirates may carry equipment capable of detecting all radio signals, including satellite communications, and complying with the provisions of the paragraph above may result in physical violence/death to the crew.

Pirates are ready to do their job. So, the crew has to be ready too.

The protection of the human lives will be a key issue. First, it must be guaranteed control of the security measures for prevention boarding and access to the exterior superstructure. And in the same way to ensure that the crew cannot be trapped in case of another type of emergency, such as a fire, and that emergency exits and access to boats is available at any time and checked in a previous maintenance inspection, including the rest of the

survival equipment and alarms by following all the minimum requisites specified in SOLAS.

Nevertheless, there remain risks. Not only for the crew, but for the pirates also. Do not forget that they are being constant danger too. That is why the protocols of action to a kidnapping must be cautious and try to avoid situations in crossfire or risky manoeuvres in bad conditions.

True Facts:

- Sirius Star: The tanker appeared in the international news after his capture by Somali pirates on 15/11/2008 in order to get a rescue. It is the largest vessel seized to date. The ship covered a regular route between Saudi Arabia and the United States along the Cape of Good Hope. At the time of collision, it was 450 nautical miles southeast of Kenya with 25 men on board and laden with oil. On 09/01/2009 the tanker was freed by pirates after they make the payment of ransom, estimated at 3 million dollars. However, six of the men guarding the Sirius died when his boat overturned while trying to reach land with part of the booty, and their bodies were found on the beach with their pockets full of notes that a plane (with the ransom?) had dropped on the tanker. Most of the money, in spite of this, had been paid in land.

- Le Tanit: The French flagged yacht, was boarded by fourteen pirates on 04/04/2009 at the entrance of the Gulf of Aden, off the coast of

Somalia, taking hostage a couple, their 3-year-old child, and two friends of the family who joined them in Aden. The French forces stormed the yacht on 10/04/2009 while negotiations failed. One hostage, Florent Leman was killed, and the four other set free, including the child. Two pirates were killed and three others captured.

It is very difficult to estimate the humanitarian cost of piracy and even the impact on human lives of the anti-piracy operations. As an example, the intimidation caused by military operations, such as the Atalanta operation. Due to the significant increase of the vigilance and patrols, many of the criminals engaged in smuggling of migrants have started to launch over the boat to these people into the sea due to the fear of being caught.

From another perspective, human costs in form of psychological impact could be considered. For example, soldiers performing guards (in non-routine mood as they respond to unforeseen emergency calls) are in maximum stress and danger several times a day. They can develop a syndrome similar to being in a war, with consequent psychological strain. This stress is added to the fact of being away from home and isolated in a hostile environment. As a consequence, they often increase their use of toxics and suffer from psychosomatic diseases, which are experienced as psychological problems. Increased kidnappings does cause, ultimately, a deep sense of frustration and depression in the Marines.

The experienced gained in overcoming wars and individual traumas has facilitated the categorisation of these diseases suffered by these marines, mainly as "post traumatic stress disorder". This fact has not always helped the sea workers, whose conditions are somehow rather specific.

Therefore, appropriate measures should cover two big areas: first, if an incident happens, offering professional counselling to those who may have been affected and consider a careful mechanism for informing those next to hm. Secondly, thorough preparation and awareness raising of the possible situations that may occur when entering an area of high risk.

At the environmental level, there are several cases that could be noted to infer conclusions.

Lake Victoria is the second largest fresh water lake in the world and it is well known by its flora and fauna. Its fishing industry earns more than 465 million Euros annually. In addition it is an important source of water supply. Despite the efforts to save the lake made by Kenya, Uganda and Tanzania and their development partners, including the World Bank, insecurity, piracy, illegal fishing methods and cross-border conflicts have continued to affect fishermen in Kenya, Uganda and Tanzania, who claim that they are losing everything to armed gangs roaming the lake.

Similarly, in the Niger Delta area, the flora and fauna have been affected by acts of piracy, especially for those made by MEND. The fishermen are 15-20

miles away from the coast to fish, which is really dangerous. Furthermore terrorists have also destroyed several oil pipelines leading to oil spills that have contaminated hundreds of miles of coastline and unable fishing in these waters.

Any act of piracy and armed robbery can impact on human life, the safety of navigation and the environment. Piracy is a criminal act, which not only affects the victims but also has severe financial repercussions.

A2.2. Economical costs

Firstly, the game is about what is cheaper. The main rule is to consider money and time which are linked to another kind of factors like distance or the fuel consumption. When one of those is incremented the others follow it, becoming more expensive. So, the objective is to find the equilibrium between them, avoiding the extra expenses which could destabilize the prevision.

Usually, less time means more benefit and it is also important to consider that it means to be less accessible too, that is the main reason because full sea speed it is recommended in the high risked areas.

However, boats at full ahead consume more fuel and power, then causing wear over all the infrastructure resulting in more costs. At about half speed, fuel consumption drops to 70% of fuel a day from the total. In order to calculate

this relation, the equation[25] below shows how fuel consumption of a ship changes relative to the change in the speed raised to the power of *a*. The equation is valid near design speed with the value of *a=3*. Similarly, a decrease in speed leads to a decrease in fuel consumption.

F = fuel consumption (t/day)

F* = fuel consumption at design speed

S* = design speed

S = actual speed

a = constant value of circa 3

$$F = F^{*} \times \left(\frac{S}{S^{*}} \right)^{a}$$

Another factor that defines the average of cost is the distance, because the longer the journey, the more are multiplied the days of consumption.

Anyway, merchant shipping firms are taking additional steps to protect vessels and crews. Many slower vessels with lower freeboard, such as heavily laden tankers, are avoiding the area altogether, choosing instead to make the longer trip around the Cape of Good Hope. After the supertanker Sirius Star was

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[25] From Lipast: Traffic Emissions. (Methodology for unit emissions of ships) [on line]: April 2009. Available at:
<http://lipasto.vtt.fi/yksikkopaastot/tavaraliikennee/vesiliikennee/maaritysperusteet_tavara_vesie.htm>

seized, Denmark's A.P. Moller-Maersk decided to divert some of its 50 oil tankers around the cape instead of using the more convenient route through the Suez Canal in order to steer clear of the Gulf of Aden. Norway's Frontline, which carries much of the oil from the Middle East to world markets, is considering doing the same, and the additional cost amounts to 1 million euros (between 1-3 weeks more) per transit. Diverting vessels around South Africa may not make them safer, and the trip increases both the cost of shipping and the time of transit, driving up the price of manufactured goods and commodities. The global shipping industry is especially vulnerable now, dealing with the attacks at the same time that it faces volatile fuel costs, plummeting freight rates, container ship surpluses and increased insurance premiums for transits through the pirate-infested western Indian Ocean.

Finally, it is recommended to take into account other expenses such as port taxes (and others) depending on the route chosen, to pay a ransom if the ship is captured or the contract of armed guards, for example.

A2.2.1. Insurance policies

Piracy has favoured that many companies move their ships to the seas of South Africa, instead of transiting the Suez Canal, and have boosted the price of insurance policies ten times at unprecedented levels.

Large ships generally carry three separate types of insurance. Marine (or hull) insurance covers physical risks, like grounding or damage from heavy seas.

War risk insurance covers acts of terrorism, and, increasingly, piracy. The third type of policy, protection and indemnity, covers crew issues.

The war risk policy should include a clause that require extra insurance charges for ships that venture into high risk areas like the Gulf of Aden, as stated by Peter Townsend, head of marine hull insurance at London brokers Aon:

"Insurances would still cover a vessel which visited those parts of the world, but they'd charge an additional premium."

Ship owners can purchase separate kidnap and ransom insurance for their crew, Flood said. And delays to cargo could be covered under a separate insurance policy.

It is vital that owners are fully aware of the terms and conditions of their insurance coverage and Charter Parties, to avoid complications should a hijacking occur.

The Joint War Committee consists of London-based insurance underwriters who meet every quarter to exchange information on war risk, focusing at the moment especially on piracy. Their conclusion is that the growing risk of piracy is likely to increase insurance premiums, as well the cost of shipping. Premium increases are only one possible reaction to piracy, but each insurer will approach this issue differently.

Dr. Sven Gerhard, global head of hull insurance at Allianz Global Corporate Specialty, says:

"Hull and machinery policies are not flexible enough to deal with piracy risk and it should therefore be moved to war insurance policies."

The transition to war risk coverage of piracy risks could be helpful for insurers and policyholders alike because it would clarify ambiguity about how piracy is covered.

Currently, shippers that do not have separate kidnap and ransom insurance may have piracy ransom covered by General Averages a voluntary agreement by the owner, charterers, insurers and other interests to pay a proportionate share of a vessel's expenses. However, general average is very difficult to apply and is not specifically designed to address ransom threats.

In order to handle any gap in coverage this may lead to, in the London market which underwrites most marine risk policies in about 80% of cases, piracy is being transferred from the hull to the war policy. Discussions are also going on about the adaptation of kidnap and ransom insurance to this modern situation. Ultimately, if a risk exists, it needs to appear in the pricing or wording of insurance. Just calling a risk rare does not mean it will not happen. For this reason, heightened awareness of the problem needs to be coupled with the right risk solutions.

The map[26] below shows the two options for maritime trade since the pacific to the North Atlantic. Since an economic point of view, Suez Canal is expensive and fuel is cheaper at the rest of Africa's coasts. So, even the distance is bigger it could be a good option.

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[26] Modified from <http://lahistoriaconmapas.blogspot.com/2011/03/consecuencias-de-la-pirateria-en.html>

B. PIRACY FIGHTING

B1. Practical Measures to be taken Against Piracy

There are several practical measures that can be implemented to prevent or to content a pirate's attack. This kind of measures are of a different naturae and can be taken at different stages of the process of attack:

- To start with, careful preparations of the ship may dissuade pirates from planning an attack if their closer inspection of the potential target reveals a number of protection measures.

- Later, experience suggests that the sudden appearance of Naval Forces by air or sea before pirates have gained control of a vessel usually persuades them to abandon the attack. Therefore, delaying the pirates at any stage of an attack buys additional time and often can greatly increase the chance of Naval Force intervention.

- If pirates do manage to board the vessel, preparations on board can still delay or prevent them taking control and hijacking the vessel.

A cornerstone of any response to a pirates' attack will be the Ship Security Plan (SSP), as required by the ISPS Code, and its effective implementation.

Patterns described below are intended to supplement the ISPS and not replace to it. It is therefore important that, before entering a High Risk Area, the

ship's crew had practiced and master the procedures set out in the SSP, taking into also account the guidance given in Part B of the ISPS Code.

The use of private security firms for additional security and/or on board training is solely at the company's discretion, and later will be analyzed their advantages and disadvantages.[27]

B1.1. General prevention recommendations

- Watch-keeping and enhanced vigilance: Prior to commencing transit in a High Risk Area, it is recommended that preparations are made to support the requirement of increased vigilance. Additional lookouts for each watch, a sufficient number of binoculars for an enhanced bridge team, and night vision optics, if possible, should be ensured. . Here, the chapter 5 of the COLREG is especially important. Other imaginative resources could also be considered, like well constructed dummies placed at strategic locations around the vessel which can give an impression of greater numbers of people on watch.

- Constant radio watch maintained on all distress and safety frequencies particularly VHF Channel 16 and Maritime safety broadcasts for the area monitored, backed up by VHF Channel 8, which is monitored by Naval vessels.

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27 See chapter B2: Piracy fighting systems.

- Avoid the use of ship's tools and equipment by pirates: Pirates generally board vessels with little equipment other than personal weaponry. It is important to try to avoid that pirates get access to use the ship's tools or equipment that may grant them the entrance into the superstructure of the vessel. Tools and equipment that may be of use to the pirates should be stored in a secure location.

- Protection of equipment stored on the upper deck: Small arms and other weaponry are often directed at the vessel, and are particularly concentrated on the bridge, accommodation section and poop deck.

  Consideration should be given to providing protection, in the form of sandbags or Kevlar blankets, to gas bottles or containers of flammable liquids that must be stored in these locations.

  Ensure that any excess gas bottles or flammable materials are landed prior to a transit.

- Control of access to accommodation and machinery spaces: It is very important to control access routes to deter or delay pirates who have managed to board a vessel and are trying to enter accommodation or machinery spaces. All doors and hatches providing access to the accommodation and machinery spaces should be secured to prevent them being opened by pirates gaining access to the upper deck of the vessel.

- Careful consideration should be also given to the means of securing doors and hatches. It is recommended that once doors and hatcheshave been secured, a designated and limited number of them are used for access when required.

  Where the door or hatch is on an escape route from a manned compartment, it is essential that it can be easily opened by a seafarer trying to exit throughthat route. Where the door or hatch is locked, it is essential that a key is available, in a clear position, by the door or hatch.

  Where doors and hatches are watertight, it has to be ensured that all clips are fully dogged down in addition to any locks.

- Piracy Attack Crew Muster Point: It is recommended that a Piracy Attack Crew Muster Point is designated for use in the event of a piracy attack. The location of the muster point should be chosen to provide maximum physical protection to the crew. It is likely to be low and central in the accommodation section. It is recommended that the muster point is provided with: food and water toilet facilities, 2 independent means of communication with the bridge, fire fighting equipment, first aid equipment, portable lighting, CCTV monitor and a list of ship's crew, among others.

Procedures should be in place for mustering the crew and for ensuring that all are accounted for at their designated positions. These are likely to be the Piracy Attack Crew Muster Point, the Bridge and the Machinery Control Room.

- Communications: List of contacts, prepared messages and communications policy should be available to all designated officers who may need to use them and also posted in the wheelhouse.

Minimise external communications (radios, handsets and AIS information) to essential safety and security-related communication and SOLAS information only to crew working outside secure areas on an exceptional basis and in constant communication with the bridge.

There are differing views on whether the AIS should be switched on or off during the time that the ship is in the High Risk Area. SOLAS requires that ships fitted with AIS maintain it in operation at all times except where international agreements, rules or standards provide for the protection of navigational information. If the AIS is switched off it is very difficult for the Naval Forces to identify, track and monitor merchant vessels transiting.

As it is currently considered unlikely that pirates have the ability to monitor AIS transmissions, it is recommended that the AIS is left on, but that the amount of information is restricted to ship's identity, type,

position, course, speed, navigational status and other safety-related information which may be of use to the Naval Forces in the event of an attack. However, it is recognized that the Master may exercise his discretion and switch off the AIS.

- A final check should be carried out to verify that all the defense and security measures described are in place and fully operational. Any equipment that may be required at short notice, for example fire pumps, should be tested and left ready for use.

- It is recommended that the transit through a High Risk Area is conducted at Full Sea Speed.

- It is further recommended that vessels review the status of their machinery and consider operating two steering motors and two generators when sailing in a High Risk Area.

B1.2. Pirate's boat identified

If the preparation and precautionary measures have been effective, a possible attack could be detected early enough. At this time, the Master should

activate the ship's security alarm system and alert the following organizations[28]:

- United Kingdom Maritime Trade Operations (UKMTO)

- Maritime Security Centre – Horn of Africa (MSC – HOA)

- Combined Joint Task Force – Horn of Africa (CJTF- HOA)

- Maritime Liaison Office – Bahrain (Marlo – Bahrain)

- IMB Piracy Reporting Centre

The Master should also consider whether a distress message should be broadcast following the Standard ship's message formats, which is:

1. Ship's name and call sign, IMO number, Inmarsat IDs (plus ocean region code) and MMSI

- MAYDAY/DISTRESS ALERT

It is expected that this message will be a Distress Message because the ship or persons will be in grave or imminent danger when under attack.If this is not the case, the word MAYDAY/DISTRESS ALERT is to be omitted.

Use of distress priority (3) in the Inmarsat system will not require MAYDAY/ DISTRESS alert to be included.

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28   The organizations listed have assets and may be able to provide direct assistance. They will relay messages to other Naval units as appropriate.

- URGENCY SIGNAL

- PIRACY/ARMED ROBBERY ATTACK

2. Ship's position (and time of position UTC)

- Latitude and Longitude

- Course and Speed (knots)

3. Nature of event

Another advice points are:

- Maintain maximum sustainable speed.

- Consider evasive manoeuvres while maintaining maximum speed to create a confusing wash.

- Manoeuvre to remove any lee from either side of the ship (sea state dependent).

- Activate fire pumps to commence use of fire hoses and water monitors to cover areas of the vessel vulnerable to attempts to board. The water spray and jets are likely to hamper the pirates' physical attempts to board and may deluge their boats, swamping them or causing damage to the engine.

B1.3. Pirates on board

Once the pirates are on board:

- Try to remain calm.

- Stay together so far as it is practicable to do so.

- Crew members operating outside secure areas to remain in constant communication with the Bridge.

- Offer no resistance.

- Cooperate with the pirates.

- Leave CCTV recorders running.

- In the event of military intervention onboard , and unless otherwise directed, all personnel should keep low to the deck, cover their head with both hands (always ensuring that hands are empty and visible). Be prepared to answer questions on identity and status, as military personnel may take some time to differentiate ship's crew from pirates.

Do not

- Use firearms, even if available.

- Use flash photography, which may be mistaken for muzzle flashes by the pirates or by any military forces sent to assist.

- Use flares or other pyrotechnics as weapons against pirates

B2. Piracy fighting systems

B2.1. Technical and electronic systems

First, these systems refer to equipment that can be carried on board to detect, prevent and resist a possible attack. Some of these systems are already implemented by SOLAS regulations for all ships, others are optional and recommended or not depending on the ship and its route and according to their cargo or other factors as the number of crew members or their specific knowledge to use it.

B2.1.1. Close Circuit Television (CCTV)

Once an attack is underway and pirates are firing weaponry at the vessel, it is difficult and dangerous to observe whether the pirates have managed to gain access to the vessel. The use of CCTV coverage allows a degree of monitoring of the progress of the attack from a less exposed position:

- Consider the use of CCTV cameras to ensure coverage of vulnerable areas, particularly the poop deck.

- Consider positioning CCTV monitors at the rear of the bridge in a protected position.

- Further CCTV monitors could be located at the Crew Muster Point.

- Recorded CCTV footage may provide useful evidence after an attack.

B2.1.2. Alarms

Sounding the ship's alarms/whistle serves to inform the vessel's crew that a piracy attack has commenced and, importantly, demonstrates to any potential attacker that the ship is aware of the attack and is reacting to it. It is important to ensure:

- Ensure that the Piracy Alarm is distinctive to avoid confusion with other alarms potentially leading to the crew mustering at the wrong location outside the accommodation.

- Crew members are familiar with each alarm, including the signal warning of an attack and an all clear, and the appropriate response to it.

B2.1.3. Upper deck lightning

It is recommended that the following lights are available and tested:

- Weather deck lighting around the accommodation block and rear facing lighting on the poop deck consistent with Rule 20(b) of the COLREG.

- Search lights for immediate use when required.

- Navigation lights should not be switched off at night.

B2.1.3. Physical barriers

Pirates typically use ladders and grappling hooks with rope attached to board vessels underway, so physical barriers can be used to make this difficult. Before constructing any physical barriers, it is recommended that a survey is conducted to identify areas vulnerable to pirates trying to gain access:

- The construction of barriers will depend on the precise location used but might include barbed or razor wire.

- Extending the width of gunwales to prevent ladders and hooks gaining purchase may be considered.

- Coating gunwales and other potentially vulnerable structures with *anti-climb* paint may be considered.

- Electrified barriers are not recommended for hydrocarbon carrying vessels, but following a safety assessment may be appropriate for some other types of vessel.

- It is recommended that warning signs of the electrified fence or barrier are displayed (Fig. 13)

- The use of such outward facing warning signs might also be considered even if no part of the barrier is actually electrified.

Fig 13[29]: Signs of the electrified fence

B2.1.4. Water spray and foam monitors

The use of water spray and/or foam monitors has been found to be effective in deterring or delaying pirates attempting to board a vessel.

- Manual operation of hoses and foam monitors is not recommended as this is likely to place the operator in a particularly exposed position.

- It is recommended that hoses and foam monitors (delivering water) should be fixed in position to cover likely pirate access routes.

- Once rigged and fixed in position, it is recommended that hoses and foam monitors are in a ready state requiring just the remote activation of fire pumps to commence delivery of water.

- [29] Image from Piracy - The East Africa/Somalia Situation [on line]: Available at: <http://www.marad.dot.gov/documents/HOA_OCIMF_piracy_web.pdf>

- Actual foam supply should not be used as this will be depleted relatively quickly and will leave the vessel exposed in the event that the foam supply is required for firefighting purposes.

- Observe the water and foam monitor spray achieved by the equipment once fixed in position to ensure effective coverage of vulnerable areas.

- Improved water coverage may be achieved by using baffle plates fixed a short distance in front of the nozzle.

B2.1.5. Ship Security Alert System (SSAS)

The SSAS is a joint project between the IMO and Cospas-Sarsat, which aims to improve the safety of the ship. These are the two main features:

- Two keys: Provides a minimum of two alert activation points, one of which must be on the bridge.

- Discrete signal: Enables the activation undercover warning signal transmitted from ship to shore, to a competent authority indicating that the safety of the ship is in danger or has been compromised. It does not send the alert to any other vessel, or listen on board.

- Not necessarily need a software.

In addition, the SSAS must meet performance standards defined by the IMO:

- Must be fed by the main power source of the ship and, preferably, for an alternative source.

- The keys must be protected from unintentional, but easily accessible.

- When it is activated, it must operate through a radio system so that the transmission of the security alert does not require any adjustment of radio systems, tuning of channels, setting of modes or options menu.

- Should not impair the functionality of the GMDSS installation.

- In any case, the transmission started to include a unique identification code indicating that the alert has not been generated in accordance with GMDSS distress procedures.

The main parts of the system are at the follow scheme[30]:

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[30] Scheme from marine-electronic info [on line]: Available at: <http://www.marine-netguide.com/ssas.html>

B2.1.5.1. Inmarsat equipment with SSAS

SSAS is the Inmsarsat definitely bet. The company is working since 2004 in close collaboration with a number of manufacturers and partners to develop the system in all its services: Inmarsat C, Inmarsat Mini-C and Inmarsat D +.

In fact, in 2004, the Furuno brand launched several SSAS via Inmarsat-C. Similarly the model does FELCOM 16 as a Mini-C transceiver Class 2, but not as GMDSS.

Like all Inmarsart, it is easy to install. The operating via Inmarsat-C, model FELCOM 15, was approved for GMDSS including a black box and a SSAS. The basic connection diagram is shown in the Figure 14[31]:

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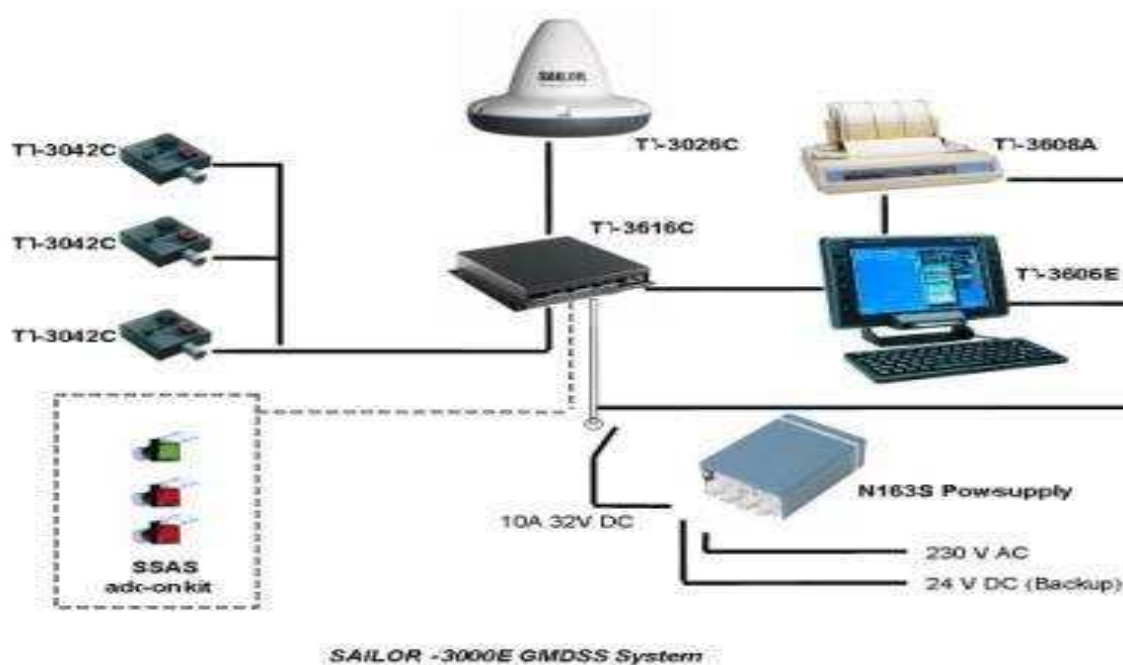
[31] Diagram from marine-electronic info [on line]: Available at: <http://www.marine-netguide.com/ssas.html>

B2.1.5.2. Action onshore

When SSAS is shoot only gets to the ground stations for obvious security reasons. There, at all time the vessel is monitored and tracked with a simple software Cospas-Sarsat (Fig. 15).

Fig. 15[32]: Software Cospas-Sarsat sample:
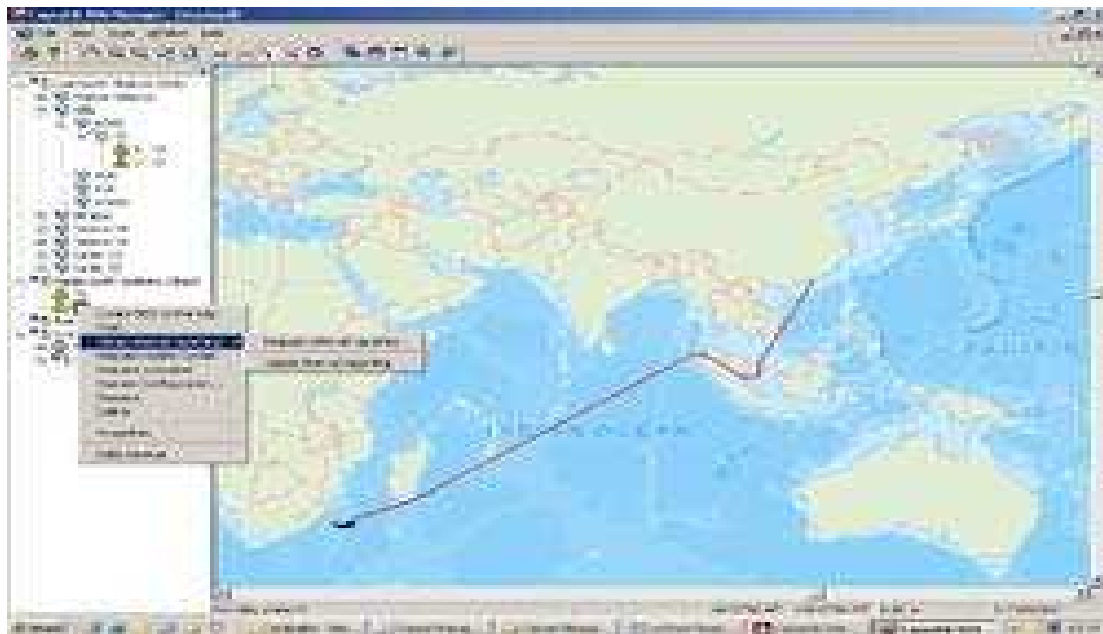
Action protocol is simple. In the case of the company CLS and SSAS anti-piracy system, first, when the button is pressed, it sends a signal to the satellite and reaches the ground CLS station. Then, it sends a message by fax, sms, e-mail

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[32] Sample from Ayyazilim [on line]: Available at:
<http://www.ayyazilim.com.tr/index.php?option=com_content&task=view&lang=en&id=63>

and telephone, to the owner, the authorities of the flag State and IBM. Authorities warn of action forces under the laws and it is coordinated the rescue of the ship assaulted by all means available.

Although it is still at an early stage of implementation, likely will turn into a tool of the bridge more and more common.

Operation and discretion allows it to be highly effective and easy to use. Its reliability is also high when a system based on the satellite network, which is anchored in its strong connection to ground stations, which are essential to coordinate such actions.

Other GMDSS equipment includes anti-piracy alarms, but they are not entirely safe for the crew if the pirates have already made the approach and those alarms are not as straightforward either.

B2.2. Organizational systems

The following systems are described based on the traffic organization (considering the ship as a unit) or the internal structure of the ship (considering the different roles of a crew).

B2.2.1. Armed guards on board

The debate on the issue of arming men on board vessels and the role of private security companies is ongoing. The case for armed guards seems to have hardened in recent weeks and months perhaps in part because of the reluctance to arrest and prosecute pirates and the fact that the naval forces are unable to stop the attacks entirely. Gone are the days when the pirates merely shot ahead of the ship or into the hull. Now reports rounds being fired into accommodation areas are common and there have been several exchanges of fire with armed guards.

The potential escalation of the use of force remains one of the bed rocks of the argument raised against the use of armed guards on ships.

By employing armed guards on board a vessel an owner is making a calculated trade-off: a perceived decrease in the risk of the vessel being hijacked and the subsequent exposure to the losses this brings, against a possible increase in the chance of the crew being harmed or the vessel damaged.

The IMO is actively engaged in discussing the issue of armed guards on ships but their official position remains against their use, fearing it will lead to an escalation of violence and loss of life, and instead calling for greater direction from Flag States.

The British government has made it clear that they disapprove of armed guards and have said that authorization would not be given. However, UK law

does allow for ships to have a shotgun or single shot rifle on board where a permit has been given.

The role of the private security contractor is one that has been examined in some detail in Iraq and whilst accepted by governments and the commercial world, there is no definition of their status in international law.

Further, the confusion of how the law of self defense should work in a hijacking scenario also gives rise to uncertainty. There are a number of key issues to consider when contemplating the use of armed guards.

Many existing companies providing corporate security ashore have moved into the maritime sector. Many more appear to have been established to cope with demand. The boast of years of experience is often at odds with evidence of recent incorporation.

The lack of an accreditation system means it is impossible for an owner to take an objective view, although there are private initiatives being made to address this.

The ability of an owner to show that he has exercised due diligence when employing armed guards remains important.

The security companies may allow owners to see CV of those being deployed, and this is something that should be insisted on, along with confirmation that

the guards being deployed have no criminal records and did not leave their respective *military* services for disciplinary or medical reasons. Such background checks may fall within the owner's duty to exercise due diligence at the commencement of a voyage. This is particularly important as contracts often call for guards to be regarded as crew for insurance purposes.

Using an armed escort in a high risk area may seem easy in theory, but the practicalities are causing real problems as the status of these companies and therefore their vessels is not defined.

Interesting questions have been raised both in terms of responsibility to the master of the ship under escort and under international law as, under Article 107 of UNCLOS, power is given only to military vessels to seize ships involved in piracy.

Questions have been raised as to where the legitimacy for these private gun boats come from. Some arguments have even arisen as to whether the armed intervention of a gun boat is in itself piracy.

Article 19 of UNCLOS provides the definition of Innocent Passage, stating:

Article 19

Meaning of innocent passage

1. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law.

2. Passage of a foreign ship shall be considered to be prejudicial to the peace, good order or security of the coastal State if in the territorial sea it engages in any of the following activities:

(a) any threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;

(b) any exercise or practice with weapons of any kind;

[...]

The provisions on the rights of transit and the regime of local laws as in middle eastern countries make the use of these vessels difficult and controversial. Providing such a service as an agent of a commercial ship owner should give pause for thought.

B2.2.2. International Recommended Transit Corridor (IRTC)

On February 2009 the IRTC (Fig. 16) was amended to reflect revised analysis of the Gulf of Aden pirate activity. It has been positioned further from established fishing areas resulting in a decrease in false piracy alerts.

The change has seen an introduction of Eastbound (in red) and Westbound (in green) corridors. It is not marked by a visual navigation means but it is intended to make warship patrols more effective in dealing with piracy attacks. Each corridor is 5NM wide with a 2NM buffer zone in between.

Fig. 16[33]: International Recommended Transit Corridor ECDIS' sample

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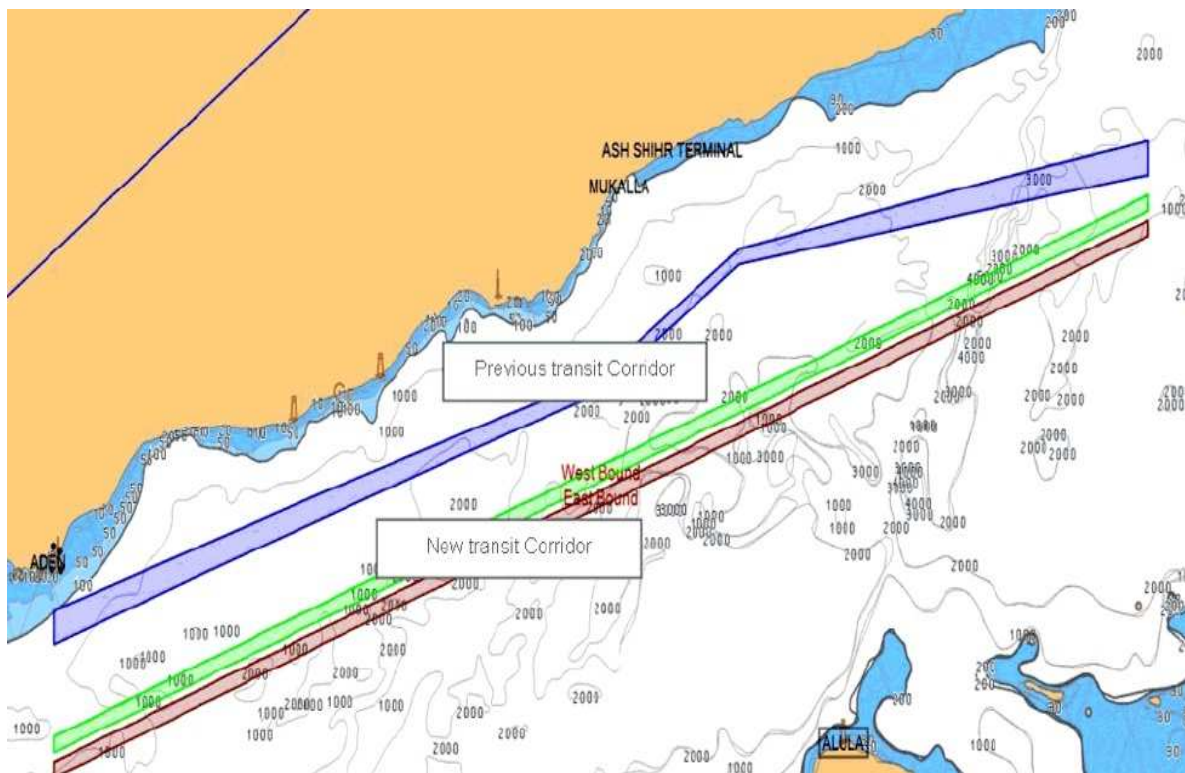
[33] Sample from Maritime Security Center Horn of Africa. [on line]: Available at:
<WWW.MSCHOA.ORG>

Group transits have been developed which are designed to group transiting vessels together in order to exploit the additional protection and assurance than can be gained by grouping vessels together. Transits have been timed to ensure that vessels transit the most vulnerable areas at night.

The second objective of the transit system is to group together all vessels (regardless of speed) around the time of daybreak, ensuring that during what is potentially the most vulnerable time of a vessels transit they are grouped together. These factors allow the naval force to best position their assets to deter and protect against pirate attack.

It should be noted that Group Transits are not convoys. They will not necessarily be accompanied by a warship. Although a vessel may see no other vessels at the start of her transit, other vessels participating in the same transit will converge during the most critical stage of the transit. It is important that a vessel does not stop and wait for other vessels at corridor entry points and they maintain their required speed for their group.

Without registering[34] your vessels movement and transmitting regular position, course and speed updates to UKMTO, EUNAVFOR will not be able to provide warships with information regarding which vessels are in each transit and where and when they should expect to see them.

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34 Registering at the **Maritime Security Centre (Horn of Africa)** website: www.mschoa.org

B2.3. Other proposals

Lastly, a collection of lesser-known alternative (but not so may be less effective) of possible future projects or practical solutions.

B2.3.1. Sound cannons

Its mission is to keep away from specific areas to individuals who do not have to be there. If you do not want to get hurt you have to go away.

Under the name of Long Range Acoustic Device (LRAD), ships are able to repel the attacks and attempted kidnapping. This, by equipment in the form of satellite dishes (Fig. 17) capable of emitting sound frequencies run in excess of 151dB and wide ranges of up to one thousand meters.

Fig. 17[35] Sound Cannon

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[35] Image from Terra Tecnología [on line]: Available at:
<http://www.terra.es/tecnologia/articulo/html/tec17067.htm>

B2.3.2. Strategies developed in the Second World War

It would use strategies such as forming convoys, as the Allies were crossing the Atlantic during the Second World War. These methods also include accelerating the exchange of information between the vessels with the use of spy satellites.

B2.3.3. Non-lethal weapons

Although the main purpose of guns is to inflict pain and damage to the contrary, there are applications where it is helpful to produce technologies that will *convince* the adversary that his attitude is not right but do not end up with him directly.

- Water guns (Fig. 18): The use of water under pressure to hold large groups of people is nothing new, as many riot police vehicles are equipped with a water cannon.

Fig. 18[36]: Soldiers with Water Guns

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[36] Image from Terra Tecnología [on line]: Available at:
   <http://www.terra.es/tecnologia/articulo/html/tec17067.htm>

However, the novelty is to equip police officers on foot with a weapon that can knock an adult without causing damage.

The invention of Special Materials Ltd. of St. Petersburg, Russia, was presented at the last 2009 European symposium on non-lethal weapons. It is about developing a weapon of 1-3 kg of mass capable of driving water with an energy greater than 100 joules, which would be able to knock down a person at a distance of about 5 meters. Basically, it is a water pistol evolved, with the difference that incorporates an electric current that helps to produce high pressure waves. The aim is to replace weapons rubber ball pitchers, because the risk of injury is significantly lower, than 4 meters away the impact area is 33 inches, minimizing the possibility of significant injuries.

- Paintball: A plastic ball filled with biodegradable paint thrown at high speed by a marker (which is basically a tube with a gas cylinder and a trigger) is quite painful.

However, in cases where it has to restrain an angry mob or reduce to an armed suspect, the risk may experience some bruising is not enough incentive not to move towards the police.

So the research department of Bradford non-lethal weapons, thought to modify the concept slightly to make it more effective.

The principle is simple: change the content, filling the balls with the same type of components for the tear gas grenades, and with drugs that calm the masses belligerents. So either will want to go running, to laugh... anything less than what they came to do.

- The Lightning vomited: It is a kind of LED flashlight with hipper brilliants that change color at high speed. According to studies conducted by Vladimir Rubtsov, principal investigator, a combination of colors and pulses can produce disorientation, dizziness and vomiting.

- Phasrs: The difference of any laser pointer that we can buy in a store is that it is able to deter mine the target distance and set the light intensity not to cause permanent visual damage, and has two transmitters at different frequencies prevent the lens from the laser can filter through polarized glasses.

B3. International military intervention

Regional cooperation among States has an important role to play in solving the problem of piracy and armed robbery against ships, as evidenced by the success of the regional anti-piracy operation in the Straits of Malacca and Singapore.

In peacetime, boarding a vessel by the naval forces of a state other than the state of registry may be conducted with the consent of the flag state under articles 92 and 94 of the Law of the Sea Convention.

B3.1. Atalanta Mission

The fight against piracy in the Gulf of Aden has brought unprecedented militarization of the region. Air and naval forces have been deployed in the Arabian Sea and adjacent waters by the most powerful military organizations and two major emerging powers.

It is the first EU mission acting under UN mandate and allowed to enter Somalia's territorial waters to curb piracy. It began on December 8, 2008. Participating countries are: Belgium, Spain, France, UK, Holland, Greece, Sweden, Norway, Portugal and Germany.

- Objectives:

1. Merchant escort World Food Programme with humanitarian aid for Somalia.

2. Protect the commercial traffic in the Gulf of Aden.

Atalanta naval operation was successfully launched, just first three months were repelled 90% attacks in the Gulf of Aden.[37]

B3.1.1. Infrastructure procedure

A) The human intelligence assets identifies in Somali ports the potential pirate's boats

These intelligence services are based on the premise that the pirates have a network of jihadists in ports such as Dubai informing them of routes and cargo of the best targets.

B) The European military observation network of satellites Helios monitors real-time the navigation of suspected boats.

C) In turn, the guards are patrolling the edges of IRTC, in order to notice any irregularities such as a sudden course change or the hasty exit of this corridor areas. At that time, immediately sent a helicopter to check the condition of the vessel with powerful cameras that offer a plan to cover it in detail (Fig. 19).

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37   According to the **Council of the European Union.**

Fig. 19[38]: Inside a Piracy Fighting Helicopter

The helicopter is the most effective military means to combat piracy, it is a resource with which the pirates do not count, quick and powerful, besides having a great deterrent.

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[38] Image from Vista al Mar [on line]. Available at <http://www.vistaalmar.es>

D) The monitoring is completed with P-3 Orion aircraft whose function is to establish patterns of behavior of the mother ships.

E) The EU naval air forces plot grid navigation routes. Then successive *safety windows* are opened free of marauding mother ships, which in the case of entering into these areas are invited to abandon them.

B3.2. Combined Task Force (CTF) 151

It consists of a fleet from 20 countries under their control from the Pentagon. Among the countries that form are: South Korea, Japan, India, Turkey, Russia, Singapore, Saudi Arabia, Malaysia and China.

In the case of China, about 20 percent of the 1265 Chinese ships sailed off the coast of Somalia between January and November 2009 were attacked by pirates, according to official sources quoted by *China Daily*. A total of seven Chinese-owned vessels or Chinese crew were abducted in the same period. Therefore it is a first order problem of national security.

B3.3. Disadvantages of military intervention at operational level

- Many are those who claim that the military action is not enough. The cause is the vast expanse of sea basically, more than one million nautical miles (radius is increasing, as discussed above) that are almost impossible to be covered at once for 24 hours a day.

- The limits of intervention of the armed forces are not clearly defined, as occurred in the absence of definitive judgments about civilian casualties at the hands of pirates, soldiers have limitations when conducting inspections of suspicious boats and to fire or arrest pirates .

- The ideal would be to have a single command, but that is very difficult in the short term for political reasons. What is needed is greater coordination to achieve greater efficiency. At the tactical level easy to do, especially among NATO countries, which share processes and are used to working together.

However, coordination becomes more difficult with others like China or Russia, with which EUNAVFOR simply exchanges information.

B4. The IMO current policy

In January 2009, an important regional agreement was adopted in Djibouti by States in the region, at a high-level meeting convened by IMO. The Code of Conduct concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden recognizes the extent of the problem of piracy and armed robbery against ships in the region and, in it, the signatories declare their intention to co operate to the fullest possible extent, and in a manner consistent with international law, in the repression of piracy and armed robbery against ships.

The signatories commit themselves towards sharing and reporting relevant information through a system of national focal points and information centers; interdicting ships suspected of engaging in acts of piracy or armed robbery against ships; ensuring that persons committing or attempting to commit acts of piracy or armed robbery against ships are apprehended and prosecuted; and facilitating proper care, treatment, and repatriation for seafarers, fishermen, other shipboard personnel and passengers subject to acts of piracy or armed robbery against ships, particularly those who have been subjected to violence.

Implementation of the Djibouti Code of Conduct will help to:

- improve communications between States;

- Enhance the capabilities of States in the region to deter, arrest and prosecute pirates;

- Improve States' maritime situational awareness; and

- Enhance the capabilities of local coast guards.

IMO has also revised the guidance on measures to take to deter piracy, to include region-specific guidance based on industry best management practice.

IMO is also seeking additional support from States able to provide warships and maritime patrol aircraft for the Gulf of Aden and Western Indian Ocean area and is focusing on bringing the recently opened Maritime Rescue Coordination Centers in Mombasa and Dar es Salaam into the counter piracy role.

In the longer term, IMO is seeking to promote international action to stabilize the situation in Somalia through the UN Security Council, the UN Political Office for Somalia, the UN Development Programme, the Contact Group on Piracy off Somalia, and others.

In the case of the situation off Somalia, developments ashore are probably the only way to resolve this problem in the long term.

In the meantime, it is essential to maintain support from States able to provide warships and maritime patrol aircraft until the political situation is resolved.

Conclusions

- Common patterns are found in high risk piracy areas: densely populated, socially dysfunctional and politically disorganized. Poverty and misery impede the positive development of economic activity. Social inequalities appear to be a potent driver towards violence and piracy.

- The inhabitants of these coastal areas often know how to navigate (they have the necessary skills) due to their cultural tradition or daily activities as they have always lived from the sea. So, for them piracy appears to be another way to extract resources.

- There is a trend towards "piracy professionalization" in areas that have been affected by overfishing and environmental degradation due to a lack of pollution control. This means that the pirate gets to know modern technology and has access a lot of information, and is aware that there is no legislation which guarantees a criminal conviction.

- Piracy is developed at high traffic sea passages, which means a large number of potential targets in areas where the terrain surrounding the vessels makes them more vulnerable. These type of areas should therefore be strictly monitored to adopt preventive measures to avoid the recurrence of such criminal behavior in other parts of the world.

- Each specific area has its own criminal organization itself. This means that regional cooperation schemes have to be adapted to its specificity. Some points to consider are: the organization of military patrols, the area of pirate's action, and cultural factors such fanatical terrorism.

- General recommendations to specific merchant ships are based on preventive measures complementing the ISPS Code. It is important that ships may not seem an easy target: sailing the high-risk areas at full speed, if a suspicious vessel is observed must maneuvering to ensure that there is no scope, and always enhancing vigilance using all possible technological means.

- Ships sailing in these areas must have a plan with defined protocols. It is important to include evacuation muster points on board, communications' list and trained crew.

- Since an economic point of view, the keys are fuel consumption and insurance policies. Assessing what is most profitable sale should not depend on the safety of the ship.

- Many of the equipment on board can be used in the fight against piracy. For example, physical barriers or fire fighting systems. It is important that all equipment is operational and in good conditions.

- The SASS is very useful as it is the most discreet and allows for direct contact with the authorities. It is absolutely necessary and must follow the rules defined by IMO.

- Other options for strengthening security are the armed guard on board. The official position of the IMO is against this option to be governed by Articles 19 and 107 UNCLOS. Its biggest advantage is the power of deterrence against the pirates and its disadvantage is the danger they pose on board (UNCLOS art. 19), among others. Similarly there is an open debate to define as far as the jurisdiction of the personnel within the vessel (UNCLOS art. 107.).

- Therefore, military intervention is necessary and each day more countries join the two major military fronts open fighting piracy: Atalanta EURONAVFOR missions and CTF 151. These military missions should promote more cooperation, not only the exchange of information as currently.

- The IMO prevention lines should enhance involvement and collaboration between states. And to point out that all policies are based on a prioritization of high risk areas, which causes the trend of pirate activity in areas such as down the Strait of Malacca, but in other areas like the Gulf of Guinea continue upward trend by cataloguing.

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Index

B. PIRACY FIGHTING

Maritime Piracy: Global Analysis throughout Prevention and Control

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