Fernando Ibáñez Gómez
Researcher Wigía Research Group, University of Zaragoza

Miguel Ángel Esteban Navarro
Professor of Information Science. University of Zaragoza

ANALYSIS OF THE SOMALI PIRATE ATTACKS IN THE INDIAN OCEAN (2005-2011): EVOLUTION AND MODUS OPERANDI

El objetivo del artículo es descubrir el modus operandi de la piratería somalí durante su período de actuación más álgido: 2005-2011. El método empleado consiste en la identificación, cotejo y análisis de 19 categorías para cada uno de los 1.190 incidentes atribuidos a los piratas somalíes por diversas fuentes de información oficiales. Los resultados permiten mostrar un panorama general de los ataques piratas y su evolución, y otro más específico que refleje las diversas zonas del Océano Índico en las que se han producido. Se destaca y analiza la capacidad de adaptación de los piratas somalíes para mantener su actividad frente a las medidas emprendidas para su represión y cómo se han convertido en una amenaza a la seguridad internacional. Se concluye que la metodología propuesta ha resultado de utilidad y puede ser empleada para el análisis de otros fenómenos de piratería marítima moderna y la realización de estudios comparativos.

Piratería marítima, Seguridad marítima, Somalia, Océano Índico, Crimen organizado.

The aim of this article is to find out about the modus operandi of Somali piracy during its most intensive period of activity: 2005-2011. The method used consists of the identification, matching and analysis of 19 categories for each one of the 1,190 incidents attributed to Somali pirates by diverse sources of official information. The results make it possible to demonstrate a general panorama of the pirate attacks and the way they have evolved, and another more specific one that reflects the diverse parts of the Indian Ocean in which they have taken place. The capability of Somali pirates to adapt in order to continue with their activity in the face of the measures carried out to repress them, and how they have become a threat to international security is highlighted and analysed. It is concluded that the methodology put forward has been useful and it can be used to analyse other modern maritime piracy phenomena and to carry out comparative studies.

Maritime Piracy, Maritime Security, Somalia, Indian Ocean, Organized Crime.

ANALYSIS OF THE SOMALI PIRATE ATTACKS IN THE INDIAN OCEAN (2005-2011): EVOLUTION AND MODUS OPERANDI

1. Introducción

The piracy that has harrowed the waters close to Somalia in the last decade and the measures that the international community has carried out to repress it are two events with extensive media and political repercussions, all over the world. The main objective of the Somali pirates is to hijack ships and kidnap crews, with the aim of obtaining a plentiful ransom. However, despite their financial motive, this is of special relevance in aspects related to security. The fact that it is taking place in one of the main commercial shipping routes on the planet (the one that runs between the Suez Canal and the Gulf of Aden) where over 200,000 ships travel each year. A particular type of response has been developed in some waters that are particularly of interest in terms of fishing resources. This is where the biggest military naval concentration in recent decades has been seen, and the European Union has set its first naval mission in history underway, under the name of EU NAVFOR/ATALANTA. In the same way, NATO has deployed three anti-piracy operations; different countries (India, Russia, Japan, China, etc.) have decided to send large ships to that region with the aim of protecting their merchant vessels.

The aim of this article is to find out about the modus operandi of the Somali pirates, based upon the identification and studying of all of the incidents that have been reported in the news, committed during the most intensive period of piracy activity, between 2005 and 2011. An analysis will be made of their evolution, so as to become adapted to the different responses –mostly of a military nature – that have been carried out so as to repress this phenomenon. This work falls within the framework of research of an extensive nature, whose objective is to understand the nature of modern-day maritime piracy, on the basis of studying what form this criminal activity has taken in the Indian Ocean in recent years, along with the threats that arise for international security. To do this, we start by considering it to be the particular form of activity of organised crime, which has nonetheless developed, in the face of the military response deployed by the international community, strategies that are particular to a weak point of an asymmetric conflict[1].

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[1]   IBÁÑEZ, Fernando. La amenaza de la piratería marítima a la seguridad internacional: el caso de Somalia. Instituto Español de Estudios Estratégicos, Colección de tesis doctorales, Madrid: Ministerio de Defensa, 2013, p.417.

Our analysis begins in 2005 because, up until that year, pirate attacks occurring near the Somali coast had mainly featured local fishermen who were seeking to defend their resources from the actions of foreign fishermen that were fishing illegally, in an unregulated and irregular manner[2]. However, since the early times of 2005, Somali piracy increased notably to the point where it began to be considered that this was becoming a problem of maritime security. Hence, different international bodies then recommended that maritime shipping should stay further and further away from the Somali coast[3]. The time analysis ends in 2011, the last year that there is full information about. Seven years is a sufficient time period to gain an overview about the phenomenon of Somali piracy. In turn, this enabled us to confirm whether this is an activity that is evolving over time or whether, on the other hand, it follows certain stable patterns. This study does not include the armed robberies that usually take place in the ports and their surrounding areas, since these cannot be attributed to Somali pirates.

We have used four sources that report on pirate attacks. Firstly, the reports published by the Piracy Information Centre of the *International Maritime Bureau*, a division of the International Chamber of Commerce (IMB). This is the source that is considered most reliable and, therefore, one that is frequently quoted by analysts. Secondly, the *Anti-Shipping Activity Messages* database provided by the National Geospace Intelligence Agency (NGA) and the reports from the Naval Intelligence Office, also from the United States. Thirdly, the circulars concerning acts of piracy and armed robbery at sea published by the Maritime Security Committee of the International Maritime Organisation (IMO), a specialist United Nation body that promotes maritime security. These three bodies report on the pirate incidents they have knowledge of through the information provided by the shipping companies, ship captains, other public and private bodies and the mass media. Lastly, we have used the data provided by the alerts broadcast during 2010 by the Maritime Security entre for the Horn of Africa, MSC(HOA), of the EU NAVFOR/ATALANTA Operation. The fact that these alerts are broadcast a short while after an attack takes place –barely 15 minutes on some occasions- usually causes the most frequent errata. In any event, we have studied the alerts because of their interest, with the aim of matching their information with that provided by other bodies and thus checking the reliability of the different sources and whether or not there are significant discrepancies between these (they appear as EUN in our database).

The integration of these four sources has made it possible to identify 1190 attacks reported and attributed to Somali pirates between 2005 and 2011 (table 1). They represent a further 31% of incidents than the source usually quoted as the most reliable one: the IMB reports.

2   HANSEN, Stig Jarle. "Piracy in the greater Gulf of Aden. Myths, Misconception and Remedies". Oslo: Norwegian Institute for Urban and Regional Research, 2009, p. 19.

3   MURPHY, Martin N. (2011). Somalia: The new barbary? Piracy and Islam in the Horn of Africa. New York: Columbia University Press, p.17.

	IMB	IMO	NGA	EUN	Total
2005	45	44	47		51
2006	19	22	38		39
2007	50	50	54		63
2008	113	117	186		197
2009	218	215	222		247
2010	220	224	245	160	290
2011	237	282	243		303
TOTAL	902	954	1035		1190

Table I: Somali piracy incidents reported annually by different sources

One of the first problems that we have confronted is the lack of one single centre, responsible for monitoring the pirate incidents. For the IMO, pirate attacks only occur at high sea, launched from a boat and with private aims in mind. The IMB considers these to be the attacks that occur at both high sea and in the territorial waters of a State, assaults that take place from a wharf and the incidents whose origin lies in political reasons. The IMO bases its data on the definition laid down by international Law. The IMB is concerned with any attack suffered by a boat, whether it is sailing, at anchored or moored at a wharf, although it does not take account of small robberies if the attackers are unarmed. The NGA considers more incidents than the IMB, fundamentally because it includes situations where the crews of a ship feel an approach is suspicious.

In addition, the fact that the same incident is reported to more than one centre, or the information reaches each source via a different route (the ship-owner, the captain, the mass media) means that the same attacks is sometimes reported several times at the same source (something that commonly occurs in the NGA database), with the confusion that this produces. Another common phenomenon is for the same incident to be reported at different sources at different times or even on different dates. Even allowing for a difference of up to half an hour, there are a hundred incidents where the asynchronous conferencing goes beyond this period, up to 8% of the total number of attacks reported. In other cases, the same incident is reported from different locations, dozens of miles apart. Geographical coordinates are also provided that do not relate to the region or incidents are reported on land. We have counted up to 20 errors of this type.

In the same respect, each one of the sources reports the incidents in its own way. For example, for one particular body the same attacks may have taken place in Somalia, while for another one it happened in the Indian Ocean. It may even be the case that the same body –for example the IMB, in its 2005 report- may describe several incidents occurring in the Gulf of Aden and as taking place in Somalia. However, in later reports, and in incidents spread over the same region, it considers that the attacks happened in the Gulf of Aden and not in Somalia. Thus, it seems necessary to

establish some type of code that enables us to decipher what we understand when we are talking about an attack occurring in Somalia, in the Gulf of Aden or in the Indian Ocean.

We have decided to use one specific geographical reference point to divide up the area of activity of the Somalia pirates: the maritime domain of each State, that is to say, the space that covers 200 miles from the coast and that includes: the territorial sea (12 miles from the base line) and the Exclusive Economic Zone (the next 188 miles). This is an area that includes the zone of influence of the State with respect to its natural resources. We have extracted the data regarding the maritime domain of each country from the database prepared by the *Flanders Marine Institute*. As we can see in image 1, the division of the area of activity of Somalia pirates, taking the maritime domains to be the base, leaves out an extensive central area of the Indian Ocean. We use the Indian Ocean denomination for this region.
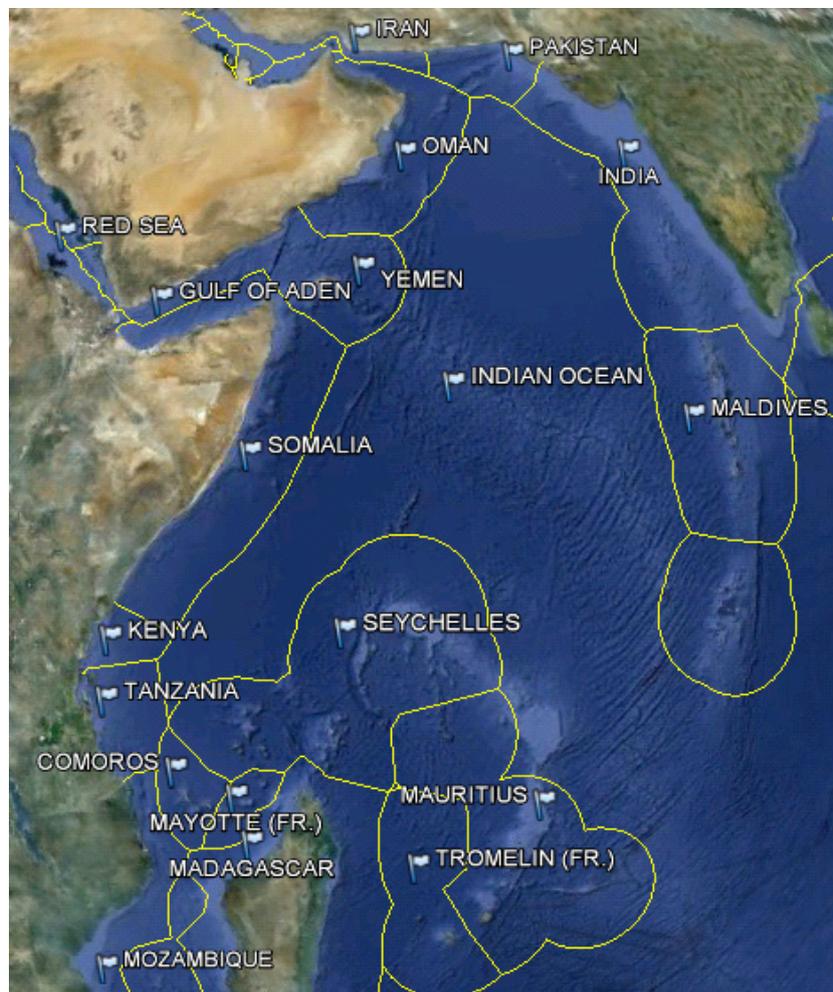

Image 1: Maritime domains of the countries and of the areas of operations of the Somali pirates between 2005 and 2011.

Similarly, we find one area, the, Gulf of Aden, where the international community has established two maritime security corridors: between August 2008 and February 2009, the Maritime Security Patrol Area (MSPA), which from the latter date was replaced by the International Recommended Transit Corridor (IRTC), which forms

two parallel passageways that run across the central part of the Gulf (image 2).

Image 2: On the left, geographical boundaries of the Gulf of Aden and the security corridors. On the right, geographical boundaries of what we consider to be the Gulf of Aden.

The presence of these corridors explains how most of the attacks occurring in the Gulf of Aden have been concentrated there, as most of the ships sail through these security corridors. This is why it does not seem reasonable to use the maritime domain concept here. In addition, the corridors do not set geographical limits on the Gulf of Aden either, but rather they go beyond this to the east, to the north of the Socotra archipelago. In image 2, on the left, we can see the geographical boundaries of the Gulf of Aden, as these are set by the International Hydrographical Organisation (IHO) and the location of the security corridors. As we can see, part of the security corridors lie outside the geographical boundaries of the Gulf of Aden. For this reason, we have decided to extend the area that we call the Gulf of Aden, with the aim of including the security corridor and the adjoining areas. Thus, we consider all of the incidents reported within the regions that appear on the right in image 2 as occurring in this Gulf. To the west, there is the geographical boundary set by the IHO for the Gulf of Aden and to the east, the one that we establish. The boundaries of this are; to the north, the frontier between Yemen and Oman, and to the east, the Yemeni Socotra archipelago.

This decision, which in reality is imposed by the international community when it creates a security corridor in the Gulf of Aden, also compels us to considerably reduce the area of the maritime domain where we consider in our database to be attacks occurring in Yemen. In our analysis, the attacks contained within the maritime domain of Yemen, which does not form part of the Gulf of Aden, will grouped together in that region; that is, to the east and south of Socotra (image 3).
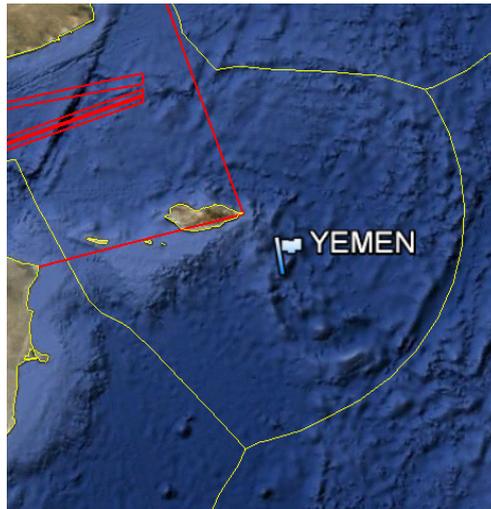
Image 3: Area of the maritime domain of Yemen that groups together the attacks occurring in its territory, according to our database.

In the same way, we consider that the geographical region of the south of the Red Sea may be considered to be one single zone. Dividing the incidents in this region amongst the different maritime domains (Djibouti, Yemen, Saudi Arabia, Eritrea or Egypt), seems to us to be less clear as it encompasses the entire region with the name Red Sea.

In the rest of the area of activity of the Somalia pirates, we look at the maritime domains of each country: Somalia, Kenya, Tanzania, Mozambique, Madagascar, Seychelles, India, Pakistan, Iran, the Maldives, Mauritius, Oman, Mayotte, Tromelin Island or Comoros.

We have studied each incident one by one, with the aim of obtaining all of the possible information and thus enriching our analysis in this way. We have established 19 categories for this: date of the incident, time, position, geographical region, status of the ship (whether it was sailing, at anchor or moored in port), name of the ship, type of ship, ship ensign, number of launches that attacked the ship and the people who were in each one, weapons that the attackers were carrying, actions taken on board, request for help (to a body, to military forces present, etc.), whether help was received or not, and of what class (a military helicopter, a rescue operation, etc.), whether the pirates opened fire on the ship or the crew, whether there was personal injury or material damage, where the capture of the boat took place, the duration of the attack and, finally, the source that reports it. We have done an initial classification of the records into seven groups, one for each year between 2005 and 2011; a second one for each one of the nine geographical regions in which the Somali pirates operated in these years (Gulf of Aden, Red Sea, Indian Ocean, Somalia, Yemen, Kenya, Tanzania, Seychelles, Oman) and a tenth one called Rest. This one includes more than 50 attacks occurring between 2009 and 2011 in India, Pakistan, the Maldives, Mozambique, Madagascar, Mauritius, Iran, the Comoros, the French territories of Mayotte and Tromelin Island, as well as three incidents that were not reported from the area where they happened.

Usually, the sources used report the attacks in UTC time, zero meridian time. The attacks attributed to Somalia pirates between 2005 and 2011 range from the region corresponding to UTC+2, up to UTC+5. We have modified the times of the attacks offered by the different sources, when they have used the UTC format, and converted it into LT (*local time)*, with the idea that reflects the corresponding time zone and so the opportune comparisons can be done in this way.

3. Results

3.1. General panorama

According to our data, the evolution of the attacks attributed to Somali pirates between 2005 and 2011 is shown in image 4:
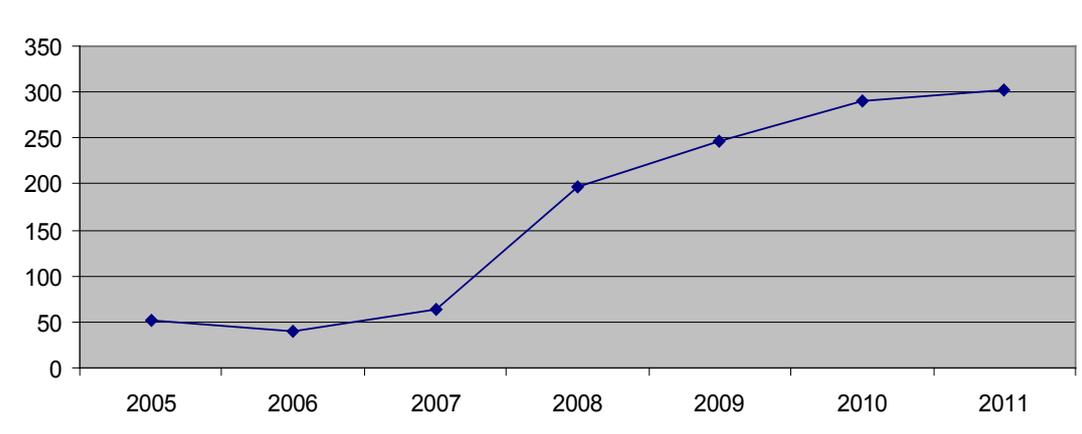

Image 4: Somali pirate attacks by year

In the two-year period 2005-2007, the annual average number of Somali pirate attacks was roughly 50. A real explosion in piracy took place in 2008, which was four times the data from the previous year and it has kept on escalating since then, rising above 300 attacks in 2011.

38% of the attacks took place in the Gulf of Aden. In second place comes the Indian Ocean, with 26%. Quite a long distance behind are Somalia, the Red Sea and the Seychelles. These five regions covered 84% of the incidents that can be attributed to the Somali pirates. However, this prevailing figure was not homogeneous throughout all of the years (table II).

ZONA DEL ATAQUE	2005	2006	2007	2008	2009	2010	2011	2005-11
GULF OF ADEN	14	16	14	165	125	69	52	455
INDIAN OCEAN	6	7	21	22	57	93	105	311
RED SEA	4	7	4	3	11	30	52	111
SOMALIA	27	9	18	3	8	11	3	79
YEMEN			3	2	7	9	6	27
TANZANIA			2			17	9	28
KENIA			1	1	2	12	4	20
SEYCHELLES				1	29	10	6	46
COMOROS					1	3	3	7
IRÁN					2	2	7	11
OMÁN					3	16	40	59
MAURITIUS					1		1	2
INDIA						6	6	12
MADAGASCAR						2	1	3
MALDIVES						2	1	3
MAYOTTE						2	1	3
MOZAMBIQUE						4	1	5
TROMELIN						1		1
PAKISTAN							4	4
TOTAL	51	39	63	197	246	289	302	1187

Table II: Somali pirate attacks by regions

There are two quarters in which it seems like pirate activity falls away significantly, those that correspond to the influence of the monsoons in the Indian Ocean: between June and August and from December to February. This is why two out of every three attacks re concentrated in the least problematic months in weather terms, from March to May and from September to November.
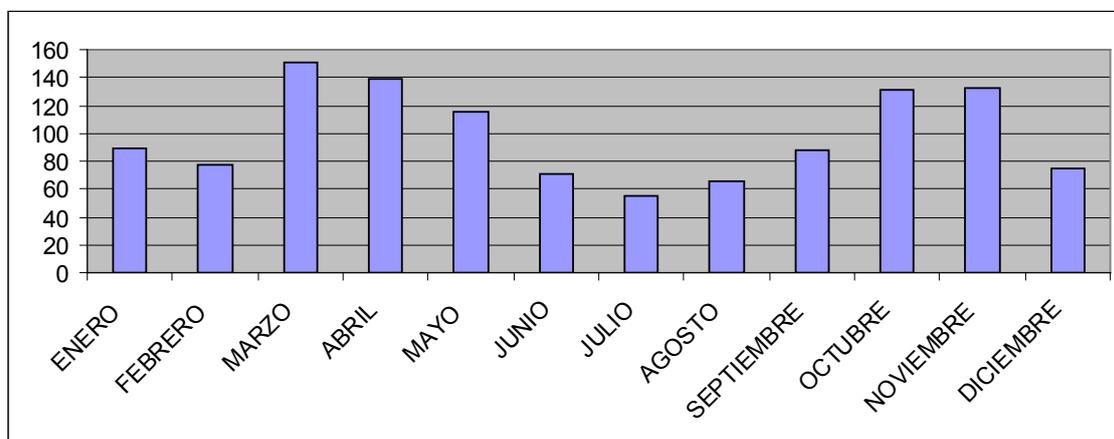
Image 5: Somali pirate attacks by months (2005-2011)

Pirates are active over 24-hour periods, although they are especially concentrated between 7 and 10 in the morning, local time. The percentage of threats that take place at dawn or dusk remain stable over the course of the time series. One in every six incidents takes place at night. The reality described is not uniform for all of the areas analysed. Some regions move a little away –or not at all- from the stated pattern (Gulf of Aden, Somalia, Indian Ocean, the Red Sea, the Seychelles, Oman); but in others, night-time incidents are more common, as happens in Tanzania (with 48% of the total) and Kenya (26%); or they fall below the average rate, such as in Yemen (4%) or India (no case reported).
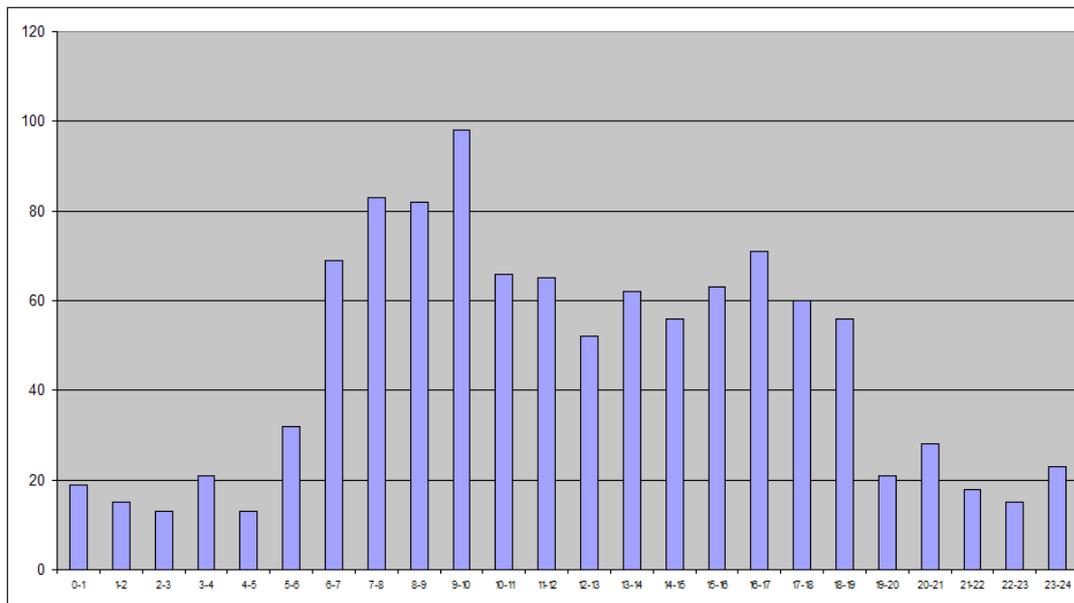

Image 6: Somali pirate attack by times (2005-2011)

99% of the ships attacked were sailing at the time of suffering the attack. No ship was moored up, and only ten were at anchor: eight of these in ports of Somalia, one in Kenya and another one in Oman. This is a specific characteristic of Somali piracy. This is because their intention is to hijack the ship with the aim of asking for a ransom. If they think that the vessel captured does not offer a lot of possibilities of collecting money for it, they may decide to use it as a mother ship, from which to launch new attacks later on. In all of the cases in which the Somali pirates managed to board the ships, the objective was not to hijack it in just three cases.

Somali ships attack all types of vessels. Three out of every four vessels attacked are tankers, bulk carriers, cargo boats or container ships. Since most of these follow the same route, once or several times per year, it is not uncommon for the same ship to be attacked on several occasions over the course of the time series analysed. 83 attacks on fishing vessels were reported between 2005 and 2011, out of a total of 1104 vessels that know the type of. This figure represents 7% of the total, and it has not significantly evolved over the course of these years. This seems to confirm the idea that, while the defence of their own natural resources could have been used as a form of justification

for the Somali piracy activity some years back, the fact that over 90% of the ships attacked were not fishing vessels considerably reduces this factor in terms of being a legitimate one.

Ships flying various ensigns were attacked. One in every three ships attacked was under the flag of Panama, Liberia or the Marshall Islands. The fact that flags of convenience are used, due to their tax, economic and labour advantages, significantly detracts from any analysis. According to the International Transport Workers Federation (ITWF), there are 32 flags of convenience. Following the ITWF criterion, 55% of the ships attacked were sailing in these circumstances.

84% of the attacks involved one or two launches, and incidents in which more than three skiffs take parts are extremely rare. There has been no significant evolution in the number of launches with the passing of the years. In half of the attacks reported, the launches set sail with four of five pirates on board.

The weapons used by the Somali pirates are usually assault rifles and grenade launchers. On the odd occasion, the pirates carry explosives, but this seldom happens. The percentage of attacks in which the pirates fired shots on the ships increased notably in the last three years. On average, shooting occurred in 35% of the attacks. The Somali pirates seem to be more violent in the Seychelles (60% of attack featuring shooting) and Somalia (48%). They were less violent in the Gulf of Aden (31%) and the Red Sea (25%). 27% of the ships attacked suffered damage due to pirate shots, whether in the form of the impact of the bullets on their structures or from grenades launched from RPGs. The level of damage was above average in the Seychelles and the Indian Ocean, and lower in Somalia and the Red Sea. It was about average in the Gulf of Aden. However, in spite of the fact that the occasions in which the pirates fire shots has increased, the material damage caused has been on a downward trend since 2006. One in every four ships that the pirates shot at suffer some kind of material damage, although this does not usually stop the ship being sailed and reaching port.

The number of injured and dead crewmembers has increased considerably in recent years. Most of the victims took place in rescue operations carried out by regional or local authorities, with the aim of freeing the crew members who had been kidnapped.

	2005	2006	2007	2008	2009	2010	2011
INJURED (CREW)	1	2	6	2	7	15	7
DEAD (CREW)		1	2	15	2	9	9
INJURED (PIRATES)	1			3			2
DEAD (PIRATES)						1	9

Table III: Personal injury reported

As regards the actions taken on board the ship attacked, it is quite common to follow a protocol of action, which the shipping-company provides, which has limited the possibilities of suffering a pirate boarding: zigzag sailing and getting the fire-fighting equipment ready. The aim of this is to make it hard to board. Dummies are

displayed that simulate carrying weapons, flares are shot towards the pirates, defensive measures are taken such as concertina formations, sound cannons, etc. It is important to take note of the significant increase in the presence of private security in the last two years, to the point at which, in 2011, 35% of the ships attacked had an armed private security team on board. It is increasingly common to find that a ship that has been attacked twice has got a security team on board on the second occasion. One of the most successful defensive strategies consists of enclosing all of the crew in a safe place known as a panic room or citadel, after sending a message for help, disabling the engines or stopping them working normally from the enclosure space. In this way, even though the pirates have boarded the ship, they find it materially impossible to sail it and usually, after a few hours, they end up abandoning it. This is a recommendation made by the IMB, in June 2009, which has been used more and more frequently. This was successfully employed in some twenty cases in the following year; and in 2011, it was satisfactorily utilised in 66 attacks. Then again, on two occasions, the pirates were able to gain access to the place that the crew had believed was safe and hijacked the ship.

The ships boarded asked for help in 80% of the cases and they received it in 26% of them. It seems logical that all ships that are suffering an attack should report their situation and ask for help, but we are aware that there are some attacks that are not reported or complained of by those suffering them. Special mention should be made of the number of occasions in which help was received after it was asked for, which came from an air or sea military unit. More help is received in the Gulf of Aden (33% of the cases). This is a logical piece of data if we take account of the fact that there is a security corridor there. It is harder for help to get to the Red Sea (25%) or the Indian Ocean (only 11%).

The number of ships attacked or hijacked appears in table IV. The significant fall in pirate activity in 2006 seems to be related to the suppression of the pirate bases, undertaken by the Union of Islamic Courts during a large part of that year. Their subsequent defeat at the hands of Ethiopian troops made it possible, however, for an upturn in the level of pirate activity. The total number of ships boarded or hijacked has undergone an upward trend since 2007, and a spectacular one since 2008. Of the 209 ships hijacked, 37% suffered this in the Gulf of Aden, followed by the Indian Ocean and Somalia, with 20% and 19% respectively.

2005	2006	2007	2008	2009	2010	2011
17	6	12	46	53	75	50

Table IV: Number of ships hijacked/boarded

We can measure the rates of success of the Somali pirates by comparing the number of hijacks against the total number of attacks. In this case, the average success rate was 21%. However, this fell to a half of this figure in 2011 (10%).

As can be seen in table IV, a significant reduction in the number of ships boarded and hijacked by Somali pirates took place in 2011. It should be pointed out that, of the

75 ships hijacked or boarded in 2010, 20 were boarded, but ultimately not captured, due to the fact that in most cases the crew locked themselves away in a safe place and so they avoided the hijacking. The same thing happened in 2011, by a dozen incidents. These cases are usually resolved in two ways: either the crew –after a few hours have passed- come out of the safe area because the pirates have abandoned the ship, or a military unit arrives at the ship and informs the crew that there are no pirates on board and they can leave their shelter.

This piece of data means that, in reality, 53 ships were hijacked in 2009, 55 in 2010, and 35 in 2011. However, while the number of hijacks fell in 2011, this has not meant a proportional reduction in the number of rescues. According to the United Nations Office on Drugs and Crime, Somali pirates obtained 170 million dollars in ransoms in 2011, as compared to the 110 million that they obtained in 2010[4]. Thus, the level of ransoms increased by 35% in a year, despite the fact that the number of hijacks fell by 40% in the same period. The gains from pirate activity do not exclusively depend on their success rate. In our opinion, the combination of the three factors (the security corridor functioning properly in the Gulf of Aden, the presence of armed team on board and the use of safe areas when the ship is boarded) had the consequence of a considerable reduction in the number of hijacks in 2011.

Of the 222 vessels that were hijacked, only 58 received assistance, that is to say, 26% of the total. Of these 58 vessels, 50% were liberated thanks to that help. In short, only 29 vessels (13% of the total) were liberated thanks to external intervention, usually a rescue operation launched by military forces.

We also wanted to find out about the average duration of a pirate attack. Unfortunately we only know this data in 167 incidents, 14% of the total (image 5). Four in every ten attacks last for less than half an hour, and it is not unusual to be informed about others that are prolonged over the course of two or more hours.

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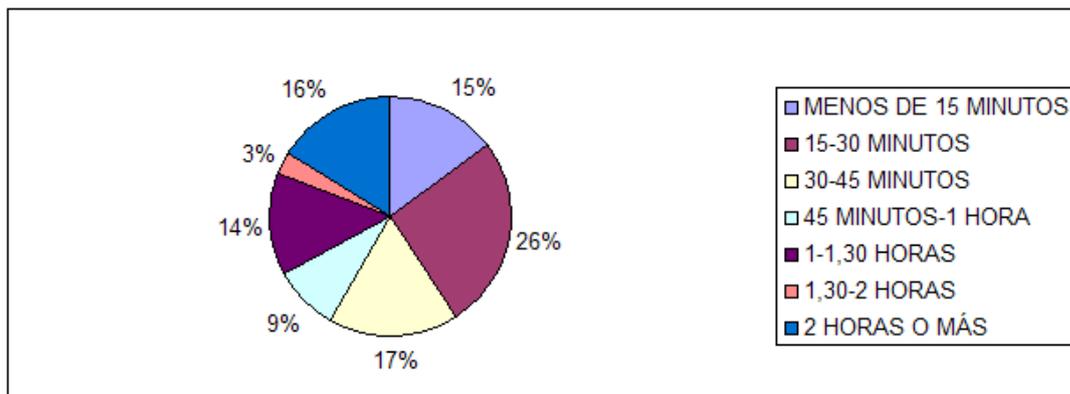
4   "Ransom money laundered by pirates affects stability in the Horn of Africa, says UNODC chief", United Nations Office on Drugs and Crime, 22 February 2012; http://www.unodc.org/unodc/en/ frontpage/2012/February/ransom-money-being-laundered-by-pirates-affects-stability-in-the-horn-of-africa-says-unodc-chief.html?ref=fs1

Image 7: Duration of pirate attacks

Key:

MENOS DE 15 MINUTOS –LESS THAN 15 MINUTES

15-30 MINUTOS- 15-30 MINUTES

30-45 MINUTOS- 30-45 MINUTES

45 MINUTOS – 1 HORA- 45 MINUTES- 1 HOUR

1-1.30 HORAS- 1-1.30 HOURS

1.30-2 HORAS- 1.30-2 HOURS

2 HORAS O MAS- 2 HOURS OR MORE

3.2. Overview by geographical regions

3.2.1. Gulf of Aden

Because the security corridor called the MSPA was set underway in 2008, a significant effect took place, with the attacks moving from the Gulf of Aden to the corridor mentioned. During the time the MPSA was in effect, 53% of the attacks happened in the Gulf of Aden, When the ITRC began operating on February 1, 2009, 49% of the attacks occurred in the new corridor. 46% of the attacks in this region in 2010 and 32% in 2011 took place in the security corridor. The Gulf of Aden, whose role as a region of pirate activity was indisputable in 2008 and 2009, nonetheless had its importance reduced from 2010.

The incidents are spread out in a more proportional way over the course of the year in the Gulf of Aden. This is because the influence of the monsoons is not was well-known there as it is in more open spaces. In the Gulf of Aden, the pirates prefer to carry on their activity between 6 and 10 o'clock in the morning. Outside assistance was requested on 82% of the occasions and the level of help received is linked to the start-up of the security corridor in 2008. While the percentages of help received beforehand did not reach 30% of the cases, after it came into effect, it was at an average of 50% between 2008 and 2011. In 2011, the number of cases of help received fell drastically in the Gulf of Aden, although this piece of data has been translated into an increase in the number of hijacks. In our opinion, the reason lying behind this apparent contradiction is the greater use of armed private security teams by merchants. An increase in the rate of violence used by the pirates since 2008 was also observed, causing material damage in 5% of the ships attacked.

The pirates' success rate reached its highest level in the series in 2008 (23% of the attacks ended with the ship being hijacked). In the following year, the figure for attacks was reduced by almost a quarter, and there was also a proportional decrease in the success rate. In spite of the attacks being reduced again in 2010, the pirates managed to keep

their success rate at 23%, but this figure fell to 9% in 2011. It is significant that 11 of the 39 hijacks that occurred in 2008 were in the MPSA. A further 20 ships were hijacked in the IRTC, or in less than 3 miles of the corridor, between 2009 and 2011.

The fact that part of the vessels does not receive help in the Gulf of Aden could be related to the phenomenon that, according to data from the EU NAVFOR/ATALANTA operation, 25% of the ships are not registered to take part in the convoy groups of the security corridor. This significantly reduces the possibilities that the military forces deployed being able to find out the place where a vessel is located until this attacked by the pirates. The level of military protection in the Gulf of Aden has been heightened with the passage of time. While, in 2008, it was only possible to liberate 30% of the ships hijacked with the help received, that percentage reached 80% in 2009 and a full 100% in 2010 and 2011.

3.2.2. Somalia

In the Somali military domain, between 2005 and 2011, 6% of the total amount of incidents attributed to the Somali pirates was reported. Almost 7 out of every 10 attacks occurred in Somalia between 2005 and 2007. In that country, October and May are the months of greatest pirate activity, as the weather conditions particular to the monsoons have no effect. 40% of the attacks were concentrated between 11 hours and 17 hours. A figure similar to the average one for incidents is recorded for night-time attacks in Somalia. In eight incidents, the ship attacked was at anchor: four of these happened in 2005 and others in 2007. In five of the eight cases, the ship was hijacked, given the possibility of deploying evasive manoeuvres being reduced if the ship is at anchor.

We know the type of ship attacked in Somalia in 91% of the cases. Two facts stand out: the absence of tankers and the presence of dhows, which represent 12% of the ships attacked, while on average they represent 1%. The fact that these are vessels that are typical to the region, normally used for transporting freight between local ports, could explain their high level of presence in the Somalia region. On the other hand, the figure for fishing boats attacked in the maritime domain of Somalia that is reported reaches 12% of the total, above the average level, which is 7%. Six cargo boats contracted by the UN World Food Programme were attacked in Somalia between 2005 and 2010. Four of these were hijacked. Two were carrying freight at the time of their hijacking and they were robbed by the pirates.

In Somalia, on 89% of the occasions, outside help was requested when a pirate attack took place, and this was received in 21% of the cases. The degree of violence used by the pirates in the Somali maritime domain is greater than in other areas and the pirates' success rate remained quite steady over the course of the years analysed: one in every two ships sailing within 200 miles of the Somali coast and that is attacked by pirates will be hijacked. Barely 13% of the ships attacked receive help, although 60%

of these were liberated thanks to this.

3.2.3. Red Sea

9% of the total number of incident attributed to Somali pirates was reported in this region. 83% of the attacks took place between 2009 and 2011. Most of the attacks happen in the southern part of the Red Sea: the most northerly attack reported was in the area of Port Sudan, at the 19º 38' N latitude. 50% of the pirate attacks take place in just three months, between June and August, a period in which the influence of the monsoons stops attacks being perpetrated in the Indian Ocean. The same reason, but in a converse manner, can be found in the circumstance that between September and November, when the effect of the monsoons was diluted, pirate attacks in the Red Sea represent 14% of the total -as compared to the average of 29%-.

Unlike other regions, the attacks in the Red Sea area are spread out in quite a proportional manner between day and night. The fact of an above-average number of launches being involved stands out. There is also the fact that incidents with six or more people per launch add up to 55% of the total, as compared to the average figure of 34%. This greater profusion of alleged launches and pirates is due to the fact that, in some cases, pirates are confused with the launches that carry out fishing or smuggling tasks.

The Red Sea is one of the few areas of operations of Somali pirates where, apparently, a time can clearly be established in which the presence of grenade-launchers is seen to occur from. This was on May 31, 2009, when the *Stolt Strength* tanker was attacked not just with automatic weapons, as had occurred in previous attacks reported in the Red Sea since 2005, but also with grenade-launchers. From that time, the presence of this type of weapon became increasingly more common.

The vessels attacked in the Red Sea received help in 11% of the cases, a figure that is below the average value of 25%. One in every four ships was struck by shots; but in recent years, violence has been increasing. While, in 2010, shooting took place in 26% of the attacks in the Red Sea area, this figure grew to 38% during 2011. However, no personal injuries were reported. Of the 111 attacks reported, only two ended in a hijacking. Four ships were boarded in 2011, but the fact that the crews locked themselves away in a safe area meant that the pirates had to abandon the ship. The average success rate is 5%, one of the lowest of all of the regions analysed.

3.2.4. Rest of the Indian Ocean

We have referred to the Indian Ocean as being the maritime space that is not included in any of the maritime domains of the area of operations of Somali pirates. In the

period analysed, 26% of the total number of attacks attributed to Somali pirates have been reported there. 81% of the attacks took place between 2009 and 2011, while 70% occur in the seasons in which the monsoons are not present (from March to May and from September to November). Three different time zones cross the Indian Ocean region, although most of the attacks are concentrated in the middle zone; that is to say, in the UTC+4 time zone. The pirates deployed their activity during all of the hours in which there was sunlight, but no particular time of day stands out. On average, 65% of the attacks asked for outside help, below the average figure (80%). Perhaps this piece of data establishes a correlation with the fact that a large part of this region is far away from anywhere, as compared to the usual area patrolled by military units. This leads to fewer requests for help, as there is less hope of receiving it. The data on the degree of help received is clearly below the average figure, and it barely reaches 11% of the cases.

A considerable increase in the level of violence used by the pirates since 2008 is recorded, in an upward trend that reached its height in 2011, when shooting took place in 74% of the attacks. The pressure to manage to be able to hijack a ship may lead to more violence being used in order to get the crew to stop the vessel. Consequently, more material damage occurs in the Indian Ocean than in other regions. No personal injury was reported in the Indian Ocean between 2005 and 2007, The 6 deaths reported in 2009 (one captain and five pirates) were people who lost their lives as a result of two rescue operations, deployed with military units, just three days apart.

The success rate of the pirates in the Indian Ocean remained relatively stable over the course of the years analysed, with figures of around 14%, which are below average. Of the 66 hijacks occurring in the Indian Ocean, help was sent in 22 cases and it was possible to liberate the vessel in 9 cases. The duration of the attacks in region is longer than the average time. 52% of the attacks lasted for at least an hour –as compared to 33% for the average; 24% of the attacks were prolonged for two hours or more, when the average is 16%. We can deduce from these data that the pirates in the Indian Ocean have more time to prolong their attacks. Probably, this is due to the possibility of the ship under attack receiving help is lower.

3.2.5. The Seychelles

The Seychelles archipelago has suffered from the presence of pirates since 2008. 63% of the attacks were concentrated during the course of 2009. This is most likely due to the increase in the military presence in the Gulf of Aden, which meant that pirate activity moved southwards. The lower number of the attacks occurring in the Seychelles since 2010 is chiefly due to the pirate activity transferring eastwards, closer to India and the Maldives. The influence of the monsoons in the Seychelles limits the possibility of pirate attacks. From December to February and from June to August: only 6% of attacks are reported in those critical months.

A higher incidence of the attacks is recorded at both the start of the morning, from

5 to 8 o'clock, and in the afternoon, from 2 to 5 pm. The first night-time incident in the Seychelles took place on April 6, 2009, at 3 in the morning (local time), as a result of which the *Win Far 161* Taiwanese fishing boat was hijacked, and this was used as a mother ship later on. Attacks on fishing boats represent 22% of the total, which is very much higher than the average, (7%). This can be explained by the fact that fishing and its associated activities constitute around 15% of the formal employment of the archipelago[5].

No attacks in the Seychelles region that were launched from four or more boats have been reported, a trend similar to that recorded in the Indian Ocean region. Outside help was requested in 79% of the attacks, a figure similar to the average one. Although the help received in the Seychelles is less than the average figure, it was clearly above this in 2011: 33% as compared to an average of 19%. In the Seychelles, 59% of the vessels attacked suffered damage as a result of shooting, well above the average (27%). In the same way as happens in the Indian Ocean region, the degree of violence used in the Seychelles is higher than average, and so is the level of material damage caused. As regards personal injury, one incident was reported in 2011 in which one seaman and two pirates were injured and another pirate died as a consequence of a rescue operation. 17 ships were hijacked in the Seychelles between 2008 and 2011. 33% of the total of the hijacking occurred at night, and a further 50% in the in the early hours of the day, which represents a significant variation as contrasted with the usual pattern of Somali attacks.

3.2.6. Rest of the regions

Pirate attacks have also been reported in Kenya, Tanzania, Yemen, Iran, Oman, India, Pakistan, the Maldives, Madagascar, Mozambique, Mauritius and Comoros and the French territories of Mayotte and Tromelin Island. The number of incidents reported in most of these areas is small and, very often, the dates of the attacks are concentrated between 2009 and 2011. Hence, we will only emphasise the aspects that we reckon are most notable.

Kenya underwent a significant increase in pirate attacks in 2010, the year in which 60% of all of those reported in its territory happened. Night-time attacks represent a percentage higher than the average, given that they add up to 26% of the total as compared to the 16% average for all of the regions. Five boats were hijacked in Kenya.

28 pirates attacks took place in Tanzania (in 2007, 2010 and 2011), although 92% have occurred in the last two years. 82% of pirate attacks are concentrated in the months in which the monsoons have less influence in the region. 14% of the attacks happened in June and December, when the weather conditions are less favourable to

5   SEYCHELLES FISHING AUTHORITY. "Annual Report". Mahe; 2006, p. 4.

pirate activity but, at most, they occurred 80 miles from the coast. We can highlight the fact that nearly half of the incidents took place in the middle of the night. In Tanzania, 5 ships were hijacked in 2010, and a sixth one in 2011. Three out of the five hijackings that we know about occurred during the night.

In Oman, Somali pirates have carried out 59 attacks since 2009, but 67% of these occurred in 2011. In our opinion, some incidents that happened in previous years could also be considered to be typical attacks by Somalia groups. Unlike the other regions analysed, pirate activity in Oman does not usually decrease in the monsoon season, but rather quite the contrary happens. Thus, 39% of the attacks are reported between December and February, and a further 13% between June and August. This phenomenon is owing the fact that the areas nearest the coast are not as affected by bad weather when the monsoons come. 45% of the vessels attacked in 2010 received outside help, a figure that fell to 16% in the following year. In 2010 we can highlight the high percentage of damage to shipping, 66% of the cases, which is well above average (24%). In one rescue operation, launched to liberate the American yacht *Quest*, the pirates killed the four crew members. In Oman, 17 vessels were hijacked, which represents a 31% success rate, a figure that is higher than the average one. It should be noted that one of the hijackings took place in the territorial waters whilst the ship was at anchor three miles from Salalah. This shows a significant change in the modus operandi of the Somali pirates, who usually attack ships while they are sailing.

In the region that we have called Yemen, there were 27 pirate attacks between 2007 and 2011, 55% of the cases in the final two years of the series. 70% of the incidents took place in periods in which the monsoons had less influence. The percentage of occasions on which help was received was 20% in 2009; it fell to 13% in 2010 and it dropped to 0% in 2011. These data are well below average. In Yemen, the pirates are more violent than in other regions. Between 2009 and 2011, the number of cases in which shooting took place is 67%, but no personal injuries were reported. Two ships were hijacked in by pirates in 2010, and a further two in 2011.

Other Somalia pirate attacks have taken place in India (12), Iran (11), the Comoros (7), Mozambique (5), Madagascar (3), Mayotte (3), the Maldives (2) Mauritius (2) and the Tromelin Islands (1). As a result of all of these attacks, the Somali pirates managed to hijack seven ships. It is very significant that no hijacking took place in this region in 2011.

The last maritime domain visited by the pirates was Pakistan where four pirate attacks happened in 2011, two of which ended with the ships being hijacked. On March 24th of that very same year, two ships were attacked in Pakistan, probably by the same pirate group. The attacks occurred 30 miles out, with a difference of four hours between them.

4. Discussion about the results

4.1. The Somali pirates' capacity for adaptation

The pressure of the international fleet in the Gulf of Aden led to a dual phenomenon: first, the attacks were concentrated in the security corridor and later on, when the military presence there had shown how effective it is. This meant that the pirate activity moved to the eastern and western ends of the Gulf, going into the waters of the Red Sea, to the west and beyond the isle of Socotra to the east (into the region that we have called Yemen). Most of the attacks in Yemen were reported along the length of an imaginary line that seems to coincide with the approach that the ships make to the security corridor (or when they leave it), so as to become part of the convoys that sail through the Gulf.

The movement of pirate activity towards the Indian Ocean has also been noted, compelling the international bodies that monitor piracy to recommend that sailing is done increasingly far from the Somali coast. Nowadays, the Somali pirates have managed to reach almost any part of the western Indian Ocean, between the coast of Somalia and India, reaching as far north as Iran and as far south as Mozambique. It has been the military pressure suffered by the pirates in the Gulf of Aden that has brought about this change in their modus operandi and meant they sail hundreds of miles from the coast in order to launch their attacks.

The Somali pirate groups seems to combine action at high sea, during the months in which the monsoons are less perceptible, from March to May and from September to November, deploying their activity in areas that are largely safe from the effects of the weather throughout the year: the Red Sea, the Gulf of Aden or the coastal strip of Oman. It seems clear that the pirates adapt their criminal activity to the state of the sea.

The pirates seem to have adjusted their strategy to the presence of the security corridors. They began a series of night-time attacks in May 2009, which had not been common up to that time. Given the lack of results they launched other coordinated ones, at the same time and against various ships, with the aim of mocking the military presence.

The Somali maritime domain is a region of pirate activity in decline. While in previous year the attacks had been carried out from skiffs that sailed out from the coast, the utilisation of mother ships as high seas operations platforms has enabled the pirates to spread their activities for hundreds of miles along the coast. This fact, along with the situation of the notable reduction in sailing in the areas near the Somali coast, because of the pirates' particular actions, has meant that the attacks in the Somalia area have been reduced, but they have not definitively disappeared.

In 2010, the Indian Ocean exceeded the Gulf of Aden as the most productive area for Somali pirates for the first time. In that year, 31% of all of the hijacks took place in the Indian Ocean. This turning point was confirmed in 2011: 51% of all of the hijacks took place in the Indian Ocean.

The highest number of occasions in which help was received was in 2008, when over 80% of the attacks were concentrated in the Gulf of Aden. The creation of a maritime security corridor means that ships could cross it with a degree of protection that had previously not existed. It is no coincidence that all of the vessels that received help in 2008 were ploughing through the waters of the Gulf of Aden. Neither is it a coincidence that on the 60 occasions on which help was received in that particular year, no fewer than 48 (80%) took place from the time at which the security corridor was set up, that is to say, in little more than four months.

Later on, they moved towards other regions, and the Gulf of Aden has had a diminishing role. The strategic objective of the pirates seems clear. Given that the patrols deployed by the international naval presence are achieving their aim of reducing the success rate of the pirates in that region, the attackers sought to make the air and sea forces to widen their radius of action as far as possible. It is hoped that by doing this that the military units would find it harder to carry out a swift and effective response to their attacks, and that if military assistance did come, it would do so with the longest possible delay. The clear fall in the number of occasions on which an attacked ship has received help, since 2009, seems to confirm the success of this strategy.

It has been common in the Read Sea area to report incidents with a number of skiffs that is higher than the average. An attack with up to 25 people on board against a ship has been reported. It is likely that the number of incidents reported in the area immediately surrounding the Bab el Mandeb strait, where a higher number of launches and people occupying them is reported, are false alarms, caused by the significant role that smuggling plays there.

The main reason why Kenya has become an attractive area for piracy seems to be due to the agreements that Nairobi had signed with various countries and organisations, such as the European Union, Canada, the United Kingdom and China, being abandoned. The aim of this measure was to take over the prosecution of the pirates arrested by the military units of those countries. These agreements had meant that the ships of the signatory States had driven the pirates towards Mombasa. In practice, it meant that a warship from the international naval fleet was very often found spending several days in that port, until the processes of handing over the arrested pirates had been completed. Probably, this frequent traffic of warships towards Mombasa was a deterrence factor in making the pirates stop going into the maritime domain of Kenya. In fact, when the cancellation of the agreements had just been announced by Nairobi on September 30, 2010, pirate incidents then began happening in its waters, to the point at which 10 of the 12 attacks occurring in 2010 took place in the final quarter. This phenomenon could have affected Tanzania, Kenya's neighbour, as well. The latter country has also suffered pirate attacks since that time.

One significant case, which gave rise to a significant variation in the pattern of attacks of the Somali pirates, was the hijacking of the Malayan container ship, *Albedo,* by means of the use of a mother ship, a petrol tanker sailing under the Maltese flag, with the name of *Polar*, which is not very common. The *Polar* had been hijacked on

October 30th, 2010, some 800 miles from the Horn of Africa. It was used as a platform for the subsequent hijacking of the *Albedo,* on November 26th of that particular year. In this way, the pirates were altering their usual modus operandi, based upon launching their attacks from fishing boats (dhows) and they generated a new threat, since an attack could now come from any merchant ship.

The incident that occurred on February 2, 2011, should also be highlighted. After failing to hijack a tanker ship, and finding themselves with the presence of a military detachment that was coming to detain them, the pirates threatened to kill the crew that were held hostage on the mother ship if the military came near.

Another interesting case was the capture of the fishing boat Vega 5, in the territorial waters of Mozambique, in December 2010. This was a ship sailing under the Mozambique flag and with a captain from the same country and that had Spanish boatswains. Both of the Spanish citizens were taken to land, with the aim of demanding a ransom for their release. The fishing boat, with the rest of its crew sill on board, was also utilised as a mother ship. This situation went on until March 14, 2011, when a military operation by the Indian navy ended with the sinking of the Vega 5, the arrest of the 61 pirates, the release of the 13 crew members and the death of a further nine of them[6]. Curiously, the action by the Indian Navy seemed to push the activity of the pirates towards the north in the weeks following this. They headed for the Pakistani coast, a country whose naval forces were suffering from a lack of resources[7]. The two Spaniards who had been held were released in May 2011 after a ransom of 5 million dollars had been paid, according to the pirates themselves[8].

The displacement of the pirate activity, far from the Gulf of Aden and from Somalia, has forced the international naval fleet to extend its area of action. This has had consequences that are difficult to make proportional to the area they have to protect. Given the impossibility of assembling a similar fleet, the ship-owners opted for vessels with armed security guards. According to our data, 35% of the ships that were attacked by Somali pirates in 2011 had these guards on board them. The fact that no ship with such staff on board has been hijacked is a strong incentive for the ship-owners and this explains the increase in the business of private security companies dedicated to providing maritime security services.

4.2. Somali piracy as a threat to international security

6   "La Marina india libera al 'Vega 5' pero los dos gallegos siguen cautivos en tierra", El Mundo, 14 de marzo de 2011; http://www.elmundo.es/elmundo/2011/03/14/galicia/1300100477.html

7   "Indian Navy nets dozens of pirates", Safety at Sea International, may 2011, p. 15.

8   "Liberan a los dos marineros gallegos del «Vega 5» secuestrado en Somalia", ABC, May15, 2011.

Somali piracy has moved on to an advanced phase. It is not now run by a small group of impoverished Somali fishermen[9]. Now they have mother ships, negotiators, spokesmen, accountants, investors and logistics supervisors and they probably also have the support of the Somali diaspora in countries such as the United Kingdom or Canada. They are capable of bribing the local authorities and we should not discount the existence of some type of network of informers working from the ports that tell them about the most vulnerable targets. Entire Somali towns see how their economies depend on the hijacking of ships and the payment of the ransoms.

Piracy in Somalia is carried on within the context of a civil war, which has devastated the country for twenty years. We cannot discount the fact that part of the ransoms paid to the pirates are used to finance this and even that the money is sent to terrorist groups that are affiliated with Al Qaeda, such as Al Shabab. Identifying and locating the pirates when they are out at sea is a complicated task and it requires having a broad panoply of resources available. The range from and include the air forces of the maritime patrol and unmanned planes (UAVs) to satellites. It is not easy to confront them in a proportional and discerning manner either. Not just when they have managed to hijack a ship and they are holding its crew hostage, but also at the time at which once the ransom has been paid they camouflage themselves amongst the local population that is waiting for them on land so that they can avoid being captured. Moreover, the field of battle spans over two million square miles, where pirates and fishermen, which use similar vessels, are often jumbled together, which makes it hard to differentiate between them.

On the other hand, the national legislation of some of the countries involved in repressing piracy does not even contain the offence of piracy. Or, if they do contain this, the authorities prefer to avoid becoming involved in a legal process that does not always guarantee the desired result, because collecting evidence and witness statements means that part of the military officers concerned have to deal with these task and they even have to go back to their countries to give a testimony. In quite a few countries, the legislation requires an arrested person to be placed at the disposal of the court in a very short period (24 or 48 hours) with the logistics problems that such an obligation causes in a maritime context in which a warship is thousands of miles from the nearest coast. These facts help the pirates to get released when they are on land, after their ships have been destroyed and their weapons decommissioned, with the underlying message that this sends to the pirates.

All of the facts mean that very often it is not possible to obtain the best performance from the military capabilities of the international air and sea deployment, despite their obvious technological and weapons superiority. In short, the conflict that the Somali maritime piracy generates does not seem to have a short-term solution and therefore, unless the security situation on land gets significantly better, we can predict that this

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9   LENNOX, Patrick. "Contemporary Piracy off the Horn of Africa". Calgary: Canadian Defence & Foreign Affairs Institute, 2008, p. 10.

is going to last for some time.

The greater degree of coordination of the attacks amongst diverse pirate groups or the development of a more complex tactic of coordinated actions by a pirate group are symptoms that we may consider in making a qualitative leap in the pirates' combat techniques. To some extent, the stages of the classic outline of guerrillas-fighting procedures, states that when an insurgent manages to go from simply occupying a piece of land that barely has any surveillance, and then moves to fighting with tactics using simultaneous strikes at different points, some of these serving as a distraction, is a way of successfully taking on a conventional army that is much more superior in terms of resources and weapons. In the classic outline of fighting against insurgency, taking on the insurgent in its own terrain in response to its attacks within action-reaction dynamic, is usually less effective than taking initiatives and directly attacking its bases, as was confirmed by the elimination of the pirate bases by the Islamic Courts in 2006. However, the withdrawal of the United States (and subsequently of the UNO) from Somalia in the 1990's entailed a significant reminder for the international community about the risks of multi-national intervention in Somali terrain.

5. Conclusions

We consider that the methodology that is based on identifying and analysing Somali pirate incidents, in accordance with the proposed categories, has proved useful in understanding the modus operandi of Somali piracy. This enables us to suggest that this methodology should be used to study other cases of maritime piracy that have appeared in recent years, for example in the Gulf of Aden. This would facilitate the undertaking of comparative studies that would make it possible to make progress in understanding modern sea piracy.

As regards the study of the evolution of Somali piracy, it is very interesting to look at the consequences that the changes in diverse elements and factors may produce. The key question is whether piracy will disappear if the internal conditions of Somalia change. Or whether, on the other hand, this is an activity that will continue over time and that will adapt itself to the evolution of the country in the coming years. Given that the two main factors that make it possible for Somali piracy to carry on are the payment of the ransoms and the corruption amongst local authorities, it is appropriate to go into greater depth in investigating both of these variables. On the other hand, it is considered necessary to analyse the evolution of unlawful fishing by foreign fleets within the Somali maritime domain, as well as the effect this has on the investigation and prosecution of other acts such as dumping toxic products in the waters near Somalia.

Similarly, in relation to the regional context, it is worth going into greater detail

about the effect of Somali piracy on the economies of neighbouring countries (tourism in Kenya and the Seychelles, fishing in Mozambique, etc.) and aspects related to the degree of security that a change in the regional context may entail.

In relation to international terrorism, it seems opportune to continue with the study of the contacts that have recently been initiated between the pirates and Al Shabab, so as to ascertain whether this is merely a relationship that seeks to gain mutual economic benefit or it could give rise to some of the pirate leaders becoming more actively involved in the internal Somali conflict, even by means of them participating through financing terrorist activities in neighbouring countries in the region.

Lastly, we consider that it is also necessary to study whether, if the use of security surveillance staff spreads, the deterrence effect of this means that merchant ships will be hijacked when companies are unable to hire them as they do not have sufficient financial capacity to do this. This phenomenon could have a bearing on the duration of the hijacks, which could become prolonged, as has already happened in some cases in which the owner or the country of origin of the crew have not felt that they can meet the ransom demand payment. A second consequence could consist of an increase in the scale of the violence used by the pirates, if they feel they are unable to hijack ships. This is why it is necessary to investigate whether the confrontations between pirates and security teams are going to rise; or whether the exchanges of shooting end up causing fatalities in both groups. It is likely that the shipping companies and owners that have fewer economic resources, which cannot assume the cost of hiring private security, will decide to get their boats to sail around the African continent, avoiding sailing in high-risk waters. This fact could economically benefit the strongest shipping companies and reduce competition in the sector. Similarly, we should investigate whether this phenomenon could lead to some kind of extra cost in the price of the products transported and the impact of this on the companies affected and on the end consumer.

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