

Are we winning the war with the pirates?

Nebojša Nikolić¹, Miloš Pavletić¹, Eduard Missoni²

¹Medical Centre for Occupational Health, Rijeka, Croatia

²Faculty of Transport and Traffic Sciences, Zagreb, Croatia

INTRODUCTION

Piracy and armed robbery against ships is not only a part of maritime history, it is still present on the seas all over the world. A study conducted by the IMB noted that the number of reported piracy attacks worldwide continued and a total of 297 incidents of piracy and armed robbery against ships were reported in 2012 [1]. The last time piracy figures crossed 400 incidents was in 2003 and then in 2009 when the problem escalated and stayed above that level until 2011 [2, 3]. Blurred by the often unbalanced and sensationalistic approach by the media, it is difficult to get a realistic picture of the dangers on board. The mortality rate for accidents occurring at work on board is 53 per 100,000 seafarer-years, while the suicide rate is 1.3 per 100,000 seafarer-years [4]. Homicide rates are highest for seafarers in Asia where there is the highest piracy problem. Taken globally from piracy violence rates, the risk of being killed on board by pirates as a merchant mariner is 2.05 per 100,000 seafarer-years [5].

Despite numerous diplomatic, military, and other initiatives by many governments and governmental agencies, particularly in the Indian Ocean, and the protective measures and other actions adopted by ship-owners, ship-managers, and their representatives, ships are regularly attacked and seafarers and passengers put at risk as they go about their legitimate business in international waters.

CURRENT STATE OF PIRACY ACTIVITY AND THEIR MODES OF ACTION

Pirate attacks against vessels in East and West Africa accounted for the majority of world attacks in 2012. Of the 297 attacks reported to the IMB in 2012, 104 attacks took place off Somalia on the east coast and in the Gulf of Guinea on the west coast of Africa. The report showed a slight drop in the total number of recorded incidents of piracy and armed robbery worldwide, comparing the 297 recorded in-

cidents of piracy and armed robbery in 2012 to 445 in 2010 and 439 in 2011. The falling numbers come after four consecutive years of increased piracy and armed robbery worldwide (239 incidents reported in 2006, 263 in 2007, 293 in 2008, and 406 incidents reported in 2009) [2, 3]. In 2012, 28 vessels were hijacked, 174 vessels boarded, 28 vessels fired upon, and 67 vessels reported attempted attacks. A total of 585 crewmembers were taken hostage, 26 kidnapped, and six killed as a direct result of the incidents [1].

Somali pirates remain the greatest threat and they account for approximately 25% of all registered attacks. Somali pirate attacks are predominantly concentrated within the cross roads of the Arabian Sea and the Gulf of Aden. From January to December 2012 the IMB Piracy Reporting Centre (PRC) received a total of 75 incidents attributed to Somali pirates. These incidents continue to threaten an extended geographical region – from the southern part of the Red Sea in the west to 76° East longitude and beyond in the east. Incidents in the past have also been reported off the coast of Oman/Arabian Sea in the north extending southward to 22° South. A total of 250 seafarers were taken hostage, one injured, and two killed. The east and south coast of Somalia including the Arabian Sea recorded 49 attacks and further 13 in the southern Red Sea. The first hijacking by Somali pirates of an anchored vessel from within the territorial waters of a foreign State – namely, Oman – were reported in 2011 [2]. In this period 14 vessels were hijacked. Vessels attacked included General Cargo, Bulk Carrier, all types of Tankers, Ro-Ro, Container Carrier, Fishing Vessels, Sailing Yachts, Dhows, and Tugboats [1]. There was some speculation that Somali pirates are using their worldwide Diaspora for networking and tipping off but the opportunistic character of the attacks and a clear lack of evidence is making this highly improbable. Vessels attacked off Somalia are randomly selected and are not specifically targeted for any reason other than they are easy to board [6]. Pirates

✉ Dr. Nebojša Nikolić, Riva Boduli 1, 51000 Rijeka, Croatia, e-mail: travel-medicina@ri.htnet.hr

simply patrol an area, wait for the target of opportunity, and attempt to board [7]. Most of the attacks involve the use of weapons — mainly rifles and rocket propelled grenades (RPG-s), which is a cause of great concern as it poses a serious threat not only for injury and death of seafarers but also to the ship, cargo, passengers, and environment.

Conditions currently prevailing in Somalia provided a fertile breeding ground for the establishment of modern-day Somali piracy and clearly the present situation is the consequence of state failure [8]. With the downfall of the military regime in 1991 Somalia has fallen into chaos and lawlessness while the law and order as we know it, as a function of government, ceased to exist [9]. With the lost of the central state hundreds of thousands of nationals lost their jobs and the unemployment rate rose over 90% [10]. Somali pirates are integrated into Somali society, and by the majority of Somalis in the main pirate areas, piracy is looked upon more as a business opportunity than a crime. They are organised along clan lines and considered as “bread makers” for the local community and often seen as some sort of “Robin hood” figures. Modern Somali piracy originated decades ago as a defensive tactic by fishermen against overfishing by developed nations that were taking advantage of the power vacuum following the demise of the Barre regime and of any kind of government control of local waters. Somali fishermen would stop foreign fishing vessels and demand reparations, which could take the form of new nets or other equipment. Money was first offered by fishing boat captains, presumably seeking an easier solution. Very quickly various clan leaders saw this as an inviting potential for revenue raising, and so the more aggressive style of piracy started and expanded to the level we are witnessing today [8]. Of course, the reasons from two decades ago are lost and today the clear attraction of it is the money and the possibility to earn 67–157 times more income than is possible by a legitimate job in Somalia today [11]. Piracy has become big business and the pirates, originally Somali fishermen no longer able to earn a livelihood from fishing, now include criminal elements from many nations. Their main business aim is the ransom only, not to destroy the ship or harm the crew. A potential link with terrorism, especially in Somalia where the Al-Shabab organisation is active, could also become a problem [12]. If pirates start to use the ships they capture as a means for transporting terrorism, this would certainly raise the bar to a new level. Fortunately, at the moment this does not seem to be likely as Islamist movements find it difficult to make headway in Somalia, where the intrusion of all foreigners — even Muslims — is looked upon with suspicion. Although there have been connections between the Islamists and the pirates, these have been of a parochial nature, with no inclination on the part of the Somali pirates to take up the cudgels of Jihad. How-

ever, many experts say there is little hard evidence to substantiate such a link [13]. At the moment the conditions prevailing in Somalia do not give any proof that there are obvious links between the pirates and terrorism, at least for the time being, but also there is a fact that the link between piracy and terrorism is possible [14].

In recent years the pirates typically go to sea in long, narrow, roughly built open boats of 30 to 40 feet in length with an inboard diesel towing two smaller open fibreglass boats fitted with high-powered outboards capable of speeds up to 25 knots. They carry enough fuel on board to achieve a range exceeding 1,000 miles and can stay at sea for as much as 30 days. Sometimes a pirate vessel will outrun its fuel supply and the crew perish from lack of food and water. If a ship has not been taken by the end of their deployment the pirates might become desperate and are liable to attack anything including yachts, irrespective of their value, simply to survive and return to shore [15]. Today in the region of Somalia and the Indian ocean in a typical pirate attack, small high speed open boats deploy from a mother ship, often a pirated fishing vessel or dhow. Commonly two or more of these small high speed open boats are used in attacks, often approaching from either quarter of the intended target firing AK47s or RPGs to intimidate the crew. Ships slower than theirs are usually approached from the stern side and then aluminium ladders are used to reach the deck. This is the technique primarily used in the Puntland area while in Hoboyo (south Somalia) they use grappling hooks [16]. For faster ships that can outrun them, like cruise ships, they use a different tactic: one boat is attacking from the bow side forcing ship to make an evasive manoeuvre that shortens the trajectory of the attacking boat that comes from behind and on the other side of the ship, allowing it to reach the ship and eventually place the ladders and reach the deck.

Attacks have increased in number and the area affected has increased as pirate tactics have evolved. Until 2012, year on year the numbers of attacks were up some 90% from 2010 to 2011. However, as deterrence and defensive measures on merchant shipping improve, the success rate has reduced to about 1 in 5, particularly in the Gulf of Aden [15]. This has caused the pirates to adapt their methods of operation and to range widely over the Somali Basin and far into the Indian Ocean, reaching as far south as the northern end of the Mozambique Channel. Activity has also been reported in the southern end of the Red Sea/Bab Al Mandeb area. Until relatively recently, piracy was restricted by the monsoon seasons, which made it difficult for them to operate from small skiffs in heavy weather. Pirates operate from very small craft, which limits their operation to moderate weather conditions [17]. Now, however, they have adapted and learnt that by using mother ships and operating in

well-organised groups (Pirate Action Groups or PAGs), they are able to operate over greater ranges, for longer periods, and through the NE monsoon, which is traditionally a favourable time for yachts making passage. This year attacks are continuing during the SW monsoon as well. Somewhat ironically the use of mother ships was something the pirates learned following naval attempts to “blockade” the Somali coast to stop them leaving the shore. Mother ships range from 300,000-ton super tankers to minor merchant vessels that have been pirated, but are more usually something smaller such as the Dhow which is traditional to the area and which might easily blend into fishing fleets. Just before Christmas 2010 a group of pirates seized a sailing yacht off the Seychelles and used that as a mother ship, which provided them the perfect cover to lure ships alongside who believed they were offering assistance to a distressed vessel [15]. The PAGs do not need to be able to operate the mother ships they pirate; they use the vessel’s crew to do that often treating them with extreme violence and keeping them in harsh conditions. Under the current rules of engagement governing action by the military, life cannot be put at risk. As a result, the pirates, who are now no more than organised criminal gangs, have learned the value of using captive crews as hostages. If a Naval warship draws close, the pirates simply point a gun at the head of a hostage and threaten to pull the trigger if the naval ship does not pull away. The naval forces have no choice but to comply. Interestingly, in the period of relative stability in Somalia, when the western countries tried to strengthen capacities of their Coast Guard, some of today’s pirates were actually trained by western contractors. Pirates in Somalia are now well equipped with satellite phones and GPS which are easily accessible on the market today and they often show a lot of seamanship.

Piracy is a global phenomenon and other seas are affected too. Although only 10 attacks in 2011 and 27 in 2012 were reported in Nigeria, due to underreporting it continues to be a piracy hotspot. The IMB states that they are aware of at least another 34 unreported incidents 2011 in Nigerian waters [2]. Pirates attacked, hijacked, and robbed vessels including kidnapping crews along the coast, rivers, anchorages, ports, and surrounding waters. While until a few years ago pirates in the Gulf of Guinea were attacking from a shore basis, recently they have started to use similar tactics with the use of mother vessels and to launch their attacks far from shore. Attacks have been reported up to 120 NM from the coast. In some incidents, pirates hijacked the vessels for several days, ransacked them and stealing part of the cargo, usually gas or oil [7]. It seems that the majority of oil companies operating in those waters prefer to settle the ransom discretely. Also, in 2011 a probable extension of

Nigerian piracy into neighbouring Benin included 20 incidents against tankers, eight of which were hijacked and had cargoes partly stolen. These attacks can be very dangerous and generally more violence is used in those waters, often resulting in injuries and deaths. In some incidents, pirates/robbers have fired at ships. Many tankers have been attacked and hijacked, pirates/robbers forced Masters to sail to unknown locations where the ships’ property and sometimes cargo has been stolen (gas, oil). In Togo: Lome – Attacks are increasing. Pirates in the area are well armed, violent, and dangerous. Attacks can occur at anchorages and off the coast, usually at night. Some attacks resulted in the vessel being hijacked for several days during which the vessel was ransacked and part of the cargo stolen (gas, oil). In Egypt attacks have been reported at anchorages in Suez and El Dekheila [7]. In South East Asia and the Indian Subcontinent, Indonesia has seen a rise in armed robbery for the second consecutive year. The incidents continue to be local and opportunistic, according to the IMB, and usually against anchored vessels. Pirates/robbers are normally armed with knives and/or machetes. Guns have also been reported on occasion. Pirates/robbers normally attack vessels during the night. When spotted and an alarm sounded, pirates/robbers usually abort the attack and move away. The 73 incidents were reported – up from 46 in 2011 – included 71 vessels boarded, and 47 crewmembers taken hostages. Attacks in the South China Sea fell from 13 in 2011 to two in 2012 [1]. Unfortunately the IMB report also noted the rise of piracy attacks in, until recently, the well-controlled Singapore Straits (11 attacks in 2011 and six in 2012). Thanks to the joint efforts of littoral states the once notorious Singapore Straits were until recently well-controlled and safe waters, but in 2011 a rise in the number of attacks was noted [2]. Pirates and robbers attack ships while underway or while anchored in the Straits. The Singapore Straits are one of the most important sea passages in international shipping connecting the Far East and Indian Ocean. Pirates are active in South America too, where 16 attacks were reported (in Haiti, Colombia, Costa Rica, Dominican Republic, Ecuador and Peru) [1, 7].

Piracy and armed robbery at sea are not only limited to the open sea and international waters; some ports under national jurisdiction are subject to attacks on ships being in their berth or approaching anchorage. Ports like Chitagong (Bangladesh), with 11 attacks in 2012, gained the reputation as the most dangerous places for ships, while in 2012 new notorious hotspots appeared on the map – the port of Belawan in Indonesia took the lead with 14 attacks. Ports in other regions of the world like Lome, Abidjan, and Lagos had more than three reported incidents in 2012 [1].

HOSTAGE PROBLEM

From time immemorial hostages have been captured and used as bargaining chips to achieve criminal, military, political, and religious ends. But no matter what the particular ideological, motivational, and/or organisational base, the intention of the captors was not to harm their hostages so much as to use them as bargaining tools without provoking a retaliatory backlash [15]. With the escalation of piracy in Africa, the pirates' aim has become to get the ransom by holding the ship and/or hostages on board. In 2011 Somali pirates held 1,206 people hostage. This number represented 561 people captured in 2011 and 645 people who were taken captive in 2010 and remained in pirate hands for some or all of 2011. There are 26 hostages that have been held for more than two years and 123 hostages that have been held for more than one year as of 31 May 2012. As of 31st December 2012 Somali pirates held 127 hostages [1]. The average period of time in captivity off Nigeria and Benin tends to be about ten days as compared to the average of eight months for Somali hijackings, which is 50% more than the 2010 average [1]. The risk of being subjected to violence and mistreatment increases with prolonged periods of captivity, including increased rates of assault and abuse, increased risk of disease and malnutrition, greater likelihood of giving up hope (for example, a hostage committed suicide in 2010 during a prolonged captivity), and being transferred from gang to gang [18]. The extent of the specific crimes committed during the period of captivity is difficult to quantify due to the limited amount of publicly available information. According to publicly available reports, 57% of hostages faced mistreatment at the hands of pirates. Also, 26% of hostages suffered abuse while 43% were used as human shields. According to the *The Human Cost of Somali Piracy 2011*, published last year, 3,863 seafarers were assaulted by pirates during the initial stages of an attack by firing weapons including assault rifles and RPGs. A total of 968 seafarers came in close contact with armed pirates aboard their vessels, and 413 (44%) of those were rescued from citadels by naval forces after waiting for hours (and in some cases days), often as pirates fought to breach the safe room. In total 35 hostages died in 2011: eight were killed by pirates during the attack or after being taken captive, eight died from disease or malnutrition caused by lack of access to adequate food, water, and medical aid, and 19 died during rescue efforts by naval vessels or whilst attempting to escape, the majority of which were being used as human shields by the pirates [18]. It is likely that these figures underestimate the total number of pirate casualties because they do not include those lost at sea or killed during encounters with private security. This excludes many of those killed by other pirates in other piracy-infested waters

like the Gulf of Guinea where the attacks are considerably more violent.

According to the reports of released hostages, those held by Somali pirates are subjected to a range of violent crimes. In addition to the risks associated with the initial assault, all hostages faced the risk of violence day upon day and a range of inhumane treatment in violation of their basic human rights. The reports indicate that the living, hygiene, and sanitary conditions onboard the hijacked ships declined rapidly and remained deplorable throughout captivity. All crews were subject to restricted freedom of movement and privacy in addition to living under constant threat of physical and psychological abuse. At least three seafarers from the 23 reporting vessels died after release as a direct result of their treatment during captivity. The main triggers of physical and psychological abuse appeared to be: pirates' basic ignorance in the workings of a ship, a break down or slow progress in negotiations, disagreements among the hostages, and better treatment to some crews in exchange for information on the others. Half of all hostages in 2011 were subject to moderate abuse by captors including punching, slapping, or pushing hostages; 10% of hostages suffered severe abuse which included being tied up in the sun for hours, being locked in a freezer, or having fingernails pulled out with pliers [18]. The report does not take into account the stress, fears, and the day-to-day deterioration in standards of living of the family members of the captive crews. Pirates inflict psychological abuse along with physical mistreatment as they seek to terrorise the hostages, their families, and the ship owners in order to speed up the ransom negotiations. They may also do it to break down solidarity between crewmembers. This abuse can be quite severe, including threats of execution or acting out mock executions, attempts to divide the crew along existing lines of division, and repeated claims that the hostages have been abandoned and will never go home.

Due to the global character of the business and international crews on board, studies on seamen being held in hostage situations are very rare. In a study on a Norwegian crew being held hostage in Libya in 1984 for 67 days and subjected to psychological and physical torture, the immediate reactions to the extreme stress were fear, depression, and rage. Within the first few days of imprisonment one seaman had been murdered, another had been abducted and was believed to be dead, and a third had been severely physically maltreated. Shortly after their release, all the seamen underwent thorough medical examinations. Six of them suffered from clear-cut post-traumatic stress disorder (PTSD) and one more seaman developed the disorder two months later. In spite of comprehensive treatment, the same seven sailors, or 54% of the crew, still suffered from post-trauma-

tic stress disorder six months after their release [19]. To measure the impact of such events, recently a short study was presented at the International Symposium on Maritime Health in Odessa. It was conducted on the health consequences among 105 seafarers from four ships that were victims of a piracy attack and held captive for between three to nine months. Thorough medical examination including psychological assessment was conducted on the victims. The results show that most victims had a health consequence from the attack and that they were either new conditions or exacerbation of existing ones. The occurrence and severity of new/exacerbated conditions was directly related to the duration of trauma. Most health consequences were musculoskeletal (27%) or psychological (depression 15%, secondary insomnia 15%, mixed anxiety depression 5%, obsessive compulsive disorder 4%, PTSD 1%, headaches 2%). All related to existing conditions and attack duration. As the diagnostic tools and criteria in that study were not stated, there is a possibility that some of the psychological or even musculoskeletal reactions are actually part of PTSD syndrome [11].

Nearly all hostages are, in some form, affected psychologically. While many are able to cope after they were released, some need more help [18]. The full psychological impact of such events may only be fully realised after a hostage has reached home or through the passage of time. Events during the pre-crisis period before an incident can directly influence reactions experienced by those involved during the incident and in the immediate aftermath [20]. The impacts of pirates' abuse does not necessarily end upon hostages' release, but can cause varying degrees of long-term distress. While there is no significant body of research that tracks the impact of piracy on seafarers, existing research on violent crime strongly suggests that some of the people exposed to piracy will have lasting problems [18]. Psychologically, hostage situations raise a number of general matters, and an abundance of descriptive reports have been written about hostages [21–25]. The least affected are both the aggressive criminal psychopaths and their polar opposites – the extraordinarily mature [26]. This raises a very interesting question to be researched: are the seafarers more resilient, as some studies show that they enter into their occupation with more risk markers, like contact with drugs, police, alcohol, and unprotected sex, than the workers in other occupations [27].

CURRENT STATE OF ANTI-PIRACY ACTIVITIES

Several organisations have developed best practice guidelines for defending ships from piracy, and the majority of big shipping companies either use those or develop their own using those as a model. In the cruise industry, already known for strict security measures, all companies have developed anti-piracy procedures and some are employing

armed guards (Privately Contracted Armed Security Personnel – PCASP). Even the International Sailing Federation regularly updates its guidelines for yachtsman sailing in dangerous waters.

On 1 February 2009, the Maritime Security Centre – Horn of Africa (MSCHOA) (www.mschoa.org) established the Internationally Recommended Transit Corridor (IRTC) [7]. The IRTC has two lanes, each 5 NM wide and a separation zone between them 2 NM wide. To all intents and purposes it operates as a Traffic Separation Scheme (TSS) although formally it does not have that status. The MSCHOA liaises with anti-piracy patrols being conducted by warships from several nations in the area, and the patrols operate mainly in the Gulf of Aden and the Somali Basin but may operate anywhere within the area and provide surveillance and support as far as possible. The UKMTO (UK Maritime Trade Organisation) in Dubai is principally for the protection of merchant vessels while US-flagged vessels may wish to contact the MARLO (Maritime Liaison Office) (USN) Bahrain, who will provide a similar service [17]. Ships/owners are advised to register their details on the MSCHOA website www.mschoa.org and obtain further information regarding the close support protection details for ships transiting the Gulf of Aden. Ships are encouraged to conduct their passage through the IRTC in groups based on their transit speed of 10, 12, 14, 16, and 18 knots [7]. As in that region pirates are less likely to launch attacks in the dark, ships try to pass through the IRTC during the hours of darkness. Basically the same rules apply for tourist sailing; however, no guarantee whatever can be offered as to the safe transit of any yacht through these waters. A yacht which, despite the risks, decides to make a passage should inform the UKMTO Dubai and MSCHOA of its plans with as much notice as possible and provide information on its movements preferably by email but alternatively by telephone. When a yacht registers, the MSCHOA will email piracy alerts until it is clear of the area. MSCHOA will pass details of yachts to patrolling warships. During its passage a yacht should monitor VHF 16 and VHF 8 and report by the means and at the intervals advised by the MSCHOA, or by a patrolling warship. The yacht should plan to conduct as much of this part of the passage as possible at night. If the convoy approach (several yachts sailing together) is to be followed it is suggested that there is a limit of no more than five vessels in any one convoy. This is because vessels will need to keep close to one another if they are to offer any protection through numbers, and close station-keeping for the duration of the voyage through the GoA may prove a strain, particularly if short-handed [17]. There is only one advantage for the yachts, which is turned into a disadvantage if spotted. Even during the day, the pirates' visual horizon is less than five miles; they will see a merchant ship long before they see a yacht, but that also means that

when they spot it, the time between first sighting a pirate and the commencement of an attack could be as little as five minutes [17]. However, VHF contact is not guaranteed. If a vessel is out of range of a warship then it is almost certain that it will not be able to respond to an attack before the pirates are on board, and there is the view that pirates loiter near the IRTC waiting for potential victims to pass.

Seafarers on merchant ships activate their Emergency Communication Plan according to the procedure set up by their company. If they do not have such a plan they usually inform the company, the IMB, or, in the zone of Somali pirates, the MARLO or UKMTO. All cruise companies have their procedures well prepared in advance and passengers are briefed before entering the dangerous zone. In the majority of cases if pirates are unable to board within 30–45 minutes they will give up, so standard procedure for all ships is to increase the ship's speed to over 15 knots and start evasive manoeuvres. Further procedure depends on the following: does the ship have armed guards on board and the terms of their engagement? If pirates come close to the ship and try to set grappling hooks or ladders, fire pumps can be used, and if that defence fails the crew can muster in the "citadel" (part of the ship where they can securely lock themselves, usually the engine room) and wait for rescue. On cruise ships passengers are instructed to move away from the windows and decks and stay in designated places inside the ship. It is obvious that yachtsmen have no such possibilities and practically none of those measures except sending an emergency call can be done. In the Somali region one should make a mayday call report immediately to UKMTO Dubai. If possible, the call to UKMTO Dubai should be followed by a call to the MSCHOA, and MARLO Bahrain (which focuses on US-flagged vessels) [15].

DISCUSSION

Despite numerous diplomatic, military, and other initiatives by many governments and governmental agencies, particularly in the Indian Ocean, and the protective measures and other actions adopted by ship-owners, and ship-managers and their representatives, ships are still regularly attacked. Attacks by Somali pirates have decreased and successful hijackings have reduced due to the efforts and actions of the naval forces and preventive measures used by the merchant vessels. Coalition naval forces, the EU naval force (EUNAVFOR ATALANTA), MSCHOA, US Navy, French Alindien, NATO, UKMTO, Indian Navy, Iranian Navy, Malaysian Navy, Russian Navy, Chinese Navy, South Korean Navy, Japanese Maritime SDF, Singapore Navy, Royal Thai Navy, and Yemeni Coast Guard are active in the region securing the passage of ships through this globally important stretch of water. In the last quarter of 2011 alone, the navies have disrupted at least 20 PAGs before they become a threat to

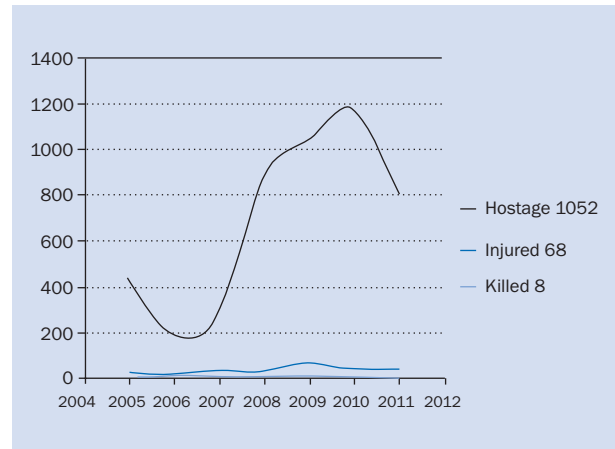


Figure 1. Violence in piracy attacks 2005–2011

commercial fleets [1]. These pre-emptive naval strikes along with the combined efforts of the Masters and crews in hardening their vessels on the lines of the Best Management Practices and the deterrent effect of PCASP-s have contributed to this decrease that continued in 2012 [1]. The role of the navies is critical to the anti-piracy efforts in this area, while in other parts of the world the success of the fight depends mainly on governments successfully cooperating and controlling their waters.

The number of successful attacks and number of hostages taken has decreased from 1,181 crewmembers in 2010 to 802 in 2011 with 45 vessels hijacked to 585 in 2012 and 28 vessels taken. A total of six crewmembers were killed throughout the 2012 [1]; eight in 2011 the same number as in 2010 (Fig. 1).

Somali pirates remain the greatest threat and they account for approximately 25% of attacks, and the number of their successful hijackings has decreased from 28 to 14. This improvement is no doubt the result of the continued efforts of international naval forces and the increased presence of armed guards on board (PCCCC). The fact is that none of the ships equipped with armed guards has been hijacked. Today, there is growing acceptance of their use because they have successfully defeated hijacking attempts. Private armed security teams are reported to have prevented 81 (43%) of the 189 attempted hijackings in which pirates fired upon vessels in 2011 [18]. Legally backed by IMO resolutions 1405, 1406, and 1408, several countries such as Great Britain and Croatia allow armed guards on board while others like Denmark strictly prohibit it. The problem is that further analysis shows that a military presence and PCCC on board do not have any deterring effect and that the number of attacks was on the rise (Fig. 2). The overall number of Somali incidents actually increased from 219 in 2010 to 237 in 2011 but significantly dropped to 75 in 2012 [1].

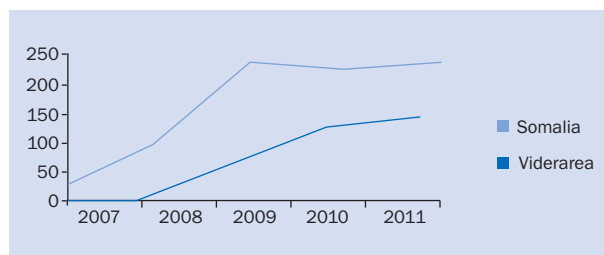


Figure 2. Actual and attempted attacks 2007–2011

At the same time disproportionate increases have been observed in other parts of the world. In the Gulf of Guinea there were 32 incidents – including five hijackings – reported in 2012 compared to 25 in 2011. Unacceptable levels of violence have been used against crewmembers. Guns were reported in at least 20 of the 32 incidents. At least one crewmember was killed and another died as a result of an attack [7]. Although the number of hostages taken in 2011 and 2012 decreased, the violence faced by seafarers, both those unfortunate enough to be captured and the thousands of seafarers who transit through the High Risk Areas continues to grow. More aggressive counter-piracy efforts from private security and naval forces have increased the level of violence faced by pirate gangs. It is estimated that 111 pirates were killed in 2011, based on data from open media sources: 78 died in direct encounters with naval forces, three died in clashes with Puntland security forces, and 30 died in fights with other pirates over ransoms and hostages [18]. The estimates indicate greater rates of extreme abuse than reported because of there are many local dhows and fishing vessels that are captured and used as mother ships that go unreported because they do not notify the official piracy reporting centres of these attacks and the crews of these vessels may be injured or killed in the initial attack or in encounters with navies and armed guards, but there is no evidence of these occurrences aside from the occasional news story to show the full extent of these unverified incidents.

Away from the limelight of statistics, two Italian security guards who shot dead two innocent Indian fishermen in a case of mistaken identity have been charged with murder in India. The problem is that perfectly legitimate tuna fishermen often employ similar tactics as pirates when chasing fish and it can be very hard to differentiate between a genuine fisherman and a prospective pirate [17]. It is clear that the regulation and vetting of the PCASP still needs to be adequately addressed and that procedures regarding engagement must come under scrutiny.

From the very beginning of proposing PCRDE on board in 2010, there have been many organisations that have opposed the use of armed guards because of the risk that

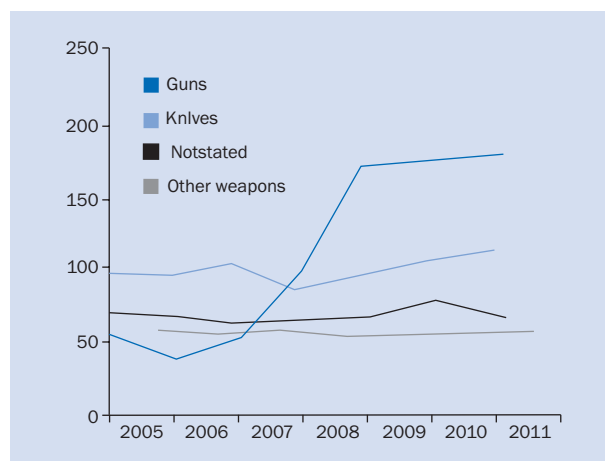


Figure 3. Types of arms used during attacks 2005–2011

they would increase the degree of violence, and that concern appears to prove true in some ways. Publicly available reports on pirate engagements with security personnel suggest that pirates do not automatically retreat when they are fired upon, but instead are engaging armed guards in fire fights that put the crews at greater risk of being shot [18]. The willingness of pirates to accept these risks shows either their ignorance of the dangers associated with piracy, or the level of their desire to capture a vessel and negotiate a ransom, and the pirates' acceptance of these risks appears to correlate with an increased acceptance of violence inflicted on their hostages to acquire payment. They are also adapting their tactics and are now using greater firepower in their attacks, especially when they encounter vessels carrying private armed security (Fig. 3).

Due to the pirates' heightened insecurity they prefer to keep hostages aboard anchored vessels where they find it easier to prevent rescue attempts. When circumstances require them to keep hostages on land, they are more likely to move them from place to place and separate them in groups to avoid rescue attempts, especially after US Navy SEALs rescued two aid workers from the Danish Demining Group in January 2012. A disconcerting trend has seen certain hostages separated from their vessels and taken ashore, or denied freedom when a ransom is paid because of their nationality. The dangers for the "High-Risk Hostages" are most concerning, both because of the violence they face and the uncertainty over when, or if ever, they will be released [18]. Also the average length of captivity for hostages held in 2011 was eight months, 50% more than in 2010. The risk of being subjected to violent crime and mistreatment increases with prolonged periods of captivity, including increased rates of assault and abuse, increased risk of disease and malnutrition, greater likelihood of giving up hope (a hostage committed suicide in 2010 during pro-

longed captivity), and being transferred from gang to gang. With the support of the Somali Transitional Government, in May, EU forces launched an air strike on a pirate base in Somalia. The attack destroyed pirate equipment and skiffs on the beach. It is likely that there will be more strikes in the future. The risk has also expanded to affect tourists and humanitarian aid workers who have become victims of Somali pirate gangs. Additionally, growing violence between pirate gangs has adverse effects both on hostages and on Somali civilians.

One of the significant changes in 2011 was the increased number of hostage deaths. Deaths were assessed using EU NAVFOR, Compass Risk Management, and open media sources. Of the 1,206 hostages, 35 (3%) are reported to have died in 2011. There were many causes of death, including being killed by pirates either in the initial attack or after being taken captive, disease or malnutrition, failed escape attempts, or getting caught in crossfire during a rescue effort by a naval vessel. In cases where seafarers were killed during rescue attempts, they were being used as human shields by pirates [18].

CONCLUSIONS

Recent data from the IMB indicate continuing piracy activity despite the army presence in the Somali region and the increased presence of armed guards on board. While the number of successful attacks is on the decline the number of deaths and injuries has not declined significantly and attacks are becoming more violent. Such a change in the character of the attacks could also be attributed to the presence of the armed guards on board and pirates appropriately changing their tactics, using higher levels of violence to achieve their goals. Although piracy can be devastating for ship owners and particularly the crews, it is still a reasonably localised issue not affecting a large group of leisure travellers. Successful hijackings have reduced due to the efforts and actions of the naval forces and preventive measures used by the merchant vessels including the use of citadels and the employment of PCASP. Unfortunately, the level of violence is rising and we can expect higher levels of violence from both sides [2]. The Somali Transitional Federal Government had called upon the international community to provide arms for their Marine Force. The President, Sheikh Sharif Sheikh Ahmed, said "These pirates do not live at sea; they live in Somalia. Who better to battle them than the people of the land? We are completely ready to combat this problem. Despite our limited funds, we are ready to train and set up a marine force that would attack and dispel all pirate activities". No matter how significant the military presence, the affected waters consist of 2.6 million square miles of sea (an area greater than the size of Europe) and there are only 30 warships available at any one

time; some of these are unavoidably in port and some are escorting world food aid programme shipping; all of which reduces resources for further patrolling the area. This means that in the reality of increased violence, protection is only partial and only a few countries allow PCSPs on board, and not all companies can afford such expensive protection. Piracy can only be reduced by state control and political stability. Somalia is a failed state and the naval force is merely tackling the symptoms of the problem. The victims also lack adequate protection under the law because, in addition to the lack of effective policing (or government) in Somalia and in some other countries, offshore authority is fragmented, there is no lead law enforcement agency designated to protect seafarers and other victims of piracy, and it is also unclear who should prosecute pirates following apprehension.

A solution to the root cause that spawns piracy will require political intervention if it is to be resolved; yet there appears to be no international appetite for this. Piracy remains a profitable enterprise so long as there are no serious sanctions against it, with millions of dollars exchanging hands without much publicity or fanfare.

REFERENCES

1. ICC-International Maritime Bureau, Piracy and Armed Robbery Against Ships, Report for the period 1 January – 31 December 2012. ICC-International Maritime Bureau, London, 2012.
2. ICC-International Maritime Bureau, Piracy and Armed Robbery Against Ships, Report for the period 1 January – 31 December 2011. ICC-International Maritime Bureau, London, 2011.
3. ICC-International Maritime Bureau, Piracy and Armed Robbery Against Ships, Report for the period 1 January – 31 December 2003. ICC-International Maritime Bureau, London, 2004. IMB 2003.
4. Hansen LH. Surveillance of deaths on board Danish merchant ships, 1986-93: implications for prevention. *Occup Environ Med* 1996; 53: 269–275.
5. Roberts SE. Work-related homicides among seafarers and fishermen. *Int Marit Health* 2004; 55: 7–18.
6. Piracy attacks in East and West Africa dominate world report [Internet]. ICC [cited 19 January 2012]. Available from: <http://www.icc-ccs.org/news/711-piracy-attacks-in-east-and-west-africa-dominate-world-report>.
7. ICC-International Maritime Bureau, Piracy and Armed Robbery Against Ships, Report for the period 1st January – 30 June 2012, ICC-International Maritime Bureau, London, 2011.
8. Murphy M. Somalia, the New Barbary – Piracy and Islam in the Horn of Africa. C Hurst & Co Publishers Ltd; London 2010.
9. Piracy at sea, past and present [Internet]. UK Essays [cited 30 May 2012]. Available from: <http://www.ukessays.com/essays/general-studies/piracy-at-sea-past-and-present.php>.
10. Hashised A. Multi-track Strategy on Resolving Piracy Crisis in the Horn of Africa. In: Book of Proceedings, Maritime Security and Anti-Piracy Conference, London, 2010.
11. Idrani N. Maritime Piracy as a Threat to Seafarers' Health, Presentation at ISMH 11, Odessa, 2010.
12. Alessi C. Combating Maritime Piracy. [Internet]. Council on Foreign Relations. [cited 30 May 2012]. Available from: <http://www.cfr.org/france/combating-maritime-piracy/p18376>
13. Cox S. Who do pirates call to get their cash? [Internet]. BBC [cited 20 June 2012]. Available from: <http://news.bbc.co.uk/2/hi/7847351.stm>

14. Radivojevic G. Morski Razbojnici – Pirati 20. Stoljeca. Otokar Kersovani, Opatija, 2000.
15. Danger of Piracy [Internet]. International Sailing Federation [cited 19 January 2012]. Available from: www.noonsite.com/Noonsite/PDF_Files/Piracy3.
16. Q&A: Somali Piracy [Internet]. BBC News Africa [cited 20 June 2012]. Available from: <http://news.bbc.co.uk/2/hi/africa/7734985.stm>.
17. International Sailing Federation. Danger of Piracy – Guidelines for yachts considering a passage through the Gulf of Aden, Yemeni and Somali waters including the NW Indian Ocean north of 15° south and west of 60° east April 2009.
18. Hurlburt K. The Human Cost of Somali Piracy, 2011. International Maritime Bureau and Oceans Beyond Piracy, 2012.
19. Weisaeth L. Torture of a Norwegian ship's crew. The torture, stress reactions and psychiatric after-effects. *Acta Psychiatr Scand (suppl.)* 1989; 355: 63–72.
20. Good Practice Guide for Shipping Companies and Manning Agents for the Humanitarian Support of Seafarers and their Families. Maritime Piracy Humanitarian Response Program 2011.
21. Bisson JI, Searle MM, Srinivasan M. Follow-up study of British military hostages and their families held in Kuwait during the Gulf War. *Br J Med Psychology* 1998; 71: 247–252.
22. Bigot T, Ferrand I. Hostages victimology: study of 29 victims. (French) *Annales Medico-Psychologique* 1998; 156: 22–27.
23. Easton JA, Turner SW. Detention of British citizens in the Gulf – health, psychological, and family consequences. *Br Med J* 1991; 303: 1231–1234.
24. Harkis BA. The psychopathology of the hostage experience. *Medicine Science Law* 1986; 26: 48–52.
25. McDuff DR. Social issues in the management of released hostages. *Hospital Community Psychiatry* 1992; 43: 825–828.
26. Tajlor AGW, Nailatikau E, Walkey FH. A Hostage Trauma Assignment in Fiji. *Australian J Disaster Trauma Studies* 2002; 2: 1–9.
27. Dabo J, Stojanović D, Rovis D. The health behaviour among students of maritime study. In: Nikolic N, Carter T eds. *Book of Proceedings: 8th ISMH*. Studio Conex, Rijeka 2006: 81–83.